AN EXAMINATION OF COMMUNICATION APPREHENSION AMONG 11 TO 12 YEAR-OLD LEARNERS IN MALAYSIAN PRIMARY SCHOOLS

PRIYADHARISHINY RAJEINDRAM

Thesis submitted to the School of Education

Faculty of Arts and Social Sciences

University of Nottingham Malaysia

In partial fulfillment of the requirements for the Degree of

Doctor of Philosophy

2023

ACKNOWLEDGMENT

This journey has not been an easy one, but it was made possible with the support that I have received from my supervisors, family and friends.

First and foremost, I am sincerely thankful to my supervisors, Dr Lucy Bailey and Dr Wong Tze Peng for their tremendous support and guidance. They have not only given me constructive comments and insightful ideas in shaping my work, but have also supported me throughout this journey. I am also forever grateful to the late Prof Dr Ganakumaran Subramaniam. He believed in me from the very beginning and played a very important role in this journey.

I would also like to express my sincere gratitude to my dear parents Mr Rajeindram Chelliah and Ms Selvakumari Thambirajah, my sister Ms Brinthakumari Rajeindram, and my better half, Mr Jatheesh Mohan for being a great driving force and motivating me to complete this thesis. Without the constant support and encouragement from them, I would not have been able to come this far. Special thanks to Danny Raj for being my stress relief and for his unconditional love.

My heartfelt gratitude also goes to my dear friend, Dr Chai Xun Yu, for her generous support, especially in times of difficulty and frustration. Last but not least, I would like to thank all the participants involved in this research.

ABSTRACT

Learners who experience communication apprehension (CA) have a tendency to avoid and withdraw from interactions, and subsequently have reduced opportunities for both language learning and mastery of language specific skills through verbal interactions in the classroom. There is a lack of understanding of CA phenomenon among young learners resulting in difficulty to identify and address CA at an early age. This research used a mixed method design through four studies to understand CA among young learners (11 – 12 years old) in Malaysian primary school classrooms.

Study 1 (presented in Chapter 2) identified the association of individual trait factors, namely gender, ethnicity and personality traits on the total CA, classroom communication fear, general communication fear and stranger communication fear of 614 Malaysian primary school learners. It employed a cross-sectional quantitative design survey method. Study 2 (presented in Chapter 3) and Study 3 (presented in Chapter 4), used the qualitative multiple case study research design to explore the behaviours of five high CA learners and five low CA learners respectively. Learners' interactional behaviours with their teachers and in relation to CA were identified through classroom observations, and both teacher and learner interviews. Study 4 (presented in Chapter 5) explored six English language teachers' perceptions of CA through a qualitative design comprising semi structured interviews that focused on their understanding of the causes, characteristics, impact and mitigation strategies of CA.

Firstly, the regression analyses revealed that higher neuroticism personality and Indian ethnicity uniquely predicted higher general and stranger CA scores, while higher extraversion and openness personalities, and being a male learner uniquely predicted lower total CA scores. However, the regression analyses and the chi-squared test in this research

highlighted that at a young age, gender attributes may only play a small role for the influence on learners' CA. Secondly, behavioural observations highlighted specific behaviours (e.g., gaze behaviours, facial activities, and body movements) that were found to be different as well as similar between young learners with high CA and low CA. Studies 2 and 3 identified a combination of CA behaviours instead of individual behaviours among the high CA learners. Although both high CA and low CA learners displayed smiling and glancing away behaviours, there were specific nuances that differentiated them as high CA and low CA behaviour. Thirdly, teachers' perceptions of CA causes were interconnected with their perceived CA mitigation strategies. Although they demonstrated an understanding of learners' CA in the classroom context, their reported classroom practices and questioning strategies were not drawn from instruction that could effectively mitigate learners' CA in the classrooms.

Through the studies conducted in this thesis, this research extended current knowledge on the CA phenomenon to young learners, specifically on the prominent characteristics of young learners with CA (i.e., traits and behaviours) during interactions with teachers in the Malaysian classroom context. Although there are similarities in CA among young learners and adult learners, young learners differ by demonstrating more smiling behaviours, and also by the additional associations found between specific personality traits (i.e., openness and emotional sensitivity) and CA. By unravelling the prominent behaviours and traits reported in this research, this research has implications for the language learning classrooms to identify and mitigate learners with CA. Future studies can focus on further exploration of these characteristics as possible markers and indicators of CA among young learners.

TABLE OF CONTENTS

ACKNOWLEDGMENT ..... *i*

ABSTRACT ..... *ii*

TABLE OF CONTENTS ..... *iv*

LIST OF FIGURES ..... *xi*

LIST OF TABLES ..... *xii*

LIST OF ABBREVIATIONS ..... *xiv*

CHAPTER ONE: INTRODUCTION *1*

1.1 Communication Apprehension 2

1.1.1 Communication Apprehension Manifestations 6

1.1.2 Communication Apprehension in Educational Contexts 8

1.1.3 Communication Apprehension Measurement 14

1.1.4 Communication Apprehension and Teacher Perceptions 16

1.2 Context of the Research: Malaysian Primary School Classrooms 17

1.3 Summary of Research Gaps 20

1.4 Research Aims and Questions 21

1.5 Significance of the Research 23

1.6 Research Paradigm 24

1.7 Conceptual Framework 25

1.8 Structure of the Thesis 28

1.9 Conclusion 32

CHAPTER TWO: STUDY 1 - INDIVIDUAL TRAIT FACTORS AND COMMUNICATION APPREHENSION *33*

2.1 Background 33

2.1.1 Gender Differences in Communication Apprehension 36

2.1.2 Ethnicity and Communication Apprehension....38

2.1.3 Personality Traits....41

2.1.4 The Current Study....47

2.2 Method....49

2.2.1 Research Design....49

2.2.2 Participants....49

2.2.3 Instruments....52

2.2.4 Data Collection and Analysis....57

2.3 Results....62

2.3.1 Association of Gender and Ethnicity With Communication Apprehension....62

2.3.2 Association of Personality and Communication Apprehension....64

2.3.3 Factors That Predict Communication Apprehension....71

2.4 Discussion....80

2.4.1 Gender and Communication Apprehension....80

2.4.2 Ethnicity and Communication Apprehension....81

2.4.3 Personality and Communication Apprehension....83

2.4.4 Implications....85

2.4.5 Limitations....87

2.4.6 Conclusion....88

CHAPTER THREE: STUDY 2 - BEHAVIOURS OF HIGH COMMUNICATION APPREHENSION LEARNERS....90

3.1 Background....92

3.1.1 Behavioural Manifestations of Communication Apprehension....92

3.1.2 Teacher-Learner Interaction in the Classroom 99

3.1.3 The Current Study 102

3.2 Method 103

3.2.1 Research Design 103

3.2.2 Participants 105

3.2.3 Research Instruments 109

3.2.4 Data Collection and Analysis 120

3.3 Results 124

3.3.1 High CA Case Study 1 – Chandran 124

3.3.2 High CA Case Study 2– Siva 129

3.3.3 High CA Case Study 3 – Ahmad 135

3.3.4 High CA Case Study 4 – Faris 140

3.3.5 High CA Case Study 5 – Rizwan 145

3.3.6 Cross-Case Analysis – High CA 150

3.4 Discussion 158

3.4.1 Quality of Learner Responses and Teacher Questions 158

3.4.2 Behaviour of Learners with High CA 160

3.4.3 Personality of Young Learners with High CA 164

3.4.4 Implications 165

3.4.5 Limitations 167

3.4.6 Conclusion 167

CHAPTER FOUR: STUDY 3 - BEHAVIOURS OF LOW COMMUNICATION APPREHENSION LEARNERS.....169

4.1 Background.....169

4.1.1 The Current Study.....172

4.2 Method.....172

4.2.1 Participants.....172

4.2.2 Research Instruments.....175

4.2.3 Data Collection and Analysis.....176

4.3 Results.....178

4.3.1 Low CA Case Study 1 – Vivek.....178

4.3.2 Low CA Case Study 2 – Vincent.....184

4.3.3 Low CA Case Study 3 – Gurmeet.....189

4.3.4 Low CA Case Study 4 – Aarav.....195

4.3.5 Low CA Case Study 5 – Shankar.....199

4.3.6 Cross-Case Analysis – Low CA.....204

4.4 Discussion.....213

4.4.1 Quality of Learner Responses and Teacher Questions.....213

4.4.2 Behaviour of Learners with Low CA.....215

4.4.3 Personality and CA.....218

4.4.4 Implications.....218

4.4.5 Limitations.....219

4.4.6 Conclusion.....220

CHAPTER FIVE: STUDY 4 – TEACHERS' PERCEPTIONS OF YOUNG LEARNERS' COMMUNICATION APPREHENSION *222*

5.1 Background 223

5.1.1 Teachers' Perceptions of Communication Apprehension 223

5.1.2 Teachers' Classroom Practices and Role 230

5.1.3 The Current Study 233

5.2 Method 234

5.2.1 Research Design 234

5.2.2 Participants 234

5.2.3 Research Instrument 235

5.2.4 Data Collection and Analysis 236

5.3 Results 239

5.3.1 Causes of Communication Apprehension 241

5.3.2 Characteristics of Communication Apprehension Learners 244

5.3.3 Implications of Communication Apprehension. 250

5.3.4 Mitigation Strategies of Communication Apprehension. 252

5.3.5 Teachers' General Classroom Practices 259

5.4 Discussion 264

5.4.1 Communication Apprehension is Contextually Situated 264

5.4.2 Interconnection Between Perceived Causes and Communication Apprehension Mitigation Strategies 266

5.4.3 Lack of Alignment between Perceived Communication Apprehension Mitigation Strategies and Reported General Classroom Practices 267

5.4.4 Characteristics of Learners with Communication Apprehension 269

5.4.5 Teacher Perceptions of Implications of Communication Apprehension.....273

5.4.6 Implications 274

5.4.7 Limitations.....274

5.4.8 Conclusion 275

CHAPTER SIX: CONCLUSION 277

6.1 Summary of Key Findings.....278

6.1.1 Study 1 - What are the associations of individual trait factors (i.e., gender, ethnicity, personality traits) and communication apprehension of Malaysian primary school learners? 278

6.1.2 Study 2 - How do Malaysian primary school learners with high communication apprehension behave when answering teacher questions in English in the ESL classroom? 279

6.1.3 Study 3 - How do Malaysian primary school learners with low communication apprehension behave when answering teacher questions in English in the ESL classroom? 280

6.1.4 Study 4 - How do English language teachers' perceive Malaysian primary school learners' communication apprehension?.....282

6.2 Significance and Original Contribution.....284

6.3 Implications.....291

6.4 Limitations 294

6.5 Suggestions for Future Research.....296

6.6 Conclusion 299

REFERENCES.....300

APPENDIX A – Information Sheets and Consent Forms *350*

APPENDIX B - Survey Instrument *365*

APPENDIX C - Survey Scoring Guideline *376*

APPENDIX D - Assumptions of Statistical Tests (Study 1) *377*

APPENDIX E - Observation Guideline for Teachers *384*

APPENDIX F - Learner Interview Protocol *386*

APPENDIX G - Teacher Interview Protocol *389*

APPENDIX H - Coding Schemes *393*

APPENDIX I - Personality Traits of Case Study Learners *400*

APPENDIX J - Question and Answer Frequency Counts *402*

APPENDIX K – Teachers' Demographic Data Form *404*

APPENDIX L – Interviewee Transcript Approval Form *406*

LIST OF FIGURES

Figure 1.1	*Communication Apprehension Continuum (Richmond et al., 2013)*	3
Figure 1.2	*Conceptual Framework*	26
Figure 2.1	*Clustered Bar Count of Ethnicity by Gender*	51
Figure 3.1	*The Categorization of the Behaviours in this Present Study.*	103
Figure 3.2	*Pupil Labs' Mobile Eye Tracking Headset (Pupil Labs, 2019)*	110
Figure 3.3	*Data Collection Procedure*	122
Figure 5.1	*Thematic Map*	240
Figure 5.2	*The Order of Analysis*	241
Figure 5.3	*Interconnection between Causes and Mitigation Strategies*	266
Figure 5.4	*Lack of Alignment between CA Mitigation Strategies and General Classroom Practices*	268

LIST OF TABLES

Table 1.1	*Overview of the Aim, Background and Method for each of the Individual Studies in This Thesis*	30
Table 2.1	*Definitions of Each Big Five Dimension (John & Srivastava, 1999, p.30)*	42
Table 2.2	*Frequency Counts of Schools and Demographic Data*	50
Table 2.3	*List of Statements for each PRCF Subdimension*	53
Table 2.4	*Hierarchical Multiple Linear Regressions' Models for Analysis*	61
Table 2.5	*Gender and Ethnicity Distribution of Communication Apprehension Levels and Chi Square Test of Independence*	63
Table 2.6	*Factorial ANOVA for the Effects of Gender and Communication Apprehension Group on Personality Traits*	64
Table 2.7	*Factorial ANOVA for the Effects of Ethnicity and Communication Apprehension Group on Personality Traits*	68
Table 2.8	*Descriptive Statistics and Correlations for Study Variables*	73
Table 2.9	*Results of Hierarchical Multiple Linear Regressions*	77
Table 3.1	*Key Factors Guiding The Use of Case Study Design*	104
Table 3.2	*Demographic Data of Case Study Learner Participants (Study 2)*	108
Table 3.3	*Summary of QAELT Coding Scheme Adopted from Smit et al. (2021)*	117
Table 3.4	*Summary of Behaviour Coding Scheme Adopted from Lindberg et al. (2021)*	119
Table 3.5	*Interpretation of Reference Codes*	123
Table 3.6	*High CA Case Study Learners' Table of Summary*	152

Table 3.7	*High CA Case Study Learners' Behaviours*	157
Table 4.1	*Demographic Data of Case Study Learner Participants (Study 3)*	174
Table 4.2	*Low CA Case Study Learners' Table of Summary*	205
Table 4.3	*Low CA Case Study Learners' Behaviours*	212
Table 5.1	*Demographic Data of Teacher Participants*	235
Table 5.2	*Example of Codes Generated*	238
Table 6.1	*Behaviours Displayed by High CA and Low CA Learners in this Research*	287
Table 6.2	*Summary of Implications of Each Study*	292

LIST OF ABBREVIATIONS

BFI	Big Five Inventory
CA	Communication Apprehension
CCF	Classroom Communication Fear
ESL	English as a Second Language
GCF	General Communication Fear
PPTQ-C	Pictorial Personality Traits Questionnaire for Children
PRCA	Personal Report of Communication Apprehension
PRCF	Personal Report of Communication Fear
QAELT	Questions and Answers in English Language Teaching
SCF	Stranger Communication Fear
SPSS	Statistical Package for the Social Sciences

CHAPTER ONE: INTRODUCTION

> "*There never will be enough research on communication apprehension until the effects of high CA can be prevented for everyone"* (McCroskey, 2009, p.169)

This thesis reports on communication apprehension (CA) experienced by 11-12 year old primary school learners in the Malaysian context. To understand the CA phenomenon among these young learners[1], the individual traits and behaviours that are associated with CA are examined through the use of quantitative and qualitative research designs comprising survey, classroom observations, and teacher interviews. It is important to understand the CA phenomenon especially among young learners as CA has been demonstrated to have detrimental effects on learners' language learning (Joyce et al., 2006; McCroskey & Anderson, 1976; Pappamihiel, 2002; Zheng, 2008). By giving emphasis on young learners' CA, it would subsequently enable CA to be mitigated at an early stage before it develops further with age. This introductory chapter presents an overview of the present research. This chapter begins with the background of the research and the influences for the decisions made to conduct this present research on the integration of individual traits and behaviours associated with CA. It is then subsequently followed by the aims of conducting the research, the research questions, significance of the research, and ends with the research paradigm as well as the conceptualisation of research and how the thesis is structured.

[1] In this thesis, the term 'young learners' is used to refer to primary school learners, to ensure consistency with past studies in the field of language learning and anxiety that involved primary school learners of the age of 12 and below (e.g., Butler, 2015; Nilsson, 2019; Yim, 2014).

1.1 Communication Apprehension

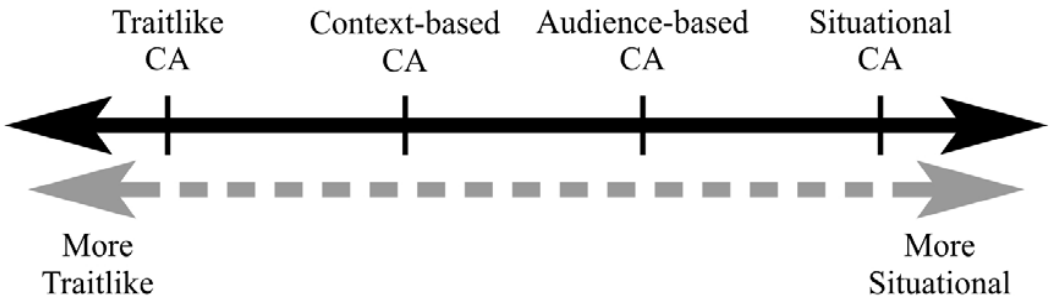
McCroskey (1970) first coined the term CA to refer to "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (p. 269). Individual experience of CA may occur in various modes of communication such as speaking, writing, or singing (Bodie, 2010; Crocker et al., 2016). Specific to the spoken mode of communication, the experiences of CA are known as oral CA. Oral CA can be related to anxiety about communication and avoiding communication such as communication reticence and unwillingness to communicate (Hunter et al., 2014; McCroskey et al., 2014), or specific to communicative contexts, e.g., on a one-to-one basis, in groups, in meetings, or public speaking (Beatty et al., 1998; Byrne et al., 2012; McCroskey, 2009; Wrench, et al., 2007). CA is a phenomenon that is not specific to a type of communication or to a particular situation but a phenomenon that may vary from one individual to another because of differences in individuals' anxiety threshold (Zheng, 2008). CA therefore, can result in a number of individual differences in the effectiveness of communication, amount of communication, and desire for communication (Richmond & McCroskey, 1998). Although CA can be defined according to anxiety behaviours or contexts, McCroskey's (1970) definition of CA applies to all communication contexts or communication channels, thus adopted in this research.

Following the broad application of McCroskey's (1970) definition of CA, McCroskey (1983) conceptualised a CA continuum that comprises four specific types of CA. One end of the continuum is the trait-based apprehension, and the other end of the continuum is state-based or situational apprehension (Figure 1.1). Trait-based or trait-like CA occurs when an individual experiences anxiety in all communicative situations, including imagined social interactions (Bodie, 2010; Choi et al., 2015; McCroskey, 2009). Trait-like CA is enduring and more likely to recur over an individual's lifetime, while situational CA occurs when an

individual is inclined towards having feelings of anxiety only in a specific communicative situation, it is transitory and it fluctuates over time (Hunter et al., 2014). Moving from the trait end to the situational end of the continuum, are the four types of CA: (i) CA as a trait, (ii) CA in a particular situation (context-based), (iii) CA with a given audience across situation, (iv) CA with a given individual or group in a given situation. Figure 1.1 below from Richmond et al. (2013, p.34) displays the various types of CA and where they are positioned in on the continuum.

Figure 1.1

Communication Apprehension Continuum (Richmond et al., 2013)



First, CA as a trait or trait-like CA is a personality-type orientation toward a specific type of communication across various contexts. Next, CA in a particular situation or context-based CA is when individuals are fearful or anxious about communicating in a specific context, while not fearful or anxious in another context. Third, CA with a given audience across situation or audience-based CA is an enduring orientation toward communication but with a given person or group of people. Fourth, CA with a given individual or group in a given situation or situational CA is a transitory orientation toward communication with a given individual or group of people. Understanding the various types of CA is important as

Hunter et al. (2014) argued that the distinctions of these CA types allow instructors and teachers to design teaching responses that will mitigate learners' anxieties.

Based on the specifications of these four types of CA, it may be viewed that CA as a trait, is inherent, while the remaining three types i.e., CA in a particular situation, CA with a given audience across situation and CA with a given individual or group in a given situation are associated with one's environment. These different types of CA do not necessarily represent different types of individuals, rather the types of CA one may face, and it is even possible to experience more than one at the same time (McCroskey, 2011). While McCroskey's continuum views each CA as exclusive, it is possible that traits such as gender and personalities interact with one's environment which comprises a combination of context, audience, and situation to impact on the extent of the CA. For instance, adult female learners were found to have significantly higher CA in specific contexts such as oral presentations and meetings, but they were not significantly different than male learners for talking in groups (Loureiro et al., 2020).

The perspectives of CA in the classroom are shifting from the social learning paradigm, which views CA as a behaviour developed through reinforcement and modelling, i.e., nurture (Beatty et al., 2001), to the communibiology paradigm, which argues that all important communication processes and behaviours as expressions of temperament or in other words, genetic inheritance, i.e., nature (Beatty & McCroskey, 2000; Beatty & McCroskey, 2009). Based on the social learning paradigm, CA is viewed as a behaviour that individuals learn early in life and CA behaviours may be corrected through training and intervention methods (Bodie, 2010; McCroskey, 2009). The social learning researchers are focused on investigating the measures for reducing or treating CA. Communibiology views CA as innate and somewhat incurable (Hazel et al., 2014; Hickson & Stacks, 2010), thus it focuses on creating environments to assist learners with high levels of CA to cope with their

anxiety. Teaching communication skills helps learners with high CA to manage their anxiety or difficulties and lessen their CA experiences especially in communicative scenarios in the classroom (Blume et al., 2013). However, I argue that CA could be viewed as an interaction of both nurture (environment/situation) and nature (trait), as it is possible that the development of CA may be led by both learners' experiences as well as innate attributes.

There have been variations in past findings to explain the way in which environment and traits influence CA. Research on CA has found that home and school environments influence learners' CA (Carabeo & Juanillas, 2022; Daly & Friedrich, 1981; McCroskey et al., 1981). For instance, specific to home environment, it has been indicated that parental styles such as authoritarian and permissive styles were associated with high anxiety among learners (Timpano et al., 2015). Specific to school environment, it has been established that it is especially important for learners to have a safe, comfortable and positive classroom environment in order for their CA to be alleviated (Carter & Hansford, 1999; Inada, 2021). However, it has also been found that the environment has only small effects on CA (Beatty & Pascual-Ferra, 2016) but traits has been found to play an important role in CA (Beatty et al. 1998; Jung & McCroskey, 2004; Opt & Loffredo, 2000). For instance, neuroticism and extraversion personality traits have been found to be positively and negatively associated with learners' CA (Hammick & Lee, 2014; MacIntyre & McKay, 2019). Nonetheless, I argue that environment and traits do not influence CA independently but they both interact for the influence on CA.

In relation to the influence of the interaction between environment and traits on CA, it is important to note that past studies have shown how CA was impacted by the learners' traits, particularly gender and personality, as well as the environment. Studies revealed that female learners experienced more anxiety than male learners. Rafek et al. (2014) reported that among Japanese learners who enrolled in a language immersion programme at a

university in Malaysia, the anxiety levels of female learners were higher than the male learners. Although female learners have been found to generally have higher levels of CA, it was suggested that female learners' higher levels of anxiety could be due to an interaction between gender and emotional traits such as confidence, security and superiority (Rafek et al., 2014). Moreover, female learners have been found to be prone to feeling more anxious as they have been found to have higher level of metacognitive worrying thoughts i.e., their worry is uncontrollable (Bahrami & Yousefi, 2011). Specific to the environment and contexts, Loureiro et al. (2020) compared CA levels among male and female learners within the Social and Human Sciences department in a University in Portugal and revealed that female learners in the study were more anxious than male learners in communication contexts such as meetings and oral presentations. As it is evident that trait and environment play an interactive role for the influence on learners' CA, this research takes on both social learning as well as communibiology views of learners' CA, by examining the traits of learners as well as the classroom practices which may have an impact on learners' CA. This may provide a more comprehensive understanding of CA, in which the aetiology of CA experiences has yet to be established by the literature (McCroskey, 2011; Russ, 2013) and past studies have not given sufficient attention to understand the concepts and experiences of CA (Hazel et al., 2014; Hickson & Stacks, 2010).

1.1.1 Communication Apprehension Manifestations

The manifestations of high CA levels across situations or traits could be physiological, behavioural, and emotional. Physiological manifestation of CA refers to physical symptoms or bodily reactions. The possible physiological manifestations of high CA include sweaty palms, shaking knees, increased heart rates, disfluencies of speech and quivering voice (Bodie, 2010). Behavioural manifestations are the observable verbal or non-

verbal actions when learners engage in communication. The behavioural manifestations of individuals with high CA include avoiding communicative situations (McCroskey, 1997) and using minimal verbal and nonverbal communication with others which can hinder, debilitate, and negatively affect relationships (Hunter et al., 2014). High levels of CA have been linked with maladaptive behaviours such as high levels of self-criticism, ongoing social anxiety, depression, and self-injury, all of which disrupt normal relationships and interpersonal interaction (Shahar et al., 2012). The emotional manifestations of high CA refer to individuals' feelings when they are communicating with others and these include feelings of disquiet, uneasiness, apprehension, or nervousness (Byrne et al., 2012; McCroskey, 2009). Individuals may also experience intruding thoughts such as thinking about being negatively judged or appear incompetent (Bodie, 2010). In addition, emotional manifestations of high CA have been linked to social emotional consequences as individuals with high CA may have high levels of negative thinking and negative attitudes toward themselves and also others (Shi et al., 2015). These past studies that have explored manifestations of CA predominantly involved adult learners in public speaking and oral presentation contexts, and these studies conducted are dated as recent literature have not given much attention to CA manifestations. Thus, there is a need to explore CA manifestations in the current time, focusing on young learners in classroom contexts.

Although the physiological, behavioural and emotional manifestations of CA have been explored, there is a lack of knowledge on whether these manifestations of CA are applicable across different age groups and to learners in the recent years. Past studies on general anxiety have shown that children's anxiety experiences are different from adults' in many ways (Beesdo et al., 2009; Mian et al., 2012; Washington, 2009). Firstly, at an older age, middle childhood to early adolescence children experience greater anxiety as they have reached a higher developmental level to understand their environment better and have a

greater tendency to have personal and social challenges than younger children (Washington, 2009). Secondly, the types of symptoms of anxieties differ according to age groups. A comparison of general anxiety's internalised symptoms between children below three years old and above three years old indicated that the older children, when feeling anxious, had the tendency to display more concentration difficulties such as difficulty paying attention and appearing to be restless while the younger children displayed more worrying related symptoms (Mian et al., 2012). In addition, when comparing the physical symptoms of general anxiety across elementary, middle school and high school learners, Mazzone et al. (2007) revealed that middle school learners who were transitioning to the adolescence stage in life, demonstrated more prevalent symptoms of restlessness, tenseness, and shaking than elementary and high school learners. Given the general anxiety differences between learners of different age groups, I argue that without a clear understanding of the manifestations of CA in young learners, the question of whether the manifestations of CA established by past studies are generalisable and applicable to young learners, remains open.

1.1.2 Communication Apprehension in Educational Contexts

While CA among young learners can occur in many situations, its presence in the educational context can be detrimental to young learners' learning. In the educational contexts, particularly in schools and classrooms that require the use of a non-native language, there are several contributing factors that have been identified to increase fear and anxiety among learners to communicate. One of the most salient causes of CA is the fear of negative and peer evaluation (Byrne et al., 2012; Carabeo & Juanillas, 2022; Molnar & Crnjak, 2018). Learners fear that they will be negatively perceived and evaluated by their peers in the classroom for their mistakes in their spoken language, thus leading to an increase in their CA in classroom contexts (Byrne et al., 2012). The fear of being monitored by everyone in the

class, especially in specific communication situations such as group interactions, and public speaking has been shown to be associated with difficulties to speak and little control over their performances.

While past studies have shown that fear of negative and peer evaluation as a contributing factor to CA in the classroom, Horwitz et al. (1986) specifically relates CA as one of the constructs of foreign language anxiety (FLA). Within the FLA framework, there are three constructs (CA, fear of negative evaluation and test anxiety) that represent FLA, which are predominantly performance oriented anxieties. Horwitz et al. (1986) defined CA as "a type of shyness characterized by fear or anxiety about communicating with people" (p.127). Besides CA, FLA is also associated with test anxiety or "a type of performance anxiety stemming from a fear of failure" (p.127), and fear of negative evaluation in any social, evaluative situation (Horwitz et al., 1986). These FLA constructs subsequently hinder English as a foreign language (EFL) and English as a second language (ESL) learners' concentration while speaking (Horwitz & Young, 1991; Pappamihiel, 2002; Zheng, 2008). However, the FLA framework narrowly focuses on the performance orientation of CA by separating negative evaluation from CA, in which I view that based on the evidence shown in the literature, fear of negative evaluation is not independent from CA, rather a factor that is highlighly relevant to learners' development of CA especially in educational contexts. Thus, the FLA framework by Horwitz et al. (1986) will not be further pursued in this study.

High CA in the classroom can lead to negative implications. Anxieties experienced by learners relevant to speaking have been associated with low academic performance and participation in EFL and ESL classrooms (Joyce et al., 2006; McCroskey & Anderson, 1976; Pappamihiel, 2002; Zheng, 2008). High CA negatively influences learners' ability to adapt to the environment and achieve their goals, whereas learners who experience lower CA tend to adapt faster to new learning environments (Rafek et al., 2014). CA can also be an

inhibiting factor of learners' development of adequate communication skills which then leads to learners' poor participation in the classroom (Allen & Bourhis, 1996; Cristobal & Lasaten, 2018; McCroskey & Anderson, 1976). Learners with high CA may still choose to opt out of critical discussions even though they may have the knowledge to contribute (Blume et al., 2013). In addition, learners may also be hesitant to voluntarily interact in the classrooms as a result of not being able to construct grammatically correct sentences as well as not having the knowledge on the topic of discussion (Malik et al., 2021). As CA is detrimental to classroom learning, there is a need to understand the CA phenomenon in order to create supportive classroom environments in the early stages of language learning for young learners with high levels of CA (Carter & Hansford, 1999).

CA in the educational contexts has been widely associated with gender and personalities. Adult female learners have been shown to be more anxious than male learners in general but their CA seems to be situational (e.g., Loureiro et al., 2020; see Section 1.1). Past studies seem to suggest that personality traits have a greater influence on CA than gender. Common personality traits associated with CA include introversion/extroversion, neuroticism, psychoticism, and shyness. CA has been found to be to be positively correlated with personalities that reflect negative emotionality such as neuroticism and psychoticism but negatively correlated with personalities that reflect sociability and positive emotionality such as extraversion (Dwyer & Cruz, 1998; Jung & McCroskey, 2004; Neulip et al., 2003; Opt and Loffredo, 2000). Past studies have also shown that personality traits did not influence CA in isolation but the influence of personality traits is associated with the specific communicative contexts. While shy individuals have also been associated with having high CA (Babapoor et al., 2018; Malik et al., 2021), Hammick and Lee (2014) specifically found that shy individuals experienced less CA in virtual worlds than in face to face contexts.

Just like past studies on gender and CA, the association of personality traits and CA have been predominantly based on tertiary learners (e.g., Dwyer & Cruz, 1998; Jung & McCroskey, 2004; Neulip et al., 2003). However, unlike gender, it has been established that individuals' personality may not be stable across the lifespan. In relation to the big five personality model that consists of extraversion, openness, agreeableness, conscientiousness, and neuroticism, it has been established that the dominance of these personality traits differs across different age groups as a result of the normative developmental factors (Costa et al., 2019; DeYoung, 2006). For instance, neuroticism and extraversion decreases, while agreeableness and conscientiousness increases over the lifespan (Costa et al., 2019). Although it has been argued that the consistency of an individual's personality is more common as drastic changes in personality traits rarely occur (Roberts & Caspi, 2003), it is also important to consider the changes in personality that has been found to occur, regardless of the extent in which an individual's personality trait changes along with age. Specific to the big five personality model, extraversion and neuroticism are considered fundamental traits of learners with CA (Beatty et al., 1998). However, I view that it is important to understand the association of young learners' personality with CA, beyond extraversion and neuroticism traits as the literature that has established these personality correlates are predominantly based on adult learners.

While individual traits are important, the situation or one's environment i.e., contextual experiences, have been shown to play a role in learners' CA. The socioeconomic status plays a role in the experiences of CA as learners from less privileged background have been associated with higher levels of CA (Coetzee et al., 2014). It was suggested by Coetzee et al. (2014) that the lack of resources and finances of educational institutions limits learners' opportunities to develop language ability and subsequently the confidence in communication. In addition to the importance of socioeconomic status, the racial composition may also play a

role in learners' CA in a multi-ethnic context. Learners representing a majority population experience lower CA as the racial composition of the context influences how comfortable learners feel (LaRochelle & Karpinski, 2016). However, the influences of racial compositions may be subjective to each context. As LaRochelle and Karpinski (2016) examined the racial differences in CA among White, African-American and Asian undergraduate learners of a university in which the majority of the learners were African-Americans, it is unclear whether similar findings will be observed in a multi-ethnic country like Malaysia where majority of the learners are multilingual or bilingual. As the influence of ethnicity is specific to culture of each context, these differences need to be further examined locally.

In general, while there have been very limited CA studies on young learners, several studies conducted on adult learners have shown that the communicative context plays a role in the CA experiences. Virtual communication has been found to be a more comfortable environment for communication or discussion, whereby learners express themselves better in addition to feeling less CA (Hammick & Lee, 2014). In addition, it has also been demonstrated that the overall levels of CA have been high or above average in specific communication contexts, such as, group discussions, meetings, conversations, public speaking (Burk, 2001; Jalleh et al., 2021; Loureiro et al., 2020). More specifically, it has been found that adult learners were more anxious in more spontaneous communicative contexts, i.e., group discussions and conversation contexts (Jalleh et al., 2021) as well as public speaking contexts (Burk, 2001; Byrne et al., 2012). However, specific to classroom communicative context, past studies on adult learners have mainly focused on public speaking context and oral presentations (e.g., Gallego et al. 2022; Gregersen, 2005; Kalra & Siribud, 2020), and had not considered the commonly occurring and important learning situation, teacher-learner interactions.

In addition to the CA experienced in various educational contexts, it is also noteworthy that limited past evidence has suggested that learners aged 9-12 years old begin to experience a more prominent increase in CA (Keaten et al., 1997; McCroskey, 1981; Watson, 1989). It has been found that the levels of CA increases with age from kindergarten through secondary school (Keaten et al., 1997; McCroskey et al., 1981). In Keaten et al.'s (1997) study that was conducted in Japan, there was an upward trend in the level of CA experienced by learners from kindergarten to high school. Similarly, an earlier comparative study on Swedish and American learners by Watson et al. (1989) also found that CA was significantly and positively associated with age. Watson et al. (1989) observed that in both contexts, learners between five to eight years old had significantly lower CA than learners between ages nine to eleven. McCroskey et al. (1981) argued that the exposure to a school environment itself is a potential factor that contributes to the increase in CA. Similarly, it was also suggested by Keaten et al. (1997) that the classroom environment plays an important role in the increase of CA levels across ages. However these studies have not examined the plausible contributing factors established among tertiary learners, such as gender, personality and ethnicity, but only suggested the possibilities based on their findings on CA constructs. If CA is a phenomenon that involves interactions between different traits and the environment, then it is not surprising that one's intensity of CA changes with age. Thus, focusing on young learners may help prevent the increase in CA levels at a younger age through appropriate interventions. Although these studies were not recently conducted, it is important to not disregard the past findings that have found CA to be positively associated with age (Keaten et al., 1997; McCroskey et al., 1981).

1.1.3 Communication Apprehension Measurement

Measuring CA has been a key issue in research in the past (McCroskey, 1997) and several instruments have been developed to identify and measure CA e.g., Perceptions of Speaking Ability (Ayres, 1986), Cognitive Public Speaking Orientation (Motley & Molloy, 1994), Cognitively Experienced Speech Anxiety (Beatty et al., 1976), Personal Report of Public Speaking Anxiety (McCroskey, 1970) Communication Anxiety Inventory (Booth-Butterfield & Gould, 1986) and Personal Report of Communication Apprehension (McCroskey, 1982). However, these instruments were developed specifically for adult learners, while a more age appropriate instrument for young learners is the Personal Report of Communication Fear (PRCF; McCroskey et al., 1981).

The PRCF instrument has been used by past studies to examine the CA among young learners in primary schools (e.g., Bolls & Tan, 1996; Carter & Hansford, 1999; Keaten et al., 1997; Watson et al., 1989). Specific to the communicative contexts, the PRCF consists of items in relation to young learners' fears towards general, stranger, and classroom communications which are highly relevant to young learners (Keaten et al., 1997). Other existing instruments such as McCroskey's Personal Report of Communication Apprehension (PRCA–24; 1982) is an extensively administered test for individuals to indicate their apprehension towards communicating in different contexts (e.g., Burk, 2001; Coetzee et al., 2014; Honeycutt et al., 2009; Loureiro et al., 2020). However, the PRCA measurement consists of four factors as each factor focuses on apprehension in relation to a specific context, i.e., one-on-one interpersonal (dyadic) communication, public speaking, group communication, and meeting communication. Thus, out of all the available and reliable measures of CA, the PRCF is the most suited measure of this study due to the appropriateness for the administration on young learners. As such, for the purpose of this study, the PRCF instrument is adopted to examine the CA of young Malaysian primary school learners.

Further details of this instrument is presented in the first study of this thesis (see Section 2.2.3).

Despite the wide area of CA investigations, the methodology used in these studies have heavily relied on the use of questionnaires such as the PRCA that was established by McCroskey (1982). Only a handful of studies have incorporated qualitative methods, i.e. interviews, to understand the levels of CA experienced by learners (e.g. Byrne et.al, 2012; Dwyer, 2000; Francis & Miller, 2008). Another commonality among these studies is that participants of these studies are mostly tertiary level learners and only a few studies have investigated CA among young learners (e.g., Carabeo & Juanillas, 2022; Keaten et al., 1997; McCroskey et al., 1981). Thus, to address the gap in literature on CA phenomenon among young learners, this research explores young learners' CA through both quantitative and qualitative methods.

In addition to a lack of empirical evidence on young learners' CA, there is also a lack of understanding of the CA phenomenon in the real-life setting. Past studies have mainly focused on experiment based observations (e.g., Giannakakis et al., 2017; Harrigan & O'Connell, 1996; Hirokawa et al., 2004; Lindberg et al., 2021) that involved learners being observed in lab settings whereby there weren't other learners apart from their interlocutors present in the room. However, observations in lab settings may restrict the generalizability of the observed behaviours and may not entirely be representative of the actual behaviours in a naturally occurring situation (Heyman et al., 2014). In line with that, it has been established that there are differences in relation to eye movement behaviours in experimental setup and a real-life setting, as social hypervigilance gaze behaviour was not observed in the real life setting, while it was present in the lab setting (Konovalova et al., 2021). Although there have been studies on learners' anxieties that were conducted in real-life or naturalistic settings, they mainly focused on public speaking and oral presentations, rather than authentic

interactions in the classroom (e.g., Gallego et al., 2022; Gregersen, 2005; Kalra & Siribud, 2020), therefore highlights the need for behaviours to be observed during authentic interactions in real-life classroom settings.

1.1.4 Communication Apprehension and Teacher Perceptions

Many studies in this field turn to the experiences of teachers for informative insights on learners' anxieties (e.g., Chuang, 2019; Inada, 2021; Tran, Baldauf & Moni, 2013). Teachers' views are important as teachers are engaged with learners on a daily basis (Mak, 2011) and learners spend considerably more time interacting in school than at home (Tran and Moni, 2015). It has been established that teachers' quantitative ratings of learners' CA, such as CA levels, appear accurate and reliable, especially in identifying highly anxious and non-anxious learners (Gregersen, 2007). In line with this notion, I view that teachers are in a position to observe learners in the classroom context and can therefore provide valuable perspectives on learners' CA. In addition, teachers also play an important role in addressing CA of learners (Carter & Hansford, 1999; Knight et al., 2016; Meluch et al., 2019). Thus, it is meaningful to obtain teachers' perspectives on young learners' CA, as it will provide insight into how English language teachers view CA among young learners, and their current understanding of CA phenomenon.

Teachers' views of learners' anxieties are particularly important as it influences their pedagogical decisions in the classroom. Tran, Baldauf & Moni (2013) found that when teachers viewed learners' anxiety levels as less severe than they were, it influenced their decision that anxiety was not important to be addressed in the classroom. In addition, in a study by Gkonou & Miller (2019) it was found that teachers used their understanding of learners' anxious behaviours as a tool to identify learners' anxieties in specific classroom

tasks, and subsequently modified their tasks to create a less stressful learning experience for their anxious learners.

While the influence of teachers' perceptions of learners' general anxieties on their classroom practices has been established, there is still a lack of understanding of teachers' perceptions of CA. Teachers' perceptions of CA have been mainly focused on causes, implications and mitigation strategies, which will be discussed in chapter 5 (see Section 5.1.1). However, their observations on learners' traits and behaviours in relation to CA in the classroom context have not been the focus. Therefore, I view that it is important to obtain teachers' perspectives on young learners' CA in relevance to not just the causes, implications, and mitigation strategies of CA, but also the traits and behaviours of learners. This would meaningfully contribute to our understanding of the CA phenomenon among young learners in the classroom context.

1.2 Context of the Research: Malaysian Primary School Classrooms

The target participants of this research were Malaysian primary school learners. Under the national education system in Malaysia, primary education is compulsory for all Malaysians and is academic based (Ministry of Education Malaysia, 2013). There are mainly 7 types of primary schools in Malaysia, namely national school, national-type Chinese school, national-type Tamil school, special education school, religious school, private school and other programme schools. Malaysian primary schools also consist of single gender based schools and co-educational schools. The primary schools in Malaysia are for children between the ages of 6+ to 11+ years old.

It is common to find Malaysian school classrooms filled with learners from different ethnic, cultural, and religious background as Malaysia is a multi-racial country. In a country as diversified as Malaysia, the majority of the learners are multilingual or at least bilingual.

As specified in the Malaysian Education Blueprint 2013-2025 (Ministry of Education Malaysia, 2013), bilingual proficiency is one of the National Education Philosophy's vision in which the aspiration is that "every student will be proficient in Bahasa Malaysia as the national language and in English language as a second language and the international language of communication" (Ministry of Education Malaysia, 2013, p. 2.7). In addition to the importance given to these two languages, in vernacular primary schools (i.e., national-type Chinese school and national-type Tamil school), ethnic languages such as Mandarin and Tamil are respectively permitted as mediums of instruction for all other subjects (e.g., History and Moral). Specific to national school, national-type Chinese school, and national-type Tamil school, although the medium of instruction may be different, the curriculum and aspirations remain the same across these types of schools. In this research, Malaysian primary school learners of these three types of schools (i.e., national school, national-type Chinese school and national-type Tamil school) were identified as the sample participants.

Regardless of the types of schools, English language has been institutionalised as the official second language based on the Education Ordinance since 1957. In regard to the position of English language in the Malaysian context, the Ministry of Education Malaysia implemented the Standards-Based English Language Curriculum (SBELC) in 2013 and one of the objectives of the English Language curriculum for primary schools in Malaysia is that "by the end of Year 6, primary learners should be able to competently demonstrate ability to communicate with peers and adults confidently and appropriately in formal and informal situations" (p.4). It is notable that communication in English language is given emphasis by the Malaysian education system and effective communication in the classroom is emphasised in teaching and learning of English as a second language (Thuruvan & Yunus, 2017). However, an existing area of problem among some Malaysian primary school learners is their communication skills (Samat et al, 2019) and it has been found that they are afraid to communicate in the classroom due to

fear, shyness, and anxiety (Nijat et al., 2019). This recurrent problem among Malaysian learners has drawn me to explore the CA phenomenon further as it is evident that in addition to the significance of communication skills, understanding the issues surrounding learners' communication is an area that needs attention.

Communication is an important skill to be mastered by learners at an early age, however, the command of the English language among Malaysian learners differ widely (Pillai & Ong, 2018). As argued by Jalaluddin et al. (2008) and Mohtar et al. (2015), one of the main problems among Malaysian learners is the inability to be a proficient English language speaker upon completion of their secondary education. Mohtar et al. (2015) asserted that this is predominantly due to the lack of foundation in the language from early on at primary school levels. To help their learners establish a strong language foundation in their early years, teachers need to first address the possible obstacles in the language learning process which includes learners' anxieties. It has been widely established that learners' anxieties impedes the language learning process (Horwitz, 2001, 2010; MacIntyre, 1995; Yahaya et al., 2021; Zheng, 2008). More specifically, anxieties in relation to communication has been found to be a highly challenging obstacle in the language learning process (Carabeo & Juanillas, 2022; Woodrow, 2006) and the most common type of anxiety experienced by learners in the language learning classrooms (Ohata, 2005). Specific to CA, without explicit knowledge on learners' CA phenomenon, teachers may not be able to accurately identify learners with CA (Gregersen, 2007). Therefore, it is important to establish the traits among young learners in Malaysia, how CA behaviours are shown in young learners, and how much Malaysian English language teachers know about CA. Obtaining this information builds the foundation to develop research instruments to further understand teachers' ability to identify CA and innovate mitigation strategies specific for young learners' CA.

1.3 Summary of Research Gaps

Overall, the phenomenon of CA has been studied since the last four to five decades (McCroskey, 2009), however there are existing gaps in the literature on CA that restricts the attainment of a more comprehensive understanding of CA specific to young learners. Firstly, most of the studies have predominantly focused on the CA phenomenon among adult, learners (e.g., Blume et al., 2013; Burk, 2001; Byrne et.al., 2012; Coetzee et al., 2014; Dwyer, 2000; Francis & Miller, 2008; Honeycutt et al., 2009; LaRochelle & Karpinski, 2016; Loureiro et al., 2020; Opt & Loffredo, 2000; Shi et al., 2015), only a few studies have investigated CA among learners in primary schools (e.g., Carabeo & Juanillas, 2022; Keaten et al., 1997, McCroskey et al., 1981; Watson et al., 1989). There is a lack of understanding on CA phenomenon among young learners. As anxieties experienced by younger individuals may be different than older individuals, it is not widely understood whether the CA phenomenon that have been heavily examined on adult learners, are applicable to young learners or children. Therefore, this is addressed in the present research in order to obtain a better understanding on CA of young learners.

Secondly, the understanding of factors that contribute to CA remain inconclusive. Although past studies aimed at exploring a single trait or environmental factors, the trait of learners and their environment may interact and contribute to the manifestation of learners' CA. In addition, individual traits such as gender, personality and ethnicity have also been studied in isolation, and the interaction among these traits has not been collectively examined in relation to learners' CA.

Thirdly, there is a lack of understanding of CA in regards to the presence of specific behaviours associated to language learners' CA. Behavioural manifestations of anxieties are known to differ across different age groups, as such it is unclear whether the behaviours established by past studies based on adult learners are applicable to young learners.

Understanding CA behaviours specific to young learners will enable teachers to observe and identify the young learners with high CA and subsequently provide them with the support to reduce their CA.

Fourthly, the existing literature lacks understanding on CA experiences in various multi-ethnic contexts. As there may be variations in CA based on ethnicity as a result of the different practices and norms driven by their social ethnic backgrounds, CA needs to be examined among learners of various ethnic backgrounds. Exploring CA in a multi-ethnic context like Malaysia, particularly how young learners' traits interact with their environment and types of CA in the learning of English, would deepen the understanding on the variations in the CA experiences among ESL learners.

Fifthly, there is also a lack of understanding on how learners experience CA during interactions with teachers in real-life classroom context. Past studies have predominantly focused on public speaking and oral presentations. In addition, the past studies that have explored learners' behaviours in relation to CA have mainly been conducted in lab settings. Thus, examining CA specific to teacher-learner interactions in the real-life classroom would be able to further strengthen our understanding of CA among language learners.

1.4 Research Aims and Questions

This research intends to:

1) identify the association of individual trait factors on the communication apprehension of Malaysian primary school learners.
2) explore the behaviours of high communication apprehension learners in an ESL classroom from qualitative and objective perspectives.
3) explore the behaviours of low communication apprehension learners in an ESL classroom from qualitative and objective perspectives.

4) explore English language teachers' perceptions of Malaysian primary school learners' communication apprehension

In order to rationalise the aforementioned aims, this research sought to answer the following research questions (RQ);

RQ 1: What are the associations of individual trait factors (i.e., gender, ethnicity, personality traits) and CA of Malaysian primary school learners?

RQ 1a: What is the association between gender and CA levels of Malaysian primary school learners?

RQ 1b: What is the association between ethnicity (i.e., Malay, Chinese, Indian, and mixed-ethnicity) and CA levels of Malaysian primary school learners?

RQ 1c: What is the interaction between gender and CA levels of Malaysian primary school learners, with the five different personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism?

RQ1d: What is the interaction between ethnicity and CA levels of Malaysian primary school learners on five different personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism?

RQ 1e: Which individual traits (i.e., gender, ethnicity, personality traits) predict the communication apprehension scores (i.e., total CA, classroom communication fear, general communication fear, and stranger communication fear scores) of Malaysian primary school learners?

RQ 2: How do Malaysian primary school learners with high CA behave when answering teacher questions in English in the ESL classroom?

RQ 3: How do Malaysian primary school learners with low CA behave when answering teacher questions in English in the ESL classroom?

RQ 4: How do English language teachers' perceive Malaysian primary school learners' CA?

1.5 Significance of the Research

Through examination of the association of personality and behaviours with CA among young learners, this research aimed to make theoretical and practical contributions to the field of communication and education in several ways. First, the findings of this research will add to the existing theoretical knowledge of the behaviours and traits of language learners with CA and specifically of young learners in Malaysian classroom context. This will address the current shortage of research and understanding of CA among ESL and EFL learners in contexts similar to Malaysia and will subsequently extend the existing body of knowledge on CA among language learners.

This research will also provide contribution to the understanding of young learners' CA in terms of the interaction between young learners' traits as well as the environment and context in which young learners communicate. The early learning stage is particularly important in the development and mitigation of learners' CA. As such, the findings of this study will generate a more comprehensive understanding of the CA phenomenon among young learners which may be used as a guide by teachers and future studies to identify and understand CA among young learners as well as to understand the influence of traits and environment on CA.

From a methodological point of view, this research contributes a more meaningful qualitative and quantitative approach for looking into CA. Currently, there is a heavy reliance on questionnaire and self-perceived CA. In line with that, this research will strengthen understanding of the CA phenomenology through both qualitative and quantitative approaches. Qualitative approach is important in communication studies as "qualitative approaches to human communication may provide more insights and different insights than quantitative approaches" (Treadwell & Davis, 2019, p.259). Although the number of studies on CA continues to rise, there is still limited qualitative contributions.

1.6 Research Paradigm

To answer the research questions raised, the study adopts the pragmatism perspective that focuses on selecting designs and methods "based on 'what works' and answering the stated research questions" (Tashakkori & Teddlie, 2010, p.279). Pragmatism promotes the use of mixed methods as a pragmatic way to understand human behaviour. In line with the worldview, my research employed a range of research designs to examine and explore the CA phenomenon among young learners. The process of the research involved both quantitative and qualitative data collection methods.

In Study 1, a quantitative method was employed and surveys were administered to 614 ESL learners between ages eleven and twelve from various type of national schools in Malaysia i.e., national school, national-type Chinese school, national-type Tamil school. In order to examine the association of learner traits with CA, the survey was used to examine the demographic, personality, and CA data, of ESL learners.

In Study 2 and Study 3, both qualitative (i.e., observations, interview and eye tracking) and quantitative (i.e., survey) methods were used to explore learners' behaviours in relation to their CA. Ten ESL learners were selected from the survey participants of Study 1 to participate in the observations. To observe learners' behaviour, their interactions with the English language teacher in the classroom were video recorded and their eye movement behaviours were examined using eye tracking method. Additionally, semi structured interviews were conducted with the 10 observed ESL learners and their respective English language teachers. The teachers and learners were interviewed to triangulate the data on learners' CA, behaviours and personalities, and to obtain teachers' perceptions of young learners' CA.

Study 4 used an entirely qualitative approach to explore teacher perceptions of learners' CA. Part of the semi-structured interviews that were conducted with the six English

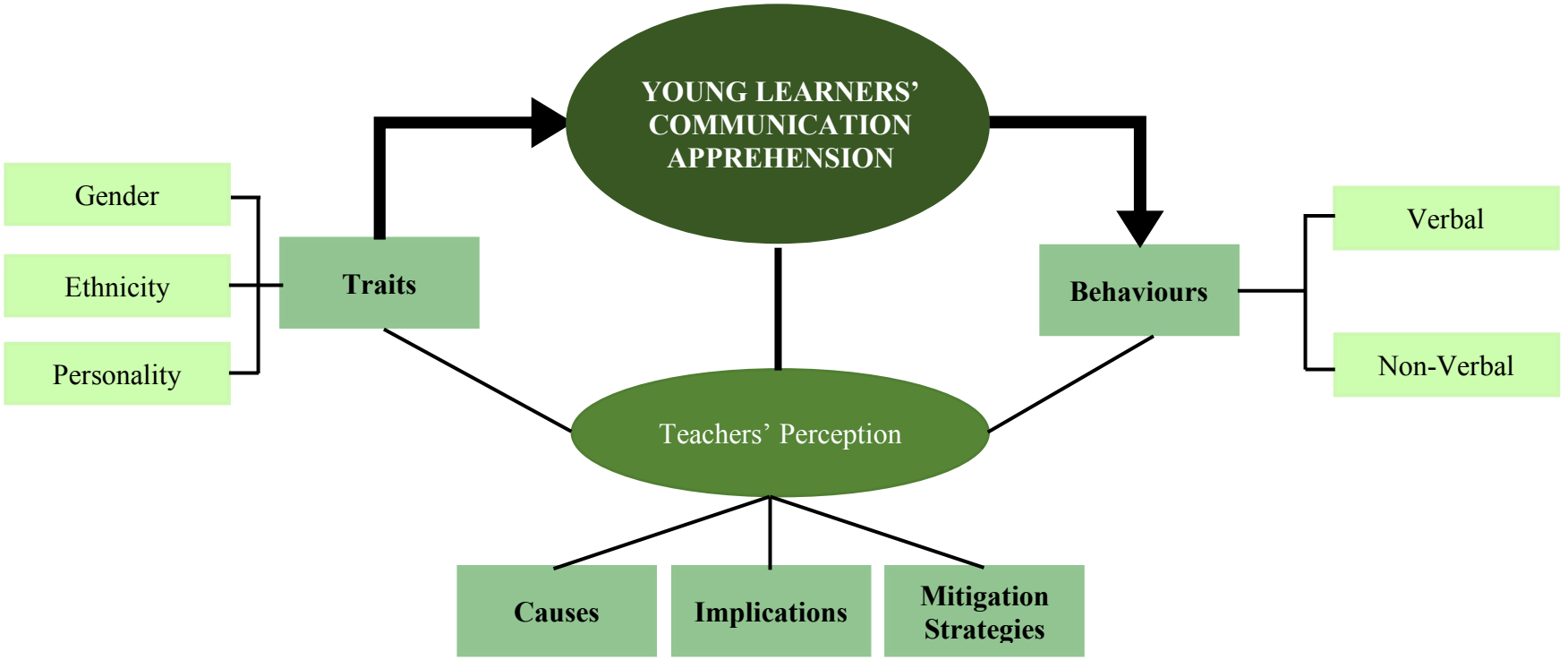
language teachers from Study 2 and Study 3 were used to analyse their perceptions of young learners' CA specific to the learner characteristics, CA causes, CA implications, CA mitigation strategies, and their classroom practices.

1.7 Conceptual Framework

In intending to obtain a holistic understanding of CA phenomenon among young learners, it is important to explore various elements that are associated with CA. The conceptual framework of this research consists of two main elements, i.e., learners' traits and behaviours in relation to CA. In addition to these two elements, it is also important to understand the possible causes, implications, and mitigation strategies of CA, to obtain a more comprehensive understanding of CA experienced by young learners. Figure 1.2 illustrates the conceptual framework of this research. With this conceptual framework, this research consists of four specific studies that examined and explored these constructs of young learners' CA.

Figure 1.2

Conceptual Framework



According to communibiology paradigm, it is important to understand the traits of learners as it highlights that CA is a result of an individuals' trait or the nature of an individual. Although the communibiology paradigm frames CA to specifically be a result of an individual's extraversion and neuroticism personality traits, based on the evidence in the literature, there are also other traits that have been informed to represent and have an influence on learners' CA. In addition to personality, the two other trait factors that have been identified as influential factors to CA are gender and ethnicity. Thus, Study 1 examines the association between the three aforementioned individual traits factors with CA which is presented in chapter two. In this research, gender and ethnicity were gathered through surveys conducted, while personality traits were informed by teachers and learners through surveys and interviews.

Another important element that has been identified to be representative of learners' CA is the behaviours. It has been informed by the current literature that there are behavioural manifestations of CA and these behaviours can be categorised as verbal and nonverbal behaviours. Therefore, upon examination of the individual trait factors associated with young learners' CA, the third and fourth chapters present Study 2 and Study 3, which respectively explores the behaviours of learners with high CA and low CA during interaction with teachers in the classroom, specific to these two broad categorisations. The behaviours are predominantly explored through observations in the classroom and further strengthened by teachers' observation of the specific learners' behaviours.

Apart from the two characteristics of learners (i.e., trait and behaviours) that have been identified for this research, there are three other areas i.e., causes, implications and mitigation strategies of CA, that have been identified to be important in obtaining a complete understanding of the CA phenomenon. There are specific causes of CA that have been reported to be relevant among learners, such as fear of peer, and negative evaluation, prior

communication experiences, as well as lack of language proficiency and content knowledge. As a result of these factors, learners may experience CA in the classroom context which may therefore have implications on learners. These implications are specific to learners' academic performance and achievements. More specifically, CA has been found to have negative impact on learners. Therefore, the impact of CA on learners highlights the need for effective mitigation strategies to be implemented by teachers. Specific to learners' CA, teachers play an important role as not only are they engaged with learners on a daily basis but they are also in a good position to provide valuable insights based on their extensive observations of their own learners. Thus, chapter five presents Study 4, which encapsulates teachers' points of view of not just the traits and behaviours of learners, but also the causes, implications, and mitigation strategies of CA.

1.8 Structure of the Thesis

This section explains the organisation of the thesis based on the six chapters, including four chapters on four individual studies, i.e., individual trait factors and CA (Study 1), behaviours of high CA learners (Study 2), behaviours of low CA learners (Study 3), and teachers' perceptions of CA (Study 4). This first chapter provided the background of the research as well as the research context, and the research gaps were identified. This chapter then outlined the research aims and objectives as well as the significance of this research. Following that, the philosophical perspective and research design were presented. Then, the chapter illustrated the conceptual framework of this thesis.

As this thesis comprises four individual studies, the studies are respectively framed and reported in chapters two, three four and five. The second chapter presents Study 1 which is an examination of the association between individual traits factors with CA. More specifically, Study 1 reports on the association of young learners' gender, ethnicity and

personality traits with their overall CA as well as CA subdimensions (i.e., classroom, general and stranger CA) . The third chapter presents Study 2 which explores the behaviours of learners with high CA during interaction with teachers in the classroom. This exploratory study reports on the verbal and nonverbal behaviours displayed by five young learners with high CA. Subsequently, the fourth chapter presents Study 3 which is an exploration of the behaviours of young learners' with low CA during interaction with teachers in the classroom. In addition to reporting the verbal and nonverbal behaviours displayed by five young learners with low CA, this chapter also discusses the similarities and differences of the behaviours displayed by the five low CA learners and the five high CA learners from Study 2. The final study, i.e., Study 4, is presented in chapter five. This final study explores teachers' perceptions of young learners' CA. It reports on the perceived causes of CA, characteristics of learners, implications of CA, CA mitigation strategies, as well as the teachers' reported classroom practices.

In each of these individual studies, the respective chapters contain the specific background, methodology, results, discussion, implications, limitations and conclusion. The rationale for structuring the thesis based on the individual studies was to provide a more focused review of literature as well as a detailed account and clarification of methodologies used to answer each research questions in accordance to the research aims. Table 1.1 provides an overview of the aim, background and method for each of the four individual studies in this thesis. By systematically reporting the four studies in this thesis, it allows this research to be reported in a more comprehensive and structured manner in relation to the various elements relevant to CA (i.e., learners' traits and behaviours, as well as the perceived causes, implications, and mitigation strategies of CA) that this research examined and explored.

Table 1.1

Overview of the Aim, Background and Method for each of the Individual Studies in This Thesis

STUDY 1 (Chapter Two)	STUDY 2 (Chapter Three)	STUDY 3 (Chapter Four)	STUDY 4 (Chapter Five)
Aim: *To identify the association of individual trait factors on the communication apprehension of Malaysian primary school learners*	**Aim**: *To explore the behaviours of high communication apprehension learners in an ESL classroom from a qualitative and objective perspectives*	**Aim**: *To explore the behaviours of high communication apprehension learners in an ESL classroom from a qualitative and objective perspectives*	**Aim**: *To explore English language teachers' perceptions of Malaysian primary school learners' communication apprehension*
Background - Framing the concepts of individual traits – Trait theory and social identity theory - Gender differences in CA - CA experiences and differences based on ethnicities - The influence of personality traits on CA	**Background** - Behavioural manifestations of high CA learners • verbal behaviours associated with high CA • non-verbal behaviours associated with high CA - Contextualisation of CA phenomenon in the classroom context - Teacher-learner interactions in the classroom context	**Background** - Behaviours of low CA learners • verbal behaviours associated with low CA • non-verbal behaviours associated with low CA	**Background** - Teachers perceptions of CA • Causes of CA • Implications of CA • Mitigation strategies of CA - Teachers' classroom practices and role
Method - Cross sectional research design (Quantitative approach) - Identification and justification of instruments used to obtain learners' self-reported CA and personality scores	**Method** - Collective case study research design - Five learners with high CA - Identification and justification of coding scheme to analyse behaviours	**Method** *(A replication of Study 2)* - Five learners with low CA	**Method** - Qualitative interview approach - Six English language teachers

- Identification and selection of appropriate statistical tests to examine the associations of individual trait factors and CA	- Identification and justification of coding scheme to analyse teacher questions and learner answers

Chapter six is the final chapter of this thesis and it summarises the key findings of each study as well as highlights the significance and original contribution of this thesis. It also presents the overall implications, limitations, and suggestions, for future research that are drawn based on this research.

1.9 Conclusion

In summary, past studies on CA showed that there is a lack of understanding in young learners' CA as most studies have contributed knowledge of CA phenomenon based on adult learners. In line with the need to have a better understanding of young learners' CA, this research examines and explores young learners CA in terms of learners' trait and behaviours as well as teachers' perceptions of learners' CA. The thesis is structured based on four individual studies. The next chapter is on Study 1 and it will examine the associations of individual traits with young learners' CA.

CHAPTER TWO: STUDY 1 - INDIVIDUAL TRAIT FACTORS AND COMMUNICATION APPREHENSION

Trait factors such as gender, ethnicity, and personality, have been established by past studies to be associated with learners' CA. Although these trait factors among adult learners have been found to interact with each other for the influence on CA, however, there is a lack of understanding on the interaction between these traits and how they associate to young learners' CA. In this chapter, I present Study 1, which aimed to identify the association of individual trait factors on the CA of Malaysian primary school learners. The trait factors that have been identified and selected for this study are gender, ethnicity, and personality traits. A cross-sectional quantitative research design was used and a total of 614 Malaysian primary school learners participated in this study.

2.1 Background

CA may be experienced in various communicative contexts and it is important to understand that the communicative contexts relevant to young learners may not be entirely parallel or be reflexive of the communicative contexts that have been identified by the body of literature on adult learners' CA. As highlighted in the introduction chapter (see Section 1.1.3), the four main communicative contexts that individuals may experience fear of communication are one-on-one interpersonal (dyadic) communication, public speaking, group communication, and meeting communication (McCroskey, 1982), and these communicative contexts have been widely examined by past studies on adult learners (e.g., Burk, 2001; Coetzee et al., 2014; Honeycutt et al., 2009; Loureiro et al., 2020). However, it may be argued that young learners may not have exposure to these specific communicative contexts. McCroskey et al. (1981) identified that examining young learners' fear of

communication with teachers in the classroom, fear of communication with strangers, and fear of communication in general, are relevant and appropriate for learners across primary or elementary and secondary schools. Specifically, classroom communicative context has been identified to be one of the most important contexts in understanding CA among young learners (Bolls & Tan, 1996; Carabeo & Juanillas, 2022; Garrison & Garrison, 1979).

Regardless of the communicative contexts, it is important to understand that the development of CA among learners can be viewed as a gradual process. At an older age i.e., high school or secondary school, CA becomes a stable trait among learners, whereas young learners' CA can be significantly influenced by several factors such as school environment, communication patterns and parent characteristics (Daly & Friedrich, 1981). Daly & Friedrich (1981) argued that the influence of the individual factors also plays a role in the development of young learners' CA. For instance, the way in which young learners react to the influential factors are heavily dependent on young learners' characteristics. Specific to young learners, it is unclear whether learners' traits or characteristics would interact with each other and have an influence of their CA.

Trait has been defined by Carr and Kingsbury (1938) as a "conceptual attribute or definition of the reactive nature of an individual" (p.497). This definition is based upon the characteristics of an individual who society views as of sufficient importance to one's identify and name, as well as characteristics which are regarded as manifestations or expressions of an individual's constitutional nature. This definition still prevails in contemporary studies of traits (e.g., Hardy, 2014; Sandu et al., 2020) because it emphasises the predictive nature of traits in which traits are believed to be not directly observable, rather deduced from individuals' behaviours. Although McCroskey's (1983) theory of CA conceptualises CA in a continuum that defines one end of the continuum to be attributed to an individual's trait, however, it specifically focuses on personality type orientation and

doesn't offer a comprehensive understanding of how wider traits may have an influence on CA. Two theories, social identity theory, and trait theory, underpin the role of the trait factors in understanding an individual's nature.

Firstly, in social identity theory, an individual's identity is grouped based on social categories or social groups that they belong to (Hogg & Abrams, 1998). A social group is a set of individuals who have a common social identification or identify themselves as members of the same social category (Stets & Burke, 2000). Social identity theory is important in taking into account how individuals of similar social groups or backgrounds are influenced by their social traits, and the influence that it may have on their behaviours and the way in which their thought processes are framed (Korte, 2007). In line with the social identity theory, it can be derived that a society is made up of many social categories such as ethnicity, gender, religion, and social class. Specific to these specific social categories, this study examines the association of ethnicity and gender of learners with their CA.

Secondly, according to trait theory, individuals differ from one another based on the intensity and strength of basic trait dimensions (Worthy et al., 2020). Trait theory is one of the approaches to examine and explore characteristics of an individual (i.e., personality). Trait theory provides a groundwork to understand in the influence of individual traits that are specific to personality factors, and the influence it has on human behaviour (Novikova, 2013). The trait approach to understanding human personality has led to the development of the big five model, i.e., extraversion, openness, agreeableness, conscientiousness and neuroticism (Fleeson & Jayawickreme, 2014). In line with this, in this present study, the personality traits in terms of the big five model are examined. In depth review of each individual traits in relation to CA are discussed in the following sub sections.

2.1.1 Gender Differences in Communication Apprehension

A considerable amount of studies have explored CA and gender associations among adult learners. It has been found that female learners have higher overall CA and also in specific communicative contexts such as in meetings, public speaking (Lang et al., 1998; Loureiro et al., 2020; Rafek et al., 2014) as well as in classroom (Jaasma, 1997). A similarity shared between these studies that have found higher levels of CA among female learners is that the gender differences were observed among university learners (e.g. Lang et al., 1998; Loureiro et al., 2020; Rafek et al., 2014).

Gender has been found to interact with communicative contexts and have an influence on learners' CA. For instance, female learners have been found to be more anxious and less participatory for both oral and written forms of communication in comparison to male learners (Loureiro et al., 2020), and also female learners were found to be less willing to participate in communication activities (Lang et al., 1998). Specific individual traits of female learners have been indicated to be contributing factors that lead to their comparatively higher level of apprehension. (Bahrami & Yousefi, 2011; Rafek et al., 2014). Higher CA among female learners may be explained by individual factors such as confidence, security, and superiority (Rafek et al., 2014), as well as the presence of comparatively more metacognitive worrying thoughts (Bahrami & Yousefi, 2011).

Jaasma (1997) found that the female learners had greater fear of evaluation, lack of communication competence, and lack of communication confidence, which led to their belief that female learners' comparatively higher CA can be explained by their lower self-esteem. However, it may be argued that this old study may not be reflective of female learners in some contexts. More recent study by Kumar et al. (2015) found that there were no significant difference in the fear of negative evaluation among male and female adult learners in India. However, it is also important to note that there are interactions found between gender and the

influence of fear of negative evaluation on learners' social choices such as creating new friendships (Davila & Kornienko, 2022). For instance, Davila & Kornienko (2022) found that female learners with lower fear of negative evaluation were more likely to maintain and create new friendships as compared to male learners. This is indicative that specific attributes such as fear of negative evaluation may play a significant role in learners, while gender may play a mediating role in the influence of social engagements. Thus, it may be argued that for learners' CA, gender may interact with other factors to have an influence on learners' CA phenomenon.

Although gender differences in the CA levels experienced among tertiary learners are evident in literature, similar findings of gender differences were not observed among young learners. In the study conducted by Keaten et al. (1997) on Japanese school learners, there were no significant gender differences found in the level of CA experienced by the learners across all schooling grades, which included learners from kindergarten up to high school. Interestingly, Donovan and MacIntyre (2004) also found that there was no significant difference in the CA levels between young male and female learners, i.e., junior high and high school learners, but they observed significant difference between genders in tertiary level whereby female learners had significantly higher CA than the male learners. It is possible that the gender influence of adult learners are greater, as young learners' CA are influenced by external factors such as the environment rather than their innate trait (Daly & Friedrich, 1981). However, while there is a considerable amount of literature on gender differences in the CA levels, very little is known about the gender differences among young learners' CA. It is unclear whether the dominant view of the literature that demonstrated the association of female learners with high CA (e.g., Jaasma, 1997; Loureiro et al., 2020; Rafek et al., 2014) would be replicable with young learners. Due to discrepancies in literature and

the lack of evidence to strongly suggest how gender is associated with CA of young learners, this study examined the association of gender and young learners' CA.

2.1.2 Ethnicity and Communication Apprehension

Ethnicity is multidimensional as various factors such as race, origin or ancestry, identity, language, and religion, contributes to the representation of ethnic groups in society (Nagaraj et al., 2015). The conceptualisation by Yinger (1986) combined complex and important constructs to form a holistic meaning of ethnicity:

> Thus ethnicity has come to refer to anything from a sub-societal group that clearly shares a common descent and cultural background (e.g. the Oneida Indians or, on a slightly higher level of generality, the Iroquois, the Turkomans in Iran, or Albanians in Yugoslavia), to persons who share a former citizenship although diverse culturally (Indonesians in the Netherlands), to pan-cultural groups of persons of widely different cultural and societal backgrounds who, however, can be identified as 'similar' on the basis of language, race, or religion, mixed with broadly similar statuses (Hispanics in the United States). (p. 23)

Based on Yinger's (1986) conceptualisation of ethnicity, it is notable that ethnic compositions within societies are uniquely formed and comparisons of ethnic groups in literature need to carefully consider the contextualisation of ethnic groups. As this study only focuses on one nationality i.e., Malaysians, the level of abstraction is not an issue in the grouping of learners based on their ethnic identities. Concurring with recent social science studies' adoption of Yinger's conceptualisation in defining the term "ethnicity" (e.g., Kim 2006, Nagaraj et al., 2015), this study also applies Yinger's perspective of "ethnicity" to embody a broad and inclusive concept that represents groups of individuals with similar cultural and racial identity.

Although CA is a phenomenon experienced by everyone to various extents (Beatty et al., 1998), there have been significant differences observed among learners of different ethnic background. These differences were observed in studies that have compared CA of learners from in different countries such as Japan, USA, Sweden, Taiwan and South Africa (e.g. Hsu, 2004; Keaten et al., 1997; LaRochelle & Karpinski, 2016; Neuliep et al., 2003). Based on literature, a trend can be seen that Asians have been found to have higher CA than Americans (Hsu, 2004; Keaten et al., 1997; Neuliep et al., 2003). However, the higher level of CA experienced by Asians seemed to be influenced by their surrounding cultural practices and norms (Neuliep et al., 2003).

The distinctive difference of CA experienced by Asians, compared to individuals of different cultural backgrounds (e.g. Americans) may be a result of the cultural influence when responding to the CA items/measures which involves self-evaluation or self-reflection that may be subjective in regard to individual modesty (Hsu, 2004). Self-conceptions and self-reflections may be driven by culture (Kashima et al., 2004) as culture influences the way in which one feels and thinks about themselves and various aspects of their lives (Suh, 2000). More specifically, across the Asian and Western cultural contexts, evidence suggest that there are differences in an individual's self-perceived traits (Choi & Choi, 2002; Su et al., 2013; Suh, 2000) as well as their self-construal and emotions (Nezlek et al., 2008). Thus, it may be inferred from the body of literature that individual experiences and self-conception of anxiety (i.e., CA) may differ across cultures and there are cultural subjectivity involved in self-evaluation or self-reflection. As such, ethnic context in this study is given importance based on the possible cultural influences.

In line with the contextualisation of ethnic groups, ethnicity interacts with the communication context for the influence on CA. In a study conducted by Coetzee et al. (2014), CA levels of the different ethnic groups (i.e., Indian, White, and African) in the South

African context were not significantly different. It was noted in their study that the participants were from various cultural backgrounds but they suggested that ethnic profiles may be too simplistic to been used as a general proxy for cultural influence. Coetzee et al. (2014) instead emphasised that environment may play a more meaningful role. For instance, although the Indians in their South African cultural linkage to India, but they have been living and are exposed to the South African culture, therefore, their ethnicity profile needs to be contextualised. This was supported by Phinney et al. (2001), as it was highlighted that the degree of ethnic and cultural influences may differ based on the varying degrees of cultural retention and adaptation. Thus, it may be argued ethnic groupings may not be made entirely based on their descent and cultural background, but instead grouped based on the same exposure to the context (i.e., Malaysian-Indian, Malaysian-Chinese). As emphasised by Byrne et al. (2012), it is important to examine CA phenomenon in various cultural contexts. This outlined the importance of examining the ethnic influence on CA in the Malaysian context, as Malaysia is made up of different cultures and ethnicities, therefore it is unclear whether the ethnic groups in Malaysia would have an influence on young learners' CA.

Specific to the Malaysian context, learners may distinctively differ based on their ethnic background, but they live in a context that may have multicultural influence in their everyday life. As conceptualised by Yinger (1986), ethnicities are uniquely represented within each society and there are wide variations in the grouping of ethnicities. In Malaysia there are three major ethnicities, i.e., Malay, Chinese, and Indian. It is estimated that the Malaysian population as of 2021 is 32.7 million with the 'Bumiputera' (the name of the indigenous population, with Malay being the largest in this category), Chinese and Indians making up 69.8 %, 22.6% and 6.8% of the population respectively (Department of Statistics Malaysia, 2021). As Malaysia is made up of different cultures and ethnicities, there is a diversity in the languages spoken at home, exposure to other languages outside of home,

which include Malay language, English language, as well as a number of Chinese dialects, Indian languages, and other minority languages (Rajadurai, 2004). Malaysian learners usually speak their mother tongues at home, but those with parents of higher social economic statuses may speak English (Pillai & Ong, 2018). Specific to language spoken in schools, although the English language is a compulsory language in the formal education at primary and secondary school levels, national school learners use the national language (i.e., Malay language) as the main medium of instruction, while vernacular school learners use their respective ethnic languages (Azman, 2009).

2.1.3 Personality Traits

> *Personality is the dynamic organization within the individual of those psychophysical systems that determine the characteristic, behaviour and thought.*
>
> (Allport, 1961, p.28)

CA has been linked extensively with personality traits. Although various personality models have been used to study the association of personality traits with CA such as Eysenck's big three temperaments (e.g., Jung & McCroskey, 2004, Neuliep et al., 2003) and 16 Personality factors (e.g., Butler, 1986; McCroskey et al., 1976), the big five model of personality has been extensively discussed and have been recommended by many researchers to be a very reliable model (Goldberg, 1990; Busato et al., 1998; McCrae & Costa Jr, 1999). While the big five model has been widely used in social science studies in the past (e.g., Filipiak & Lubianka, 2021; Jin-Young, 2015; MacIntyre & McKay, 2019; McIlroy et al., 2015), it has also been regarded as a comprehensive measure of personality as the five factors account for most of the personality based variations in human behaviours (Goldberg, 1990; Paunonen, 2003)

2.1.3.1 Big Five Personality Model. This big five personality model contains extraversion, openness, agreeableness, conscientiousness, and neuroticism (Goldberg, 1990). The development of the big five personality model was driven by the intention to have a comprehensive model to represent human traits (McCrae & Costa Jr., 1999). However, there have been variations in the factors within each personality dimension, which is due to the broad and inclusive nature of the big five model (John & Srivastava, 1999). The big five personality model is broad and inclusive as it adopts the basic tenets of trait theory in which "individuals can be characterized in terms of relatively enduring patterns of thoughts, feeling, and actions" (McCrae & Costa Jr., 1999, p.140). Nonetheless, John et al. (2008) reviewed the constructs of the model and provided short definitions for the each of five personality dimensions to represent each trait in a succinct manner. Table 2.1 contains the short definitions for the each of five personality dimensions as summarised by John et al. (2008) based on their review of literature. Based on their simplified definitions, (i) extraversion is an individual's energetic approach, (ii) openness is related to an individuals' breadth, depth, originality, and complexity of an individual's mental and experiential life, (iii) agreeableness is an individuals' prosocial and communal orientation towards others, (iv) conscientiousness is an individual's socially prescribed impulse control, and (v) neuroticism reflects an individual's emotional stability and even-temperedness with negative emotionality.

Table 2.1

Definitions of Each Big Five Dimension (John et al., 2008, p.138)

Big Five Dimensions	Short Definitions
Extraversion	Energetic approach toward the social and material world and includes traits such as sociability, activity, assertiveness, and positive emotionality.

Openness	Describes the breadth, depth, originality, and complexity of an individual's mental and experiential life
Agreeableness	Contrasts a prosocial and communal orientation towards others with antagonism and includes traits such as altruism, tender-mindedness, trust, and modesty
Conscientiousness	Describes socially prescribed impulse control that facilitates task- and goal-directed behaviour, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks
Neuroticism	Contrasts emotional stability and even-temperedness with negative emotionality, such as feeling anxious, nervous, sad, and tense

The literature has suggested that personality traits are not constant across age, instead it may change along with age (Roberts & Mroczek, 2008; Wortman et al., 2012). In line with the change of personality traits in humans, one of the main highlights of this model is that the five personality dimensions have been found to be enduring dispositions that reflect individuals' pattern of behavioural changes across lifespan (Costa & McCrae, 1992). Relevant to the target participants of this study, the big five personality model has also been successfully used on young learners ages 4-12 (e.g., Asendorpf & Aken, 2003; Lamb et al., 2002; Mervielde et al., 1995) and it has been found that among young learners, there is a tendency for them to become less extraverted and more agreeable and conscientious as they grow older (Lamb et al., 2002). In addition to the changes in personality traits in accordance to age, it has also been established that the correlates of young learners' big five personality with social inhibition, aggressiveness, and outcomes of school achievements are stable even with their age development (Asendorpf & Aken, 2003), thus proving that the correlations with personality traits are consistent. As this model has been found to be reflective of young learners' personality tendencies, I found that this is the most suitable model for the purpose of this study on understanding the association of young learners' personality and with CA.

In addition, the big five personality model is "an empirical generalization about the covariation of personality traits" (McCrae & Costa Jr, 1999, p.139) and has cross-cultural generalizability. The model has been extensively adapted in educational settings across various cultures such as United Arab Emirates, Belgium, China, England, Malaysia, Iran (e.g., Al-Samarrai & Alsalhi, 2023; Feyter et al., 2012; Liu et al., 2023; McIlroy et al., 2015; Teh et al., 2011; Zohoorian et al., 2022). Specific to each trait, neuroticism, openness, and conscientiousness have been particularly found to have robustness and they have a good cross-cultural replicability, while extraversion and agreeableness may be more sensitive to cultural contexts (Rolland, 2002). Nonetheless, these traits are a good representation of human traits as they can be characterised across cultures (Allik, 2005).

In regard to the instruments of the big five personality model, it has been widely measured through Costa and McCrae's (1992) NEO Personality Inventory-Revised (NEO-PI-R) (e.g., Hsu, 2004; Kristense et al., 2009), and the most commonly used instrument in recent studies is the John et al.'s (1991) Big Five Inventory (BFI) which consists of 44-items with 5 Likert-scale (e.g., Jin-Young, 2015; MacIntyre & McKay, 2019). However, a limitation with these instruments is that it was designed for adults and consists of various aspects of an adult's life in which young learners or children are not likely to have experienced. A more age appropriate instrument in the Pictorial Personality Traits Questionnaire for Children (PPTQ-C) by Mackiewicz & Cieciuch (2016). The PPTQ-C was developed by taking into consideration the level of children's cognitive development, in which it consists of simple and easier statements with fewer items and lower language complexity, thus suitable for children aged 7-13. This instrument is also a picture-based assessment in which is age appropriate for young learners as before the age of 12, individuals' thought processes are based on mental representations in relation to concrete events, experience or objects (Case et al., 2001; Demetriou, 2004). This instrument has also been used by past studies to examine

young learners' efforts in classroom, locus of control and gender differences associated with personality traits (Apascaritei et al., 2021; Filipiak & Lubianka, 2019, 2021). Although there have been various instruments developed, the scope for each trait across these instruments is aligned with John et al.'s (2008) simplified definitions of the big five personality traits.

2.1.3.2 Personality Traits and Communication Apprehension. Beatty et al. (1998) proposed that CA is a temperamental expression, and it is a blend of introversion and neuroticism personality, more specifically, it is a result of high neuroticism and low extraversion. Beatty et al. (1998) conceptualised that the specific traits (i.e. avoidance tendencies, behavioural disruption, distorted perceptions, and unpleasant affect) that are associated with high trait CA are the manifestations of high neuroticism and low extraversion. Findings of several other studies have further supported the notion that extraversion and neuroticism personality traits greatly associated with CA (e.g., Hsu, 2004; Jung & McCroskey, 2004; Neuliep et al., 2003). However, these past studies appear to have given unequal attention to the various personality traits when investigating CA correlates. In studies conducted by Hsu (2004) and Neuliep et al. (2003), they have particularly focused on the extraversion and neuroticism dimensions, while disregarding other personality traits.

Although literature has supported the view that CA is a blend of neuroticism and extraversion, earlier studies have also found inverse associations of CA with the following personality aspects; emotional maturity, adventurousness, self-control, dominance, confidence, surgency, tolerance for ambiguity, hard-driving, competitive, ambitious, hostile, impatient, and achievement oriented (Butler, 1986; McCroskey et al., 1976; Weaver et al., 1997). For instance, learners with high CA were less adventurous as they were found to be more timid and restrained as compared to learners with low CA who were found to be bold and spontaneous (Butler, 1986). In addition, positive associations between self-confidence,

inferiority complex, and shyness with CA have also been established (Hammick & Lee, 2014; Malik et al., 2021). For instance, learners with high CA were found to be shy as they preferred to be unnoticed and unobserved. It is evident that these various personality traits have been associated with CA, however, to have a more comprehensive representation of personality traits, big five model has been particularly highlighted to be a robust model that captures the various trait tendencies of individuals (McCrae & Costa Jr, 1999). Thus, I view that the big five personality model is a comprehensive model, and unsurprisingly a commonly used model in recent CA studies (e.g., Jin-Young, 2015; MacIntyre & MacKay, 2019).

Besides extraversion and neuroticism, past studies have also shown contradicting findings of how other personality traits influence CA. It has been found that openness personality traits to be negatively associated with CA as learners who were more adventurous and open to experiences had experienced lower levels of CA (Jin-Young, 2015; McCroskey et al. 1976; Sloan & Slane, 1990). However, in a more recent study, MacIntyre & McKay (2019) found that openness personality traits did not have a significant association with CA of learners. Similarly, past CA studies have also gathered contradicting findings on the associations of agreeableness and conscientiousness personality traits with CA. In Jin-Young's (2015) study, out of the five personality traits, agreeableness and conscientiousness were found to have no significant associations with CA of learners. In contrast, MacIntyre & McKay (2019) found that agreeableness trait positively predicted CA, while Weaver et al. (1997) concluded that hard-working trait, which is theoretically categorised under conscientiousness personality dimension, was negatively associated with CA. Based on these findings, it may be summarised that while CA is consistently related to neuroticism and extraversion personality traits, the evidence for openness, agreeableness, and conscientiousness, has been contradictory. These past studies were also fully focused on adult

learners in tertiary levels (e.g., Hammick & Lee, 2014; MacIntyre & McKay, 2019; Malik et al., 2021). To my knowledge, no study has examined the association between young learners' personality traits and CA. As personality constructs among adults and children have found to be different (Shiner & Caspi, 2003), it is questionable as the whether the traits that we see in adults are associated with CA in young learners.

2.1.4 The Current Study

The main aim of this current study is to identify the association of individual trait factors with the communication apprehension (CA) of Malaysian primary school learners. The individual trait factors examined in this study were: (i) gender, (ii) ethnicity, and (iii) personality traits. Based on the CA classification protocol of McCroskey et al. (1981) and Watson et al. (1988), learners were categorised into two groups based on their CA levels i.e., high CA and non-high CA.

The following RQs were formed and accordingly, hypotheses were drawn based on the respective research questions as well as based on previous studies' findings:

RQ 1a: What is the association between gender and CA levels of Malaysian primary school learners?

H_{1a}:There will be more female learners with high CA compared to male learners.

RQ 1b: What is the association between ethnicity (i.e., Malay, Chinese, Indian, and mixed-ethnicity) and CA levels of Malaysian primary school learners?

H_{1b}: There will be a difference in the occurrence of high CA vs non-high CA according ethnicity groups.

RQ 1c: What is the interaction between gender and CA levels of Malaysian primary school learners, with the five different personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism?

H_{1c}: The mean scores of the five personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism, will differ based on gender and CA levels.

RQ1d: What is the interaction between ethnicity and CA levels of Malaysian primary school learners on five different personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism?

H_{1d}: The mean scores of the five personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism, will differ based on ethnicity and CA levels.

RQ 1e: Which individual traits (i.e., gender, ethnicity, personality traits) predict the communication apprehension scores (i.e., total CA, classroom communication fear, general communication fear, and stranger communication fear scores) of Malaysian primary school learners?

H_{1e}: The three individual traits i.e., gender, ethnicity, and personality scores, would add significantly to the prediction of CA scores among Malaysian primary school learners. Male learners and two of the five personality traits, i.e., neuroticism, and agreeableness will negatively predict the CA scores. three of the personality traits, i.e., extraversion, openness, and conscientiousness, will positively predict the CA scores. Ethnicity groups will also predict the CA scores.

2.2 Method

2.2.1 Research Design

A quantitative survey research design was employed. Specifically, this study used a cross-sectional research design in order to understand the associations of individual trait factors with communication apprehension among the Malaysian primary school learners. The rationale for using this research design is to collect breadth of data from large samples and the intention to generalize from the sample obtained to the target population (Creswell, 2014; Leavy, 2017).

2.2.2 Participants

The target participants of this study were Malaysian primary school learners. The survey was administered to learners from eight national primary schools in Malaysia which consisted of national school, national-type Chinese school, and national-type Tamil school, situated in three states in the central region of peninsular Malaysia i.e., Kuala Lumpur, Negeri Sembilan and Selangor. These schools were selected via convenience sampling in order to obtain and facilitate full cooperation from the learners, teachers, and school administrative boards. All learner participants of this study were from the same academic level, Standard 5 and Standard 6 (11 -12 year olds). Learners of this particular age group were chosen because learners were needed to have cognitive maturity to respond to the instruments that require them to reflect on themselves and how anxious they feel. In line with ethnic composition in the Malaysian context as well as taking into consideration that Malaysia is a multiracial country and mixed marriages are common, the ethnicity of participants were categorised into four groups i.e., Malay, Chinese, Indian, and mixed-ethnicity. Learners who identified themselves as Indian or Punjabi were categorised under the same group “Indian” due to their cultural similarities. Learners who identified their ethnicity

as a combination of two or more (i.e., Malay - Chinese, Malay - Indian, and Chinese - Indian) were categorised under "mixed-ethnicity" group.

Table 2.2

Frequency Counts of Schools and Demographic Data

	Number of Learners	Percentage
School		
A National-type Tamil school	45	7.33
B National school	117	19.06
C National school	29	4.72
D National school	63	10.26
E National school	111	18.08
F National-type Chinese school	29	4.72
G National school	220	35.83
Gender		
Female	222	36.16
Male	392	63.84
Race		
Malay	420	68.40
Chinese	35	5.70
Indian	135	21.99
Mixed-ethnicity	24	3.91
Language Spoken at Home		
English	104	16.94
Malay	404	65.80
Mandarin	27	4.40
Tamil	71	11.56
Others	8	1.30
Language Spoken with Friends		
English	106	17.26
Malay	416	67.75
Mandarin	29	4.72
Tamil	63	10.26
Others	0	0

Table 2.2 shows the frequency count of participants based on schools, gender, ethnicity, as well as language spoken at home and with friends. The survey was administered

to a total of 624 Malaysian primary school learners. However, only 614 learners' responses were analysed. Seven learners' responses were excluded from the data analysis due to incomplete responses, while three other learners did not fit the ethnicity type (Malaysian Malay, Chinese, Indian, or mixed-ethnicity) criterion.

Figure 2.1

Clustered Bar Count of Ethnicity by Gender

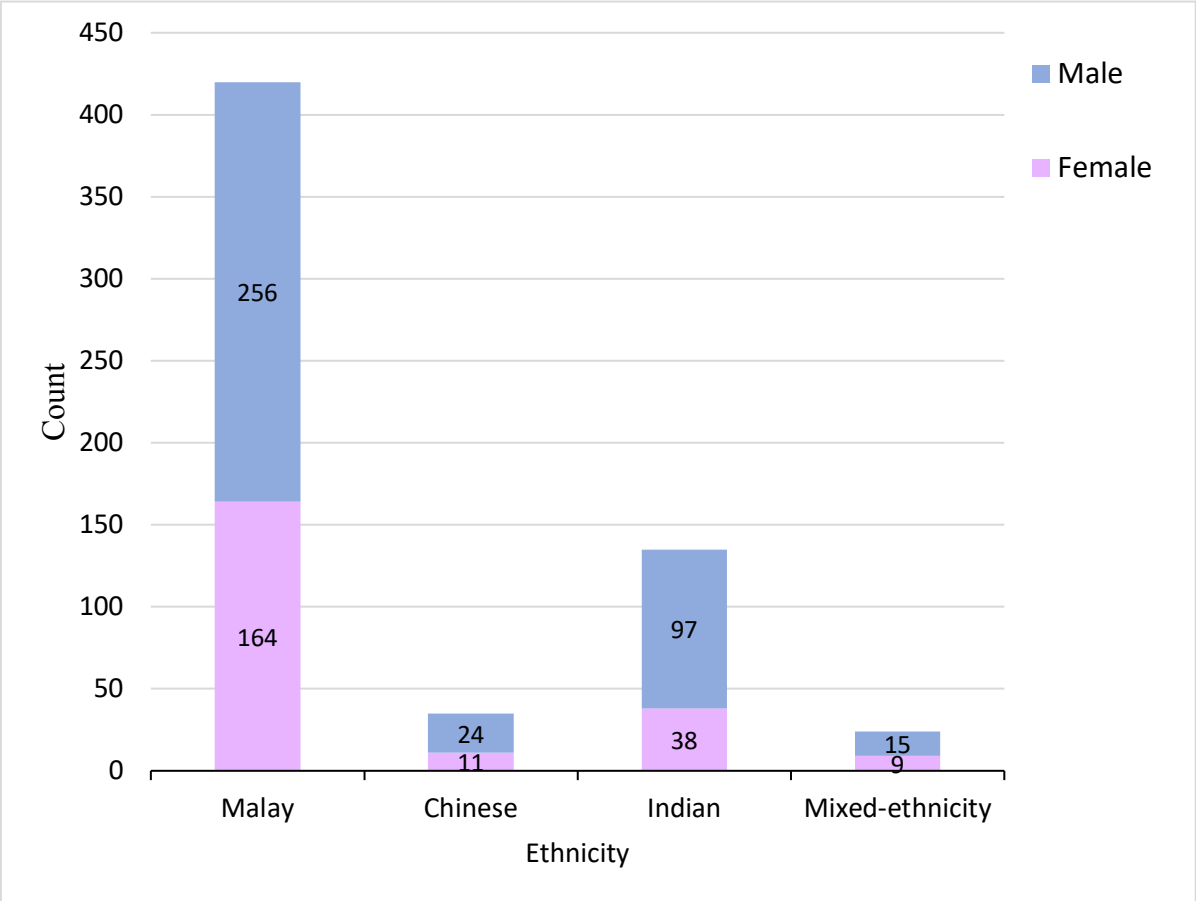


Figure 2.1 shows the distribution of the 614 participants of this study based on gender and ethnicity. Out of the 614 participants, Malay learners comprised of 68%, Indian learners comprised of 22%, while Chinese and mixed-ethnicity learners comprised on 6% and 4% respectively. In addition, male learners in this study comprised of 64%, while female learners

comprised of 36%. There was an unequal distribution of the sample, however, due to convenience sampling, the ethnicity and gender of learners could not be controlled.

2.2.3 Instruments

The survey that was administered to the learners consisted of three sections. The first section of the survey was on the demographic background of learners i.e., gender, and ethnicity, as well as language spoken at home and with friends.

The second section of the survey was adapted from Mackiewicz & Cieciuch's (2016) PPTQ-C. This questionnaire was developed by Mackiewicz & Cieciuch (2016) to measure the Big Five factors among young individuals through self-reporting. Mackiewicz & Cieciuch's (2016) PPTQ-C is appropriate for this study due to its number of items and the language used, and it has found to have good theoretical validity as well as found to be a highly reliable questionnaire to assess children's personality traits (Mackiewicz & Cieciuch, 2016). This questionnaire has been developed in order to overcome the complications in line with measuring children's personality and the highlight of this instrument is that the personality traits are represented by pictures that portray the particular behaviours. Mackiewicz & Cieciuch (2016) were careful to present the characters in each picture to be unisex in order to ensure suitability for both boys and girls to answer the questionnaire. Therefore, it was decided that PPTQ-C was the most suitable questionnaire to fulfil this present study's needs and aims.

The third section comprises the Personal Report of Communication Fear (PRCF; McCroskey et al., 1981). The PRCF is a 5-point Likert scale that consists of 14 statements on an individual's self-evaluation of their feeling towards communicating. The PRCF was designed to measure levels of CA of elementary and secondary school learners and it is to be administered in written form to older children who could read, and orally to preliterate

children (McCroskey et al., 1981). The objective of this scale is to identify the levels of CA of primary and secondary school learners and it consists of fourteen statements with five response options i.e., strongly agree, agree, unsure, disagree, and strongly disagree. Through a principal component analysis, Keaten et al. (1997) identified three subdimensions of the PRCF scale in which the instrument focuses on, i.e., classroom communication fear (CCF), general communication fear (GCF), and stranger communication fear (SCF), proving that the scale is multidimensional. The first subdimension, i.e., CCF, consists of five statements related to learners' classroom communication fear. The second subdimension, i.e., GCF, consists of five statements related to learners' communication fear in general. The third subdimension, i.e., SCF, consists of three statements related to learners communication fear with strangers. Table 2.3 below shows the respective statements for each of the three subdimension. These subdimensions are used for the analysis in this study and the reliability of these subdimensions as reported by Keaten et al. (1997) are reported in Section 2.2.3.2.

Table 2.3

List of Statements for each PRCF Subdimension

Subdimension	Item Number	Statement
CCF	2	I look forward to talking in class.
	3	I like standing up and talking to a group of people
	4	I like to talk when the whole class listens.
	6	I like talking to teachers.
	8	I like it when it is my turn to talk in class.
GCF	5	Standing up to talk in front of other people scares me.
	7	I am scared to talk to people.
	10	When someone asks me a question, it scares me.
	11	There are a lot of people I am scared to talk to.

	13	I like it when I don't have to talk.
SCF	1	Talking with someone new scares me.
	9	I like to talk to new people.
	12	I like to talk to people I haven't met before.

The survey was presented in dual language i.e., English and Malay language. The survey was first translated by two translators who have good language proficiency and competency in both English and Malay languages. The first translator was an international school teacher whose first language is the Malay language, and has a Bachelor's degree in Teaching of English to Speakers of Other Languages as well as a Master's degree in Early Childhood Education. The second translator is a national secondary school teacher who teaches English and History (subject that is taught in Malay language) and has a Master's degree in Psychology as well as a PhD in Education. The translation process involved three steps. First, all instructions and items of the three sections of the survey were forward translated to the Malay language by both the translators. Then, the translated surveys were exchanged between the translators to be back translated to English to check for equivalency (Son, 2018). Lastly, as a result of the translation and accuracy check, the wording of specific items from the original instruments were modified to maintain consistency between the English and Malay languages. Through joint discussion, the modification of the language structures and word choices were agreed by both the translators. However, only the sentence structures and specific words were altered for this present study to ensure that the meaning of each item was maintained. For instance, "when other children play" was changed to "when others play". In addition the use of contractions were also removed, e.g., "doesn't" was changed to "does not", to ensure learners do not misread the items.

2.2.3.1 Scoring PPTQ-C. For Mackiewicz & Cieciuch's (2016) PPTQ-C, each of the items were rated on a 5-point scale in which 'Definitely' situated on the left was given a score of "1" while 'Definitely' situated on the right was given a score of "5". The higher the score (i.e., closer to 5) indicates the higher level of the specific trait. Appendix C presents Mackiewicz and Cieciuch's (2016) guide for analysing the PPTQ-C questionnaire . Based on the guide, items 2, 4, 6, 10, 12, and 14 need to be given a reverse score. Each personality dimension is the total score of the three items for each dimension. For example, summing up the score of items 1, 6 (reverse scored) and 11 will provide the score of extraversion personality dimension. Mackiewicz & Cieciuch's study with primary school learners aged between seven to thirteen years old reported that the Cronbach's alpha reliability coefficients for extraversion was .50, openness was .44, agreeableness was .67, conscientiousness was .61, and neuroticism was .62, with each scale consisting of 3 items each (Mackiewicz & Cieciuch's, 2016). In this present study, the Cronbach alpha values for the entire sample were low, i.e., extraversion $\alpha = .36$, openness $\alpha = .33$, agreeableness $\alpha = .50$, conscientiousness $\alpha = .48$, neuroticism $\alpha = .30$. However, it is important to note that the number of items within each scale impacts the alpha values (Ercan et al., 2007). Nevertheless, the interpretation of this study's analysis was done with the consideration of this limitation.

2.2.3.2 Scoring PRCF. To compute the CA scores, the third section of the survey which consisted of Personal Report of Communication Fear (PRCF) scale by McCroskey et al. (1981) were calculated based on the guides of PRCF. Appendix C consists of the PRCF scoring guide as specified by McCroskey et al. (1981). The PRCF scores ranged from 14 to 70, with a higher score indicating higher level of apprehension.

In addition, the three subdimensions of the PRCF scale that were identified by Keaten et al. (1997) i.e., CCF, GCF and SCF, were computed and included as dependent variables.

For each of these subdimensions, the scores of items specific to each subdimension added and then divided by the number of items respectively. The rationale for diving the score by the number of items is driven by the variation in the number of items across the three subdimensions. For instance the number of items for CCF was five, while the number of items of SCF was three, thus the total for CCF was divided by five and the total for SCF was divided by three. The scores computed for these three subdimensions ranged from 1- 5, in which higher number indicated higher specific communication fear. Prior to calculating the scores of each subdimension, items 1, 5, 7, 10, 11, 13, and 14 were reverse coded to account for negative-positive wording. The following procedures were used to calculate the scores for the three subdimensions.

- CCF = (item 2 + item 3 + item 4 + item 6 + item 8) ÷ 5
- GCF = (item 5 + item 7 + item 10 + item 11 + item 13) ÷ 5
- SCF = (item 1 + item 9 + item 12) ÷ 3

McCroskey et al. (1981) reported that the reliability coefficients of the 14 items of the PRCF as .79. For the subdimensions, it was also reported that the Cronbach's alpha values for CCF was .75, GCF was .64 and SCF was .71 (Keaten et al., 1997). In this present study, the PRCF as well as the three subdimensions, CCF, GCF and SCF for the entire sample, were found to have low Cronbach alphas valued of .63, .57, .52 and .39 respectively.

2.3.3.3 Pilot Study: Survey. The pilot study for the survey was conducted with 50 Standard 6 learners from a national primary school. The aim of the pilot study was to assess (i) the suitability of the research description in the instructions on the information sheet, as well as (ii) the appropriateness survey questions with young learners. During the pilot study, I administered the survey to the participants and verbally explained the instructions to them. I read each question to them and gave them further explanation on the specific items upon their

request. Once they completed the survey, five male learners and five female learners were interviewed in order to obtain their opinions regarding the survey in general, and specifically on the items. The interview questions were driven by the objectives of this pilot study. Example of the interview questions include "Do you think you would have been able to answer all the questions if the Malay translation was not given?", "Do you think you would have been able to answer the questions without my explanation/assistance?".

It was found that the participants understood better when the instructions were verbally explained to them rather than when they read the written instructions on the survey by themselves. Although the participants claimed that the instructions were understandable, they preferred verbal explanation as they found the instructions on the information sheet to be lengthy and they did not understand certain terminologies used (i.e., communication apprehension). As such, in the actual study, the instructions on the information sheet and consent from were verbally explained and each question was read out to the participants. In addition, I also found during the pilot study that the dual language provided was helpful as some of them preferred to read the items in the Malay language and were able to understand better as they had an option to read the items in the Malay language whenever they were not able to fully understand the English version. Thus, for the actual study, the survey consisted of dual languages.

2.2.4 Data Collection and Analysis

2.2.4.1 Data Collection Procedure. This study was approved by the Faculty of Arts and Social Sciences Research Ethics Committee of the University of Nottingham Malaysia (FASS2018-0014/SoEd/PR18017509). The ethics approval obtained applied to all studies reported in the subsequent chapters. This study followed the University of Nottingham's research code of conduct and the data collection only begun upon receiving the ethics approval from the Research Ethics Committee.

The school principals were approached and permission to conduct the survey in the respective schools was obtained. The surveys were then administered to the participants in their respective classrooms in the presence of their teacher. First, the information regarding the study was verbally explained to them and then their consent to participate in the survey was obtained. The learner participants in this research (Study 1, Study 2 and Study 3) only participated upon giving their written consent and agreeing to take part in this research after they had understood the nature of the research and what they were required to do (see Appendix A). Written consent was also obtained from their parents and school principals (see Appendix A).

Prior to completing each of the survey section, a verbal explanation of its content was given. In addition, each of the survey items were read out loud in classroom and when participants needed assistance or did not understand specific items, clarifications were then given to the respective participants. To ensure that language was not a barrier in understanding the survey items, each of the items were first read in English, then followed by the Malay language. Clarifications were also given in both languages. Upon completion, the participants were reminded that if they felt uncomfortable to answer these questions, they may withdraw their participation. Similar to the pilot study, the entire process of survey administration for each class took approximately 30-40 minutes.

2.2.4.2 Data Analysis. The variables of the study include personality trait scores, ethnicity groups, gender, and CA scores (total CA, CCF, GCF, SCF). Additionally, learners with high CA were identified based on the cut-off point of one standard deviation above the PRCF mean of the sample (McCroskey et al., 1981; Watson et al., 1988). The mean score for sample of this study was 36.54, and the standard deviation was 8.22. Therefore, learners who

scored 45 and above were categorised as high CA and the rest were categorised as non-high CA in this study.

All data analyses were conducted using IBM-SPSS Statistics version 28. This study utilized the Pearson chi-square test of independence to analyse the differences in gender and ethnicity between learners with high and non-high CA levels. The factorial ANOVA tests were used to examine the interaction between (i) gender and CA levels on personality traits and (ii) ethnicity and CA levels on personality traits. While the hierarchical multiple linear regression tests examined the individual trait factors that predict the learners' CA scores. All tests were performed at two-tailed level, and p-value less than .05 were regarded as statistically significant.

Research Questions 1a and 1b. For RQ 1a (What is the association between gender and communication apprehension of Malaysian primary school learners?), this study investigated whether there is an association between gender and CA levels. As both variables, gender (male, female) and CA levels (high CA, non-high CA), were categorical, the Pearson chi-squared test of independence was used (Peers, 2006). Similarly, for RQ1b (What is the association between ethnicity and communication apprehension of Malaysian primary school learners?), in order to investigate whether there is an association between ethnicity and CA levels, Pearson chi-square test of independence was conducted because both the variables, ethnicity (Malay, Chinese, Indian, mixed-ethnicity) and CA levels (high CA, non-high CA) were categorical.

Research Question 1c and 1d. (RQ 1c) What is the interaction between gender and communication apprehension of Malaysian primary school learners on personality traits? (RQ 1d) What is the interaction between ethnicity and communication apprehension of Malaysian primary school learners on personality traits? Factorial ANOVA tests were conducted to answer both these research questions. Prior to conducting these tests, I

examined the types of data, normality and homogeneity of variance (Peers, 2006; Warner 2012). Skewness, kurtosis, Shapiro-Wilk test of normality and Levene's test of error variances of the personality scores were calculated to ensure that the data met the assumptions of ANOVA.

In order to examine the interaction between gender and CA levels on personality traits for RQ 1c, five 2x2 factorial ANOVA tests were conducted, one for each of the five personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism. The independent variables of gender and communication apprehension were categorical and each contained two levels: male and female; high CA and non-high CA. The dependent variables were the total scores of the personality traits. Each of these factorial ANOVA tests were used to determine the: (i) main effect of gender on personality traits, (ii) main effect of CA levels on personality traits, (iii) and interaction effect of gender and CA levels on personality traits.

Similarly, for RQ 1d, this study examined the interaction between ethnicity (Malay, Chinese, Indian, and mixed-ethnicity) and CA (high CA and non-high CA) levels on personality traits by conducting five 2x4 factorial ANOVA tests, one for each of the five personality traits. Each of the 2x4 factorial ANOVA tests were used to determine the: (i) main effect of ethnicity on personality traits, (ii) main effect of CA levels on personality traits, (iii) and interaction effect of ethnicity and CA levels on personality traits; each significant effect was followed up by a Bonferroni post hoc analysis with adjusted alpha level of .0125 to identify which pairs of means differed significantly.

Research Question 1e. For RQ 1e (What individual traits predict communication apprehension of Malaysian primary school learners?), four hierarchical multiple linear regression analysis were performed to explore the individual trait factors that predicted the learners' overall CA level (total CA scores), and the levels of CCF, GCF, SCF. Prior to

analysing the data using hierarchical multiple linear regressions, the assumptions of variable types, outliers, linearity, normally distributed errors, multicollinearity, independent errors, normality and homoscedasticity were ascertained (Field, 2018; Hanneman et al., 2013), and the outcomes are reported in Appendix D.

Table 2.4 specifies the variables included the two models of each respective hierarchical multiple linear regressions. For each of the hierarchical multiple linear regressions, in the first model, gender and ethnicity were included as control variables. As the both gender and ethnicity variables consisted of more than 2 categories, the variables were entered as dummy variables. The Malay ethnicity and female gender were used as the reference group for ethnicity and gender variables respectively. In the second model, the scores of the five personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism, were included as a block to explore how they related to learners' CA scores. These steps of variable inclusion were identical for the four hierarchical multiple linear regression which examined the total CA, CCF, GCF and SCF scores respectively.

Table 2.4

Hierarchical Multiple Linear Regressions' Models for Analysis

Model	Variables	Dummy Codes
Model 1	Gender	
	Female[a]	not Female = 0, Female = 1
	Male	not Male= 0, Male = 1
	Ethnicity	
	Malay[b]	not Malay = 0, Malay = 1
	Chinese	not Chinese = 0, Chinese = 1
	Indian	not Indian = 0, Indian = 1
	Mixed-ethnicity	not Mixed-ethnicity = 0, Mixed-ethnicity =1

Model 2	+ Five personality scores Extraversion Openness Agreeableness Conscientiousness Neuroticism

Note. [a] Reference group for gender; [b] Reference group for ethnicity

2.3 Results

2.3.1 Association of Gender and Ethnicity With Communication Apprehension

The chi-squared tests of independence were performed to examine whether there is an association of gender (female and male) and ethnicity (Malay, Indian, Chinese, and mixed-ethnicity) with CA levels (high CA and non-high CA) among Malaysian primary school learners. As only learners who scored one standard deviation above the sample mean were classified as high CA, it was expected that the distribution of learners in these two groups would not be equal, and unsurprisingly there only were fewer learners in high CA group (i.e., 16.29%) compared to the non-high CA group (i.e., 83.71%). Table 2.5 shows the gender and ethnicity distribution of CA among Malaysian primary school learners and the chi-square statistics.

The first chi-square test of independence was performed to examine whether there was a significant association between gender and the two levels of CA. It was hypothesised that there will be more female learners with high CA compared to male learners. The frequency of occurrence for male and female learners was not significantly different between the high CA and non-high CA groups, X^2 (1, N = 614) = 0.18, p = .68. The second chi square test of independence was performed to examine whether there was a significant association between ethnicity and CA levels. I hypothesised that there would be a difference in the occurrence of high CA vs non-high CA according to ethnicity groups. Similar to gender, it was found that the frequencies of occurrence of high and non-high CA among the Malay,

Chinese, Indian, and mixed-ethnicity were not significantly different, X^2 (3, N = 614) = 4.33, p = .23. These results indicated that there were no significant differences in the occurrence of high CA and non-high CA based on gender and ethnicity. These were in contrast to past findings of adult learners that showed that the CA of female learners were significantly higher than male learners (e.g., Lang et al., 1998; Loureiro et al., 2020; Rafek et al., 2014) as well as the differences that exists the levels of CA across various ethnic groups (e.g., Hsu, 2004; Keaten et al., 1997; Neuliep et al., 2003)

Table 2.5

Gender and Ethnicity Distribution of Communication Apprehension Levels and Chi Square Test of Independence

		n	%	Pearson Chi-Square			
				X^2	*df*	*p*	η²
Gender				0.176	1	.675	-. 017[a]
	Female						
	High CA	38	17.1				
	Non-high CA	184	82.9				
	Male						
	High CA	62	15.8				
	Non-high CA	330	84.2				
Ethnicity				4.329	3	.228	.084[b]
	Malay						
	High CA	65	15.5				
	Non-high CA	355	84.5				
	Chinese						
	High CA	10	28.6				
	Non-high CA	25	71.4				
	Indian						
	High CA	22	16.3				
	Non-high CA	113	84.2				
	Mixed-ethnicity						
	High CA	3	12.5				
	Non-high CA	21	87.5				

Note. N = 614. X^2 = Person Chi-Square statistic, η² = effect size.

[a] Phi effect size score; [b] Cramer's V effect size score

2.3.2 Association of Personality and Communication Apprehension

As the findings of the chi-square tests revealed that individual traits i.e., gender and ethnicity were not significantly associated with the levels of CA, these individual traits were further examined to understand whether gender and ethnicity interacted with the high and non-high CA levels and have an effect on the five personality traits i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism. Factorial ANOVA tests were conducted. It was hypothesised that the mean scores of the personality traits will differ based on gender and CA level, and will also differ based on ethnicity and CA level. The data met all assumptions of ANOVA, types of data, normality and homogeneity of variance (see Appendix D).

2.3.2.1 Interaction between Gender and Communication Apprehension, and Personality Traits.

The results of the Factorial ANOVAs for the effects of gender and communication apprehension levels on each of the five personality traits are presented in Table 2.6.

Table 2.6

Factorial ANOVA for the Effects of Gender and Communication Apprehension Group on Personality Traits

Dependent Variable	Effect	$F(1, 610)$	p	η_p^2
Extraversion	Gender	0.099	.753	.000
	CA Group	22.811	<.001***	.036
	Gender x CA Group	0.579	.447	.001
Openness	Gender	6.236	.013*	.010
	CA Group	9.890	.002**	.016
	Gender x CA Group	0.795	.373	.001

Agreeableness	Gender	1.190	.276	.002
	CA Group	4.962	.026*	.008
	Gender x CA Group	0.005	.946	.000
Conscientiousness	Gender	0.364	.546	.001
	CA Group	7.693	.006**	.012
	Gender x CA Group	1.437	.231	.002
Neuroticism	Gender	0.187	.666	.000
	CA Group	28.254	<.001***	.044
	Gender x CA Group	0.239	.625	.000

Note. $N = 614$. $\eta_p^2 =$ Partial Eta Squared; *$p < .05$, **$p < .01$, ***$p < .001$.

Extraversion. The 2x2 ANOVA revealed no significant main effect between gender and extraversion scores ($F(1, 610) = 0.099$, $p = .753$), which indicated that male and female learners did not significantly differ in their extraversion scores. There was however a significant effect between CA levels and extraversion score ($F(1, 610) = 22.811$, $p < .001$, $\eta_p^2 = .036$), as non-high CA learners ($M = 11.95$, $SD = 2.73$) had significantly higher extraversion mean scores than high CA learners ($M = 10.50$, $SD = 3.10$). The main effect of level of communication apprehension yielded a small effect size of 0.036, indicating that 3.6% of the variance in the extraversion scores was explained by level of communication apprehension. Finally, there was no interaction effect between gender and CA levels on extraversion ($F(1, 610) = 0.579$, $p = .447$).

Openness. In the second 2x2 ANOVA, it was found that there was a significant main effect between gender and openness scores ($F(1, 610) = 6.236$, $p = .013$, $\eta_p^2 = .010$), as female learners ($M = 12.22$, $SD = 2.46$) had significantly higher openness mean scores than male learners ($M = 11.30$, $SD = 2.82$), with a small effect size, 0.10. Similar to gender, there was also a significant main effect between CA levels and openness scores ($F(1, 610) = 9.890$, $p = .002$, $\eta_p^2 = .016$). Learners in the non-high CA group ($M = 11.77$, $SD = 2.71$) had

significantly higher openness scores than learners in the high CA group (M = 10.91, SD = 2.72). However, there was no significant interaction found between these two variables on openness scores (F(1, 610) = 0.795, p = .373).

Agreeableness. The 2x2 ANOVA with agreeableness as the dependent variable revealed that there was no significant main effect for gender (F(1, 610) = 1.190, p = .276) as male learners (M = 12.15, SD = 2.66) and female learners (M = 12.46, SD = 2.30) had similar agreeableness scores. In contrast, there was a significant main effect between CA levels and agreeableness scores (F(1, 610) = 4.962, p = .026, $\eta_p^2 = .008$). Learners with non-high CA (M = 12.36, SD = 2.48) had significantly higher agreeableness mean scores than those with high CA (M = 11.74, SD = 2.77). As findings revealed the significant main effect between CA levels and agreeableness scores, it was concluded that 0.8 % of the variance in the agreeableness scores was explained by CA levels. However, similar to the 2x2 ANOVA for the other personality traits, there was no significant interaction effect between gender and level of communication apprehension on agreeableness (F(1, 610) = 0.005, p = .946).

Conscientiousness. The fourth 2x2 ANOVA showed no significant main effect for gender (F(1, 610) = 0.364, p = .546), which indicated that the conscientiousness scores of male (M = 11.99, SD = 2.85) and female (M = 12.42, SD = 2.67) learners were not significantly different. There was however, a significant main effect between CA levels on conscientiousness scores (F(1, 610) = 7.693, p = .006, $\eta_p^2 = .012$) which indicated that learners with non-high CA (M = 12.27, SD = 2.77) had significantly higher conscientiousness mean scores than those with high CA (M = 11.51, SD = 2.80). The findings also revealed that 1.2% of the variance in the conscientiousness scores was explained by CA levels. There was no significant interaction effect between gender and CA levels (F(1, 610) = 1.437, p = .231).

Neuroticism. 2x2 ANOVA revealed no significant main effect between gender and neuroticism scores (F(1, 610) = 0.187, p = .666). Male (M = 7.16, SD = 2.68) and female (M

= 7.22, *SD* = 2.91) learners did not have significantly different neuroticism scores. Similar to the previous four personality scores, a significant main effect for CA levels were found ($F(1, 610) = 28.254$, $p < .001$, $\eta_p^2 = .044$) and 4.4 % of the variance in the neuroticism scores was explained by CA levels. It was concluded that learners with non-high CA (*M* = 6.92, *SD* = 2.72) had significantly lower neuroticism mean scores than those with high CA (*M* = 8.51, *SD* = 2.62). Finally, there was no significant interaction effect between gender and CA levels on neuroticism ($F(1, 610) = 0.239$, $p = .625$).

In summary, gender has a main effect only on one type of personality score, openness. As expected, learners with non-high CA levels had significantly higher extraversion, openness, agreeableness and conscientiousness scores, as well as significantly lower neuroticism score than learners with high CA levels. However, the effect sizes were small, indicating that CA levels contributed to only a small percentage of variances in the personality scores. Finally, there were no significant interaction effects found between gender and CA levels for all five personality scores and therefore the findings of this study did not support the hypothesis, i.e., the mean scores of the five personality traits, i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism, will differ based on gender and CA levels.

2.3.2.2 Interaction between Ethnicity and Communication Apprehension, and Personality Traits. Another five factorial ANOVA tests were conducted with ethnicity and levels of CA as the independent variables, and each of the five personality trait scores as the dependent variables. For the ethnicity variable which consists of four groups, the Bonferroni post hoc analysis was used to reveal which pair of means differed significantly for all significant findings. The Factorial ANOVAs for the effects of ethnicity and CA levels on

each of the five personality traits are presented in Table 2.7. The descriptive statistics of each personality trait based on the independent variables are presented in Appendix D.

Table 2.7

Factorial ANOVA for the Effects of Ethnicity and Communication Apprehension Group on Personality Traits

Dependent Variable	Source	$F(1, 606)$	p	η_p^2
Extraversion	CA Group	10.022	.002**	.016
	Ethnicity	2.961	.032*	.014
	CA Group x Ethnicity	1.865	.134	.009
Openness	CA Group	1.325	.250	.002
	Ethnicity	5.138	.002**	.025
	CA Group x Ethnicity	.405	.749	.002
Agreeableness	CA Group	1.886	.170	.003
	Ethnicity	4.537	.004**	.022
	CA Group x Ethnicity	.587	.623	.003
Conscientiousness	CA Group	.013	.908	.000
	Ethnicity	4.946	.002**	.024
	CA Group x Ethnicity	1.444	.229	.007
Neuroticism	CA Group	6.425	.012*	.010
	Ethnicity	3.333	.019*	.016
	CA Group x Ethnicity	1.273	.283	.006

Note. N = 614. η_p^2 = Partial Eta Squared; *$p < .05$, **$p < .01$, ***$p < .001$.

Extraversion. The first 2x4 ANOVA revealed a significant main effect between CA levels and extraversion score ($F(1, 606) = 10.022$, $p = .002$, $\eta_p^2 = .016$), and 1.6 % of the variance in the extraversion scores were explained by CA levels. Learners in the non-high CA group ($M = 11.95$, $SD = 2.73$) had significantly higher mean extraversion scores than learners in the high CA group ($M = 10.50$, $SD = 3.10$). Although, it appeared that there was

also a significant main effect between ethnicity and extraversion scores ($F(3, 606) = 2.961$, $p = .032$, $\eta_p^2 = .014$), with a Bonferroni adjusted alpha level of .0125 (.05/4), the differences in the mean scores between Malay ($M = 11.62$, $SD = 2.82$), Chinese ($M = 10.94$, $SD = 3.02$), Indian ($M = 12.16$, $SD = 2.87$) and mixed-ethnicity ($M = 12.00$, $SD = 2.85$) learners, were not significant. Finally, there was no significant interaction effect between ethnicity and CA levels ($F(3, 606) = 1.865$, $p = .134$).

Openness. In the next 2x4 ANOVA, no significant main effect between CA levels and openness scores were found ($F(1, 606) = 1.325$, $p = .250$). There was however, a significant main effect between ethnicity and openness scores ($F(3, 606) = 5.138$, $p = .002$, $\eta_p^2 = .025$), and 2.5 % of the variance in the openness scores was explained by ethnicity. The post hoc test using Bonferroni adjustment revealed that learners of Indian ethnicity had a significantly higher openness mean score than learners of Malay ($p = .003$, CI [0.24, 1.64]) and Chinese ($p = .002$, CI [0.47, 3.17]) ethnicity. Finally, there was no significant interaction effect between ethnicity and CA levels ($F(3, 606) = 0.405$, $p = .749$).

Agreeableness. The third 2x4 ANOVA revealed no significant main effect between CA levels and agreeableness scores ($F(1, 606) = 1.886$, $p = .170$) which indicated that high CA and non-high CA learners had similar agreeableness scores. There was however, a significant main effect for ethnicity ($F(3, 606) = 4.537$, $p = .004$, $\eta_p^2 = .022$). The post hoc test revealed that learners of Indian ethnicity had significantly higher agreeableness mean score than learners of Malay ethnicity ($p < .001$, CI [0.35, 1.66]). It was concluded that 2.2% of the variance in the agreeableness scores was explained by ethnicity. However, there was no significant interaction effect between ethnicity and CA levels on agreeableness ($F(3, 606) = 0.587$, $p = .623$).

Conscientiousness. The 2x4 ANOVA with conscientiousness as the dependent variable revealed no significant main effect for CA levels ($F(1, 606) = 0.013$, $p = .908$),

which indicated that the conscientiousness scores were not significantly different between learners of high CA and non-high CA. There was however, a significant main effect for ethnicity ($F(3, 606) = 4.946$, $p = .002$, $\eta_p^2 = .024$) and 2.4% of the variance in the conscientiousness scores was explained by ethnicity. Similar to the agreeableness traits, the Bonferroni adjustments revealed that learners of Indian ethnicity had significantly higher conscientiousness mean score than learners of Malay ethnicity ($p < .001$, CI [0.37, 1.80]). Finally, there was no significant interaction effect between ethnicity and level of communication apprehension on conscientiousness ($F(2, 606) = 1.444$, $p = .229$).

Neuroticism. In the last 2x4 ANOVA there was a significant main effect between CA levels and neuroticism scores ($F(1, 606) = 6.425$, $p = .012$, $\eta_p^2 = .010$), which indicated that non-high CA learner ($M = 6.92$, $SD = 2.72$) had significantly lower neuroticism mean scores than High CA learners ($M = 8.51$, $SD = 2.62$). Similarly, there was also a significant main effect between ethnicity and neuroticism scores ($F(3, 606) = 3.333$, $p = .019$, $\eta_p^2 = .016$). The post hoc test using Bonferroni adjustment revealed that learners of Indian ethnicity had significantly lower neuroticism mean score than learners of mixed-ethnicity ($p = .035$, CI [-3.22, -0.07]). As main effects were found for both CA levels and ethnicity, it was concluded 1.0 % and 1.6% of the variance in the neuroticism scores were respectively explained by CA levels and ethnicity. However, there was no significant interaction effect between ethnicity and CA levels on neuroticism ($F(3, 606) = 1.273$, $p = .283$).

Based on these sets of 2x4 ANOVA tests that were conducted to determine whether the scores of the fives personality traits differed based on ethnicity and CA levels, it was found that the non-high CA learners had significantly higher extraversion score and lower neuroticism score compared to high CA learners. Interestingly, there were main effects found between ethnicity and all five of the personality scores i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism. Learners of Indian ethnicity had

significantly higher openness, agreeableness and conscientiousness scores, as well as significantly lower neuroticism score in comparison to learners of other ethnicities. It was hypothesised that the mean scores of the five personality traits will differ based on ethnicity and CA levels, however, there were no significant interaction effects found between ethnicity and CA levels for all five personality scores.

In conclusion, the results of all 10 factorial ANOVA tests indicated that there is an association between CA levels and personality traits, as extraversion, openness, agreeableness, and conscientiousness were positively associated with CA, while neuroticism was negatively associated with CA. However, gender or ethnicity as trait factors, did not interact with CA levels to have an effect on personality traits. To obtain a better understanding on how the individual traits predict the different types of CAs, multiple linear regressions were conducted.

2.3.3 Factors That Predict Communication Apprehension

The data of the study met the assumptions to determine whether a linear multiple regression model is appropriate to analyse the data. The assumptions of the linear model include: variable types, no outliers, linearity, normally distributed errors, multicollinearity, normality, and homoscedasticity (Field, 2018; Hanneman et al., 2013). For each of the hierarchical linear regression, these assumptions were tested and reported in Appendix D.

2.3.3.1 Correlations Between Variables. A correlation matrix using Pearson's product moment correlation was constructed and examined to see how each of this study's variable correlated with each other. The correlations between variables are reported in Table 2.8. Firstly, gender (i.e., male and female) correlated with two personality traits (i.e., openness and conscientiousness) and the stranger CA score. Secondly, out of the four ethnic

groups, the Malay and Indian ethnicities were found to have correlations with four of the personality traits (i.e., openness, agreeableness, conscientiousness, and neuroticism) and the CA scores (i.e., total CA, CCF, and GCF). Although the Chinese ethnicity positively correlated with total CA and GCF, there were no other significant correlations of the Chinese ethnicity and mixed-ethnicity with other variables in this study. Thirdly, there were significant correlations between all five personality traits (i.e., extraversion, openness, agreeableness, conscientiousness, neuroticism) and the four CA scores (i.e., total CA, CCF, GCF, SCF). The neuroticism personality score positively correlated with the CA scores, and in contrast, extraversion, openness, agreeableness, and conscientiousness personality scores negatively correlated with the CA scores. Refer to Table 2.8 for the correlation scores of these variables. As the individual trait factors (i.e., gender, ethnicity, personality traits) correlated with the CA scores, all variables were included in the subsequent hierarchical multiple linear regression analyses.

Table 2.8

Descriptive Statistics and Correlations for Study Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Malay	0.68	0.47	-														
2 Chinese	0.06	0.23	-.36**	-													
3 Indian	0.22	0.41	-.78**	-.13	-												
4 Mix-ethnicity	0.04	0.19	-.30**	-.05	-.11	-											
5 Female	0.36	0.48	.09	-.02	-.09*	.01	-										
6 Male	0.64	0.48	-.09	.02	.09*	-.01	-1.00***	-									
7 E	11.71	2.85	-.05	-.07	.08	.02	.01	-.01	-								
8 O	11.63	2.73	-.10	-.10	.15**	.03	.16***	-.16***	.15**	-							
9 A	12.26	2.54	-.16**	.02	.15**	.04	.06	-.06	.27**	.17**	-						
10 C	12.15	2.79	-.15**	.02	.15**	.01	.07*	-.07*	.18**	.31**	.30**	-					
11 N	7.18	2.76	.02*	.06	-.10	.08	.01	-.01	-.22**	-.14**	-.29**	-.28**	-				
12 CA	36.54	8.22	.05	.08*	-.10**	-.02	.06	-.06	-.28***	-.21***	-.19***	-.17***	.28***	-			
13 CCF	2.62	0.84	.21***	.05	-.25***	-.03	.01	-.01	-.27***	-.19***	-.17***	-.13***	.15***	.68***	-		
14 GCF	2.53	0.82	-.07*	.12**	.02	-.01	.04	.04	-.18***	-.13**	-.09*	-.08*	.21***	.77***	.21***	-	
15 SCF	2.75	0.92	-.03	-.00	.05	-.03	.12***	-.12***	-.09*	-.06	-.12**	-.13***	.20***	.60***	.14***	.32***	-

Note. $N = 614$; Pearson Correlation (2-tailed) *$p < .05$, **$p < .01$, ***$p < .001$.

E = Extraversion, O = Openness, A = Agreeableness, C = Conscientiousness, N = Neuroticism, CA = Communication Apprehension, CCF = Classroom Communication Fear, GCF = General Communication Fear, SCF = Stranger Communication Fear

2.3.3.2 Hierarchical Multiple Linear Regression. In order to determine how CA is related to the predictor variables in this study, a set of four hierarchical multiple linear regressions using the enter method were computed for the dependent variables i.e., total, classroom, general, and stranger CA scores. For each of these hierarchical multiple linear regressions, in the first step, gender and ethnicity were included as control variables to see how they related to learners' CA. In the second step, all five personality scores were included as a block to ascertain how they related to CA. These personality components were extraversion, openness, agreeableness, conscientiousness and neuroticism. The results four hierarchical multiple linear regressions are presented in Table 2.9.

Total CA. The first hierarchical multiple linear regression analysed the predictors of total CA scores. With gender and ethnicity as predictors, the model was statistically significant, $F(4, 609) = 2.812$, $p = .025$, and accounted for 1.8% of the variability in total CA scores. When the five personality trait scores were added as predictors in Step 2, the model was still found to be significant, $F(5, 604) = 21.289$, $p < .001$, and accounted for an additional 14.7% of the variation in total CA scores. Although gender was not a significant predictor in the first model, when personality traits were added in, male gender ($\beta = -.089$, $p = .020$) then uniquely and negatively predicted the total CA scores. In addition, there were three personality traits that uniquely predicted total CA score, extraversion ($\beta = -.198$, $p < 001$), openness ($\beta = -.146$, $p < 001$) and neuroticism ($\beta = .192$, $p < 001$). Together gender, ethnicity and personality traits accounted for 16.5% of the variance in learners' total CA.

Classroom Communication Fear (CCF). The predictors of CCF was analysed in the second hierarchical multiple linear regression. It was found that the model was significant, $F(4, 609) = 11.092$, $p < .001$, with gender and ethnicity as predictors, and 6.8% of the variation in CCF scores were accounted by these two variables. However, the only variable that uniquely predicted was the Indian ethnic group ($\beta = -.259$, $p < .001$). When the

personality variables were added as predictors in Step 2, the model was also significant, F(5, 604) = 11.359, $p < .001$, and accounted for an additional 8.0% of the variation in CCF. Indian ethnic group (β = - .213, $p < .001$) was still a unique predictor of CCF. In comparison to total CA, only two personality types predicted CCF scores, i.e., extraversion (β = - .209, $p < .001$) and openness (β = - .110, $p = .007$). Together, gender, ethnicity. and personality traits accounted for 14.8% of the variance in learners' CCF.

General Communication Fear (GCF). The third hierarchical multiple linear regression examined the predictors of learners' GCF. The first model which consisted of gender and ethnicity as the predictors, was significant, $F(4, 609) = 2.651$, $p = .032$, and accounted for 1.7% of the variation in learners' GCF. In this model, Chinese ethnic group (β = .124, $p = .002$) was the only variable that uniquely predicted learners' GCF. In Step 2, when the personality variables were added as predictors, the model was also significant, F(5, 604) = 9.255, $p < .001$. The personality variables accounted for an additional 7.0% of the variation in learners' GCF. Interestingly, when the personality variables were added, the Indian ethnic group also contributed as a significant predictor (β = .081, $p = .048$), while the Chinese ethnic group (β = .100, $p = .012$) still remained a significant predictor. Similar to total CA, three personality traits also uniquely predicted learners' GCF, extraversion (β = - .132, $p = .001$), openness (β = - .103, $p = .014$) and neuroticism (β = .164, $p < .001$). It was concluded that, these individual traits i.e., gender, ethnicity, and personality scores, accounted for 8.7% of the variance in learners' GCF.

Stranger Communication Fear (SCF). The last hierarchical multiple linear regression analysed the predictors of SCF. With gender and ethnicity as predictors, the model was significant, $F(4, 609) = 2.971$, $p = .019$, and accounted for 1.9% of the variation in SCF. In this model, gender (β = - .125, $p = .002$) was the only variable that uniquely predicted learners' SCF. When the personality variables were added in Step 2, the model was also

significant, $F(5, 604) = 7.677$, $p < .001$, and accounted for an additional 5.9% of the variation in SCF. In this model, the Indian ethnic group became a significant predictor ($\beta = .107$, $p = .009$), while the male gender remained a significant negative predictor ($\beta = -.143$, $p < .001$). Surprisingly, neuroticism ($\beta = .162$, $p < .001$) was the only personality that uniquely predicted SCF. In conclusion, 7.8% of the variance in learners' SCF were accounted by gender, ethnicity and personality scores.

As hypothesised, it was found that individual trait factors predicted CA scores of Malaysian primary school learners. The results showed that gender (i.e., male) negatively predicted total CA and SCF scores. Among the four ethnicities, Chinese ethnicity positively predicted GCF score, while the Indian ethnicity negatively predicted CCF score and positively predicted GCF and SCF scores. Additionally, among the five personality traits, extraversion, and openness personality traits negatively predicted total CA, CCF and GCF scores. In contrast, it was found that the neuroticism personality trait positively predicted total CA, GCF and SCF scores but surprisingly, not CCF.

Table 2.9

Results of Hierarchical Multiple Linear Regressions

Dependent variable	Model	Predictor Variable	R^2	B	SE B	β	t	*p*
CA	1 F(4, 609) = 2.812	(Constant)	.018	38.367	1.180		32.524	<.001***
		Chinese		2.546	1.439	.072	1.769	.077
		Indian		-1.678	.812	-.085	-2.066	.039*
		Mixed-ethnicity		-1.242	1.716	-.029	-.724	.469
		Male		-.949	.690	-.055	-1.375	.170
	2 F(5, 604) = 21.289	(Constant)	.165	49.589	3.047		16.277	<.001***
		Chinese		1.555	1.345	.044	1.156	.248
		Indian		-.355	.773	-.018	-.459	.647
		Mixed-ethnicity		-1.258	1.602	-.030	-.785	.433
		Male		-1.518	.651	-.089	-2.333	.020*
		Extraversion		-.572	.114	-.198	-5.021	<.001***
		Openness		-.439	.121	-.146	-3.616	<.001***
		Agreeableness		-.154	.134	-.047	-1.151	.250
		Conscientiousness		-.077	.123	-.026	-.626	.531
		Neuroticism		.571	.121	.192	4.731	<.001***
CCF	1 F(4, 609) = 11.092	(Constant)	.068	2.717	.117		23.206	<.001***
		Chinese		.054	.143	.015	.378	.706
		Indian		-.523	.081	-.259	-6.487	<.001***
		Mixed-ethnicity		-.237	.170	-.055	-1.390	.165
		Male		.017	.068	.010	.251	.802

	2 F(5, 604) = 11.359	(Constant)	.148	3.939	.314		12.562	<.001***
		Chinese		-.019	.138	-.005	-.136	.892
		Indian		-.430	.080	-.213	-5.401	<.001***
		Mixed-ethnicity		-.200	.165	-.046	-1.216	.225
		Male		-.026	.067	-.015	-.391	.696
		Extraversion		-.062	.012	-.209	-5.257	<.001***
		Openness		-.034	.012	-.110	-2.712	.007**
		Agreeableness		-.017	.014	-.052	-1.236	.217
		Conscientiousness		.003	.013	.009	.208	.836
		Neuroticism		.017	.012	.057	1.389	.165
GCF	1 F(4, 609) = 2.651	(Constant)	.017	2.614	.118		22.172	<.001***
		Chinese		.438	.144	.124	3.044	.002**
		Indian		.082	.081	.041	1.009	.313
		Mixed-ethnicity		.013	.171	.003	.076	.939
		Male		-.078	.069	-.046	-1.136	.256
	2 F(5, 604) = 9.255	(Constant)	.087	3.100	.318		9.740	<.001***
		Chinese		.355	.141	.100	2.529	.012**
		Indian		.160	.081	.081	1.975	.049*
		Mixed-ethnicity		-.009	.167	-.002	-.052	.958
		Male		-.110	.068	-.065	-1.623	.105
		Extraversion		-.038	.012	-.132	-3.216	.001**
		Openness		-.031	.013	-.103	-2.456	.014**
		Agreeableness		-.002	.014	-.005	-.127	.899
		Conscientiousness		.003	.013	.010	.238	.812
		Neuroticism		.049	.013	.164	3.866	<.001***

SCF	1 F(4, 609) = 2.971	(Constant)	.019	3.115	.132		23.519	<.001***
		Chinese		.023	.162	.006	.145	.885
		Indian		.139	.091	.063	1.529	.127
		Mixed-ethnicity		-.128	.193	-.027	-.666	.506
		Male		-.240	.077	-.125	-3.102	.002**
	2 F(5, 604) = 7.677	(Constant)	.078	3.597	.360		9.999	<.001***
		Chinese		-.008	.159	-.002	-.050	.960
		Indian		.238	.091	.107	2.607	.009**
		Mixed-ethnicity		-.150	.189	-.031	-.792	.428
		Male		-.275	.077	-.143	-3.583	<.001***
		Extraversion		-.010	.013	-.030	-.716	.475
		Openness		-.015	.014	-.043	-1.023	.307
		Agreeableness		-.022	.016	-.060	-1.389	.165
		Conscientiousness		-.023	.015	-.070	-1.587	.113
		Neuroticism		.054	.014	.162	3.800	<.001***

Note. $N = 614$; *$p < .05$, **$p < .01$, ***$p < .001$

CA = Communication Apprehension, CCF = Classroom Communication Fear, GCF = General Communication Fear, SCF = Stranger Communication Fear

2.4 Discussion

There are three discussion subsections in this study, with each focusing on one individual trait factor. Each subsection draws on the integration of results from the different statistical tests conducted which have been presented in the section prior to this.

2.4.1 Gender and Communication Apprehension

When gender was compared for the occurrence of high CA and non-high CA, male and female learners were not significantly different. This differs from the previous findings reported in the literature on adult learners. Jaasma (1997), Lang et al. (1998) and Loureiro et al. (2020) found that female learners were significantly more apprehensive than male learners. Additionally, my study showed that the non-statistical interaction effect between gender and CA levels on personality trait scores indicated that when the female and male learners were grouped according to their CA levels, their personality scores remain statistically similar across all groups. However, the regression analyses showed that being a female uniquely predicted the total CA score and SCF score. This study provides greater specificity for the way in which gender plays a role in CA in comparison to past studies that have examined the difference in CA levels across genders by comparing the total scores and variances in the mean scores across gender (e.g., Jaasma, 1997; Lang et al., 1998; Rafek et al., 2014). This study shows that although being female predicts higher CA scores, it does not necessarily mean that being female, learners would most likely fall under the “high CA” category.

General anxiety symptoms among female learners have been found to be more prevalent around mid-adolescence (i.e., age 14) as compared to male learners (Leikanger et al., 2012). One possible reason for the difference between the young 11-12 year old learners in this study and older learners from other studies, is that more advanced pubertal

development is also associated with higher levels of anxiety and anxiety symptoms (Carter et al., 2011; Rapee et al., 2022). This can be consolidated by the findings of Jaasma (1997) and Loureiro et al. (2020) that have found greater association of gender among adult learners, while gender of young learners were not associated with CA scores as demonstrated by Keaten et al. (1997) as well as Donovan and MacIntyre (2004). Thus driven by the findings of this study, it further highlights the importance to further examine and explore high CA phenomenon between male and female young learners in greater depth, to understand the way in which gender attributes influences and to what extent in has an influence on young learners' CA.

Specific to the development of CA, CA among adult learners is a stable trait compared to CA among young learners, but the CA experienced at a younger age may change according to their experiences and communication patterns and engagements in school and at home, as well as parent characteristics (Daly & Friedrich, 1981). Although the anxiety experienced among learners in primary school levels may lead to the continuity and development of the anxiety intensity, it does not necessarily lead to an increase in their anxiety levels and is also not influenced by gender traits (Gullone et al., 2001), as their anxiety may also be mitigated by home environment. This signifies the importance of future research to examine gender associations on CA across different age groups.

2.4.2 Ethnicity and Communication Apprehension

Differences in the occurrence of high CA and non-high CA based on ethnicity were not found, and ethnicity together with CA levels were found to not have an effect on the personality score. This contradicted the findings of LaRochelle and Karpinski (2016) and Neuliep et al. (2003) which observed differences in the CA experienced based on the different ethnic groups in their respective studies. For instance, LaRochelle and Karpinski

(2016) also found that White and Asian learners in the United States of America reported significantly higher CA than the African American learners. Similarly, Neuliep et al. (2003) reported that Japanese learners had significantly higher CA than American learners in their study. In contrast, Coetzee et al. (2014) observed no significant difference in CA among different ethnic learners (i.e., African, White, and Indian) in the South African context.

Although the frequency of occurrence of the high and non-high CA groups across ethnicities were not significant, the Indian ethnic group, together with personality traits, contributed as predictors to the three subdimensions of CA i.e., CCF, GCF, SCF. An intriguing finding was that Indian learners did not predict the scores of CA subdimensions in the same direction. Being Indian predicted low CCF scores but predicted high GCF and SCF scores, and it is noteworthy that although they were significant, the effect sizes were small. Interestingly, only the Indian ethnic group had significantly higher openness mean score, and although not significant, the Indian ethnic group also had comparatively higher extraversion mean score than the other ethnic groups. This highlights that Indian ethnic group's personality may have mitigated CA in the classroom context. In addition, specific to Indian ethnic learners in Malaysia, they have been found to have higher levels of self-efficacy in their ability to communicate in English (Idrus & Salleh, 2008; Mahyuddin et al., 2006) and more positive attitude towards English language and learning the language (Abdullah & Wong, 2006) in comparison to Malay and Chinese learners. Therefore, this may explain the reason in which Indian learners negatively predicted CCF, as they may have greater comfort and confidence in communicating in the classrooms, thus lower anxiety levels.

Although the findings of this study on the association of ethnicity with young learners' CA have been somewhat inconclusive, there is also a possibility that cultural influence contributes to differentiated influence in different age groups. Keaten et al. (1997) found that Japanese learners in grades 4-6, had significantly higher CA than American

learners of the same age, but it was the opposite for leaners in grades 10-12. Pryor et al. (2005) and Coetzee et al. (2014) argued that there is a need to extend the understanding and body of knowledge of the way in which culture influences CA. Thus, there needs to be further exploration on how the ethnicity of Malaysian learners influences their CA, and more specifically what attributes of Indian ethnic learners contribute to the significant prediction of CA as found in this study.

2.4.3 Personality and Communication Apprehension

In this present study, there were significant differences in all five personality scores as high CA learners had significantly lower extraversion, openness, agreeableness, conscientiousness, and higher neuroticism scores. While past findings consistently showed that high extraversion and low neuroticism are attributes of high CA (Hsu, 2004; Jung and McCroskey, 2004; MacIntyre & MacKay, 2019; Neuliep et al., 2003), this study broadened the personality attributes of high CA to high openness, conscientiousness, and agreeableness. The significant association with conscientiousness and agreeableness personality traits contradict the findings of Jin-Young (2015), which found that conscientiousness and agreeableness were not significantly correlated with CA. Although the findings of this present study observed only a small effect size for the differences of conscientiousness and agreeableness personality traits between high CA and non-high CA learners, nonetheless, it is important to note that differences did surface between all five personality traits and the CA levels of young learners. A possible explanation for the differences in the findings of this study and the past study is the age of the participants as past studies have examined the associations of personality traits with CA among adult learners. It has been suggested that young learners' traits are not stable as they have a tendency to become more agreeable and conscientious as they grow older (Lamb et al., 2002). Therefore the findings of this study

implies that the personality traits of young learners' particularly during primary school levels play a role in their CA, which is suggestive that CA among young learners is beyond the communibiology paradigm that postulates CA to be a blend of extraversion and neuroticism.

In the prediction of CA scores, this present study found that openness, extraversion, and neuroticism personality traits strongly predicted CA scores. This supports the findings of Neuliep et al. (2003) and MacIntyre and MacKay (2019), which found that extraversion and neuroticism were significant predictors of CA. As vast majority of studies have given much emphasis to extraversion and neuroticism (e.g. Hsu, 2004; Jung & McCroskey, 2004; Neuliep et al., 2003), this study adds to the current knowledge that the openness trait is also a significant predictor of CA. More specifically, in this present study, extraversion and openness personality scores negatively predicted total CA, CCF, GCF, while neuroticism score positively predicted total CA, GCF, SCF.

Specific to neuroticism, a trait that represents negative emotions such as feeling anxious, nervous, and tense, did not predict learners' fear of communicating in the classroom (CCF). Based on a comparison of the various communicative contexts, it may be asserted that the classroom environment is a 'safe' place for learners (Bucholz & Sheffler, 2009; Holley & Steiner, 2005). In line with that, the findings of this study suggest that learners' negative traits do not play a vital role in the classroom specific anxiety. This is indicative that rather than learners' neuroticism trait, the classroom environment may possibly mitigate the development of CA among learners, and therefore it may be argued that the social context in which the teacher creates in the classroom has an influence on learners' anxiety (Young, 1991). When the classroom environment is filled with negative evaluations, learners may refrain from interacting (Carabeo & Juanillas, 2022).

In addition, on the other end of the context continuum, it may be viewed that the stranger context involves a considerable amount of uncertainty (Gudykunst & Nishida, 2001),

and interestingly, neuroticism was the only personality trait that was found to be a significant predictor of learners' fear of communicating with strangers, SCF. Communicating with strangers particularly involves uncertainty and as such learners often avoid interacting with strangers as a results of both uncertainty and anxiety experiences (Duronto et al., 2005). Thus it is indicative that in a highly unfamiliar context, learners' with dominant neuroticism would likely be influenced by their negative trait for the interaction with individuals with whom they are unfamiliar.

Although past studies that have found significant associations of the more positive traits i.e., extraversion and openness, with learners' CA (e.g., Jin-Young, 2015; Sloan & Slane, 1990), the findings of this study imply that the more positive traits do not have a great influence in the unfamiliar and unsafe contexts, as their negative trait has a greater influence. As extraversion and openness is reflective of learners' energetic approach towards the social world as well as the learners' openness to experiences (John et al., 2008), it can be asserted based on the findings of this study that these positive traits only mitigates learners' CA in familiar and safe contexts. As it was found that extraversion and openness were significant predictors in the more safe and familiar contexts, i.e., CCF and GCF, it explains why the Indian ethnicity, that had the highest mean scores for openness and extraversion negatively predicted CCF, as the qualities of the more positive traits can mitigate CA in safe and familiar contexts.

2.4.4 Implications

The findings of the study contribute theoretical and pedagogical implications to the field. Very few studies have examined young learners' CA despite the steep increase in levels of CA during upper primary schooling years, i.e., ten to twelve years old (Keaten et al., 1997; Watson et al., 1989) and the detrimental effects of CA towards their learning. To my

knowledge, this is the first study that had further extended the literature on young learners' CA in relation to personality traits.

Theoretically, although the temperamental perspective suggests that CA is a blend of extraversion and neuroticism personality traits (Beatty et al., 1998; Beatty & Pascual-Ferra, 2016), the findings of this study highlight the importance of individual trait factors such as gender, ethnicity, and the big five personality traits on learners' CA. This study highlights that the different types of CA (i.e., total CA, CCF, GCF, SCF) are predicted by not just one, but several traits, i.e., extraversion, openness, and neuroticism personality traits as well as Indian ethnicity and gender. These traits as predictors of CA suggests that in addition to the communibiology paradigm that suggests CA is blend of a neuroticism and introversion, and there are other factors that need to be considered. While it did not explain the depth of the associations, the findings of this study indicate that individual traits are important and future studies should take into account these three individual trait factors to further extend the knowledge on CA phenomenon among young learners, and not just focus on the neuroticism and extraversion personality traits.

Past studies have explored the CA of Malaysian learners and made some generalisations of the learners' CA levels as a whole (Tom et al. 2013) and based on gender (Rafek et al., 2014). However, as Malaysia is a multi-racial and multi-ethnic country, and as the findings of this study presented significant differences of CA experienced based on ethnicity, this study demonstrates that CA levels among learners within a multi-ethnic context should not be over generalised. Subsequently, this study proposes that future studies should consider the influence of learners' ethnic background and classroom environment when examining the CA phenomenon in a multi-ethnic context, like Malaysia.

The pedagogical implication of this present study is that teachers may use their observations of traits, particularly gender and personality of their learners, as a tool to

understand, identify and address the CA of young learners in the classroom. This is in line with the literature that has specifically suggested that teachers may use learners' personality as a tool to assist the teaching and learning process in the classroom (Dwyer & Cruz, 1998; Jin-Young, 2015). However, this study further adds that among young learners, female learners may not necessarily have a significantly higher CA as compared to male learners as indicated by past studies on adult learners (e.g., Donovan & MacIntyre, 2004; Jaasma, 1997; Loureiro et al., 2020), rather they may have a slight tendency to have higher CA scores than male learners. As such, this study highlights the importance for teachers to address young learners' CA, particularly young female learners, at an early age when the anxiety levels are not extreme, by providing support and implementing effective strategies to mitigate their CA.

Lastly, this study found that extraversion and openness negatively predicted GCF and CCF scores, while neuroticism positively predicted GCF and SCF scores. As learners' neuroticism traits such as general tendency of feeling anxious, nervous, sad, and tense, was not a significant predictor of classroom related CA, it suggests that the classroom environment may play a role, rather than individuals' personality trait. Especially for learners who are not extroverts or open to experiences, and teachers should create positive classroom environments to prevent the development of CA among young learners by creating a safe platform for learners to communicate in the classroom without the presence of negative judgements and criticisms that may add to their anxiety levels.

2.4.5 Limitations

A reflection of this present study led to the realisation of several limitations, which are noteworthy for future studies. Firstly, the use of a single method of data collection (i.e., survey with closed ended questions), inevitably restricted the attainment of in-depth understanding on the association of the individual trait factors with CA. There was also a lack

of triangulation of data which could have been obtained from other sources, i.e., teachers, parents or peers around them, as well as through direct observation of learners' during communication. Secondly, although this present study adopted existing established instruments for personality traits and CA, there were low internal consistencies of the instruments used as reported earlier in the methodology section of this chapter. Although this study adapted the PPTQ-C instrument and adopted the PRCF instrument, it is possible that the low interval consistencies may be specific to this particular context, thus future studies should examine the instrument in a wide range of contexts and proceed with caution with the use of these instruments. Thirdly, the sample distribution of this present study is also one of the limitations. Although a reasonable number of responses (i.e., 614 Malaysian primary school learners) was recorded and analysed in this present study, the study consisted of an uneven sample distribution, especially for the ethnicity variable. There were significantly more Malay and Indian learners who participated in this study compared to Chinese and mixed-ethnicity learners. It was planned during the early stages of this study that samples from all types of Malaysian national schools (i.e., national school, national-type Chinese school and national-type Tamil school) be obtained. However, as the schools were selected based on reasonable accessibility and the willingness of full cooperation from the learners, teachers and school administrative boards, it was unavoidable that each school consisted of different numbers of learner population and ethnicities.

2.4.6 Conclusion

In conclusion, the findings agreed that traits such as gender, ethnicity, and personality are associated with young learners' CA. There is however a variation in the trait-CA interconnection between young and adult learners. The findings of this study are summarised below:

(i) Although there was no difference in the occurrence of high CA vs non-high CA according to gender, and gender did not have an interaction effect with CA levels on personality traits, female was a significant predictor of total CA and stranger CA scores. This is indicative that although female learners predicted higher CA scores, it does not necessarily mean that female learners will be likely to be categorised as 'high CA' learners at this young age.

(ii) There was no difference in the occurrence of high CA vs non-high CA according to ethnicity, and ethnicity did not have an interaction effect with CA levels on personality traits. However, the Indian ethnic group negatively predicted classroom CA and positively predicted general CA (GCF) and stranger CA (SCF) scores.

(iii) Although all five personality trait scores (i.e. extraversion, openness, agreeableness, conscientiousness, and neuroticism) between high CA and non-high CA learners were significantly different, three personality traits in particular (i.e. extraversion, openness, and neuroticism) were predictors of CA scores. Extraversion and openness negatively predicted total CA, classroom CA, general CA, while neuroticism positively predicted total CA, general CA, stranger CA.

The findings of this present study were able to holistically contribute to the existing knowledge on CA phenomenon as this study has extended the significant associations of personality traits to young learners' CA. Thus, to further strengthen the knowledge on traits of learners gained from this study, the following studies in this thesis are conducted to obtain a more in-depth understanding of CA as well as address some of the limitations of this present study. The next two chapters (Study 2 and Study 3) predominantly explores learners' behaviours in relation to high CA and low CA, as well as learners' personality traits.

CHAPTER THREE: STUDY 2 - BEHAVIOURS OF HIGH COMMUNICATION APPREHENSION LEARNERS

In this chapter, I present Study 2, an exploration of the behaviours of young learners with high CA. Unique behavioural manifestations have been identified across different types of anxieties such as social anxiety, language anxiety, and speaking anxiety (Heerey & Kring, 2007; Gallego et al., 2022; Gregersen, 2005). Specific to CA, as a result of one's fear or anxiety in relation to communication with others (McCroskey, 1970), individuals exhibit a range of behaviours (Bodie, 2010; Byrne et al., 2012; McCroskey, 1997) such as fidgeting, rigid postures and shorter gaze. Findings from the literature have revealed similarities in behaviours among adult learners with high CA such as shorter gaze and communication withdrawal (Maher & King, 2020; Zhiping & Paramasivam, 2013), and individual differences in the intensity, frequency, and duration of CA behaviours (e.g., Kelly, 1982; McCroskey, 1997). However there is a lack of evidence to understand the behaviours of young learners' with CA.

Limited evidence has shown that the general manifestations and intensities of anxieties have been found to differ across age (Beesdo et al., 2009; Rao et al., 2007). A study by Rao et al. (2007) on the comparison of anxiety among children and adolescents revealed that adolescents displayed a broader pattern of avoidance and fear. In addition, it has also been demonstrated that young individuals have a tendency to display more behavioural manifestations, while manifestations specific to cognitive or conscious endorsement (e.g., recognising the experiences of anxiety) are more common among older individuals (Beesdo, et al. 2009; Siegel & Dickstein, 2012). Although there are differences in the frequency of manifestations of general anxieties across age, whether there are also differences in the behaviours specific to CA is unclear. The behaviours of learners with CA that literature has

established were entirely based on adult learners in specific contexts such as public speaking and oral presentations (e.g., Gallego et al. 2022; Gregersen, 2005; Tian, 2019). As proposed by McCroskey (1970), CA applies to all communication contexts and therefore there is a need to extend the current CA knowledge of learners' interactions with their teachers. Thus, it is important to explore whether these behaviours specific to CA noted by past studies, are applicable to young individuals, particularly in the classroom learning contexts.

When it comes to examining anxieties of young individuals, the assessments are mainly exploratory in nature where various sources and procedures are involved such as self-reports, reports of relevant others, and behavioural assessments (Kendall & Ollendick, 2004). Upon obtaining self-reports on young individuals' anxieties, it is important to take their cognitive developmental stage into consideration and subsequently triangulate the assessments through third party reports e.g., parents, and teachers (Beesdo et al., 2009). As such, unlike adult individuals, sole reliance on self-reports may be deemed unreliable (Beesdo et al., 2009; Campbell & Rapee, 1996; Siegel & Dickstein, 2012). In order to accurately identify young individuals' anxieties, there is a need to triangulate young learners' self-reports with others' perspectives (e.g. teachers). Thus, this study explores the behaviours associated with young learners' CA through observations and teacher interviews in order to have a better understanding on behaviours that are more specific to younger age groups.

After establishing the relationships between traits and types of CA in the first study, this second study aimed to examine behaviours of Malaysian primary school learners with high CA when interacting with their teacher in English in the ESL classroom context. The behaviours that have been identified and selected for this study are verbal behaviours (i.e., less talk/silence and disfluency) and nonverbal behaviours (i.e., facial activity, body movement, and gaze). A multiple case study research design that utilised video observations,

interviews, as well as a survey were used, and five Malaysian primary school learners participated in this study.

3.1 Background

3.1.1 Behavioural Manifestations of Communication Apprehension

Behaviour has been an important part of human research (Marien et al., 2019) and has been used as a tool in understanding emotions (de Gelder, 2006). As defined by Furr (2009), behaviours are the "verbal utterances (excluding verbal reports in psychological assessment contexts) or movements that are potentially available to careful observers using normal sensory processes" (p.372). It is important to not only derive the meaning of the observed behaviours, but also contextualise the behaviours (Furr, 2009). According to Ekman and Friesen (1969), an individual's behaviour is meaningful when the repertoire and circumstance of behaviours, or how the behaviour contains or conveys information, is explored along with the observed behaviours. Specific to circumstances, human behaviours have been significantly attributed to experiences of specific emotions or feelings and anxieties (Baumeister et al., 2007; Friman et al., 1998). As such, the exploration of high CA behaviours among young learners should be contextualised in their actual learning environment and involve various methods, in order to accurately identify the behaviours that are contextualised in specific circumstances.

Awareness of the behavioural indicators of CA among learners is important. As anxiety specific to classroom contexts has negative implications on classroom participation (Allen & Bourhis, 1996; Tian, 2019), the lack of classroom participation subsequently may impede language learning (Tsou, 2005; Valiente et al., 2008). Thus, it is important to be able to identify highly anxious learners (Raykov & Martinelli, 2019). Although earlier studies have reported that observed behaviours are not accurate indicators of CA (Behnke et al.,

1987; Carrell & Wilmington, 1998), Gregersen (2007) found that with a more explicit awareness of anxiety-indicating behavioural cues, learners' levels of anxiety were more accurately identified. Thus, an understanding of the behaviours of young learners with CA in the Malaysian context would enable teachers to use the behavioural indicators as a tool in identifying CA among young learners.

Specific to CA, individuals experience sensations, and exhibit a range of behaviours as a result of their CA (Byrne et al., 2012; McCroskey, 1997). Research on CA has shown that verbal and non-verbal communication behaviours provide cues about an individual's CA (e.g. Cole & McCroskey, 2003; Gregersen, 2007; Mulac & Sherman, 1974). Through observation of an individual's posture, gesture, and body position, the levels of CA can be more accurately identified by an observer (Gregersen, 2007). Gregersen (2007) revealed that observers who were trained to understand specific anxiety indicating cues (i.e., bodily tension, body position, weight shift, gestures, self-touching, foot movements, and head-nodding) were able to accurately identify the levels of CA experienced by the learners. Thus, observable behaviours that distinguish learners with and without CA are important indicators that can be used by teachers to accurately identify learners' with high CA. The behavioural indicators as found in the literature, can be categorised as verbal and non-verbal behaviours.

3.1.1.1 Verbal Behaviours. Verbal behaviours associated with CA can be categorised into (i) talking less/remaining silent and (ii) disfluencies. These verbal behaviours are discussed in greater detail below.

3.1.1.1.1 Talking Less / Remaining Silent. As a result of high CA, it has been observed that learners often talk less and choose to remain silent in various communication contexts, including the classroom (Maher & King, 2020; Zhiping & Paramasivam, 2013) and public speaking (Gallego et al. 2022). Talking less or remaining silent, according to

McCroskey (1997) is a form of communication withdrawal, in which individuals withdraw from active participation in the particular communication situation and talking when it is only absolutely necessary. Specific to the classroom context, learners with high CA have greater tendencies to avoid speaking voluntarily, and chose to remain silent during classroom discussions and interactions (Tian, 2019; Zhiping & Paramasivam, 2013). Although choosing to remain silent or talking less than others may be viewed as an individual's shy behaviour, it is also important to understand that this verbal behaviour may also be a result of an individuals' internalised CA (McCroskey, 1997).

3.1.1.1.2 Disfluencies. Another verbal behaviour of high CA that past studies have reported is frequent vocalised pauses and disruptions during communication. These disfluencies include, halting, vocalised pauses, and speech blocks (Lewin et al., 1996; McCroskey, 1997; Mulac & Sherman, 1974). Vocalised pauses such as "you know" could be temporary disruptions due to self-talk or in preparation of speech production which is a reflection of individuals' language skills (Lewin et al., 1996). However frequent vocalised pauses could also be indications of anxiety in speaking. There are contradicting views on the significance of the disfluency role as behavioural cues of CA. Lewin et al. (1996) emphasised that pauses and disfluencies are important behaviours of individuals who are anxious about communicating as these behaviours were observed to be comparatively more frequent among highly anxious individuals than others. Similarly, Mulac and Sherman (1974) also emphasised verbal disfluencies in their multi-dimensional conceptualisation of CA behaviours. Although verbal disfluencies are one of the common behavioural cues of high CA (Lewin et al., 1996; Mulac & Sherman, 1974), it is also possible that these verbal disfluencies may be due to poor communication skills (McCroskey, 1997). However, there is

a time gap between these past findings and findings that are relevant to the current time, and there is a need to obtain a more current understanding of verbal disfluencies.

3.1.1.2 Non-Verbal Behaviours. Specific to non-verbal behaviours that are associated with high CA, I have categorised the non-verbal behaviours reported by past studies into (i) facial activity, (ii) body movement, and (iii) gaze. The non-verbal behaviours of CA are discussed below in accordance to the three specified categories.

3.1.1.2.1 Facial Activity. Individuals' facial expressions are known to exhibit a range of meanings in relation to one's emotion and feelings (Elliott & Jacobs, 2013). Facial expressions have been found to be one of the kinesic behaviours associated with high CA (Gregersen, 2005; Gregersen et al., 2017; Mulac & Sherman, 1974).

Specific to head nodding (i.e., series of consecutive up-down head motion), a study by Giannakakis et al. (2017) which was conducted in a lab setting found rapid head nods to be associated with higher anxiety levels. However, a study by Lindberg et al. (2021) which was also conducted in a lab setting, observed that greater frequency of head nods occurred during instances in which individuals do not feel anxious. A possible explanation for the contradicting findings by these two studies is the learners' were responding according to their content knowledge of the topic of interaction which may have played a role in the number of head nods (Thepsoonthorn et al., 2016). A study by Thepsoonthorn et al. (2016) which was conducted in an experiment based setup, found that higher frequency of head nods were more common in instances of presence of prior content knowledge of the discussed topic. Although prior content knowledge mediates the presence of head nods, it is unclear whether head nodding is a distinctive behaviour as a result of anxiety.

Rate of blinks and brow activities have also been studied in association to anxiety. Firstly, rate of blinks has been associated with high anxiety (Giannakakis et al., 2017;

Gregersen, 2005; Harrigan & O'Connell, 1996; Lindberg et al., 2021). Gregersen (2005) and Lindberg et al. (2021) found that high anxiety is associated with higher blinking rates as compared to lower anxiety. It may also be a result of higher cognitive processes, as Hirokawa et al. (2004) asserted that when learners were listening and responding to questions, their low blinking rates may be indicative of their cognitive processes (i.e., thinking) as well as attention. In contrast, high blinking rates have also been established to be positively associated with high emotional arousal (e.g., embarrassed, anxious) as an involuntary response (Ekman, 1992). As blinking behaviours have been found to be meaningful to one's cognitive processes and emotional arousal, this study explores learners' blinking rates during interaction with the teacher in the ESL classroom, and Bentivoglio's (1997) threshold of average blinking rate during a conversation, i.e., 26 blinks per minute, will be used in this study. Secondly, one study found that learners with high anxieties displayed specific brow activities, i.e. furrowed and raised brows, during interaction in the classroom (Gregersen et al., 2017).

In addition, a behaviour that has been explored but found to not be associated with learners' anxiety is smiling behaviour (Lindberg et al., 2021). However, an early study by Gregersen (2005) found that learners with low anxiety were engaged in prolonged smiles as compared to learners with high anxiety. It is important to note that smiling may have a distinct emotional meaning (Rashotte, 2002; Sert & Walsh, 2013). A learner may smile due to the lack of content knowledge on the discussed topic (Sert & Walsh, 2013) or while performing something enthusiastically (Rashotte, 2002). In addition, a learner may be just reciprocating other's smile (i.e., genuine reciprocation) or out of politeness (Heerey & Crossley, 2013). However, there are also individual factors that influence an individual's smile which includes the number of individuals and the age of individuals one is interacting with (Mehu & Dunbar, 2008). It is also possible that one may also be smiling to mask their

inner negative feelings and therefore it may not accurately represent their true feeling (Pitton et al., 1993; Zhiping & Paramasivam, 2013). Nonetheless, I view that it is important to explore smiling behaviours in relation to CA to further extend our understanding on whether smiling behaviour is associated with young learners.

In summary, it can be drawn that although facial activities have been associated with CA, it is important to take note of these occurrences in relation to the contexts in which the behaviours occur among learners with high CA.

3.1.1.2.2 Body Movement. There are specific body movement behaviours that have been identified to be associated with anxiety. Gregersen (2005) found that learners who were more anxious had more closed and rigid postures (e.g. closed body position, legs or ankles crossed, tense body position), and Lindberg et al. (2021) found that anxious individuals had a tendency to have higher self-adaption gestures and body shifts. Although these kinesics that are specific to body movements have been associated with high anxiety, it is important to note that body movements i.e., gestures specific to arm and hand movements, are integrative part of speech production (Wagner et al., 2014). Thus, it is important to observe and analyse behaviours associated with high CA along with the verbal utterances as observations of body movements alone may be meaningless (Banbury & Hebert 1992).

3.1.1.2.3 Gaze. Learners who are more anxious have been found to avoid making eye contact during communication (Gregersen, 2005; Lindberg et al., 2021; Zhiping & Paramasivam, 2013). However, there is a lack of understanding whether young learners with high CA will also display similar gaze behaviours. Although literature has demonstrated that gaze behaviours are significantly associated with CA, there are possible factors that may influence learners' gaze behaviours, such as prior knowledge on the topic of interaction

(Thepsoonthorn et al., 2016) and engagement in cognitive processes (Knapp et al., 2012; Richmond et al., 2012). Thus, in examining the gaze behaviours, it is important to also take into consideration these factors.

An overview of the past studies that have examined the specific behaviours (i.e., body movements, facial activities, and gaze) in relation to anxiety have been predominantly conducted on adult learners (e.g., Giannakakis et al., 2017; Gregersen, 2005; Gregersen et al., 2017; Harrigan & O'Connell, 1996; Lindberg et al., 2021) and only a few studies have examined secondary or high school learners (e.g., Sert & Jacknick, 2015; Sert & Walsh, 2013). As such, there is a lack of understanding on the CA-related behaviours of young learners. In addition, the most common method that past studies have employed in the exploration of these behaviours is through observation in experimental settings and not in real life contexts (e.g., Giannakakis et al., 2017; Hirokawa et al., 2004; Lindberg et al., 2021; Thepsoonthorn et al., 2016) as well as specific to the context of public speaking and oral examinations (e.g., Gregersen, 2005; Gregersen et al., 2017; Mulac & Sherman, 1974) but not teacher-learner interactions. Finally, the scarcity of research across decades makes it difficult to consolidate robust evidence through past studies as the behavioural indicators of CA.

The CA behaviours displayed by each learner may be uniquely attributed by the learners' traits, especially personality and the communication partner and situation. However, researchers have contributed to the identification of behavioural cues predominantly based on adult learners (e.g., Gregersen, 2007; Maher & King, 2020; Mulac & Sherman, 1974). Due to the lack of empirical consolidation of CA behaviours from multiple and continuous past findings of CA behaviours, it is necessary to unravel CA behaviours among young learners and be aware of the possible individual variations. Through the use of case study design, it allows for the broad exploration of learners behaviours in relation to CA and would provide

an understanding of individual differences. This will subsequently build the foundation of the development of future instruments, and cohort research designs for robust identification of CA behaviours specific to young learners in the classroom, and also provide a basis for teacher to identify CA among young learners. In addition, there is a lack of understanding on high CA behaviours of learners during interactions with the teacher in the classroom as past studies that explored classroom contexts have been on whole-class presentations, which are similar to public speaking. Therefore, based on the findings of this study, I will extend the understanding of CA behaviours to young learners' with high CA in the ESL classroom context. The following sub section, I will focus on CA specific to teacher-learner interactions.

3.1.2 Teacher-Learner Interaction in the Classroom

The nature of teacher-learner interactions in a language learning classroom is complex, with activities that can be categorised as meaning-focused and form-focused activities (Flyman-Mattsson, 1999; Lyster, 2002; Pianta et.al, 2012; Saeidi et al., 2012). Meaning-focused activities include the use of the target language in real-life situations and teachers usually do not correct the grammatical mistakes made by learners but focus on facilitating comprehension during classroom interaction (Flyman-Mattsson, 1999; Saeidi et al., 2012). Form-focused activities include instructions that focus on the grammatical structures of the language (Loewen, 2018). They provide learners with greater opportunities to communicate with control over already-acquired forms as it gives a platform to use the forms learnt, i.e., grammatical structures (Brown, 2016; Tajeddin & Kamali, 2020).

Regardless of the meaning-focused or form-focused activities and approaches implemented by teachers in language learning classrooms, teachers commonly use interaction strategies such as response affirmations reformulations, comments and request for

justifications, clarification and elaboration (Can & Daloglu, 2022; Hall & Walsh, 2002; Sawaluddin & Tajuddin, 2017). These strategies in the classroom interaction revolve around teacher eliciting learners' responses which has an influence on the language learning classroom (Hall & Walsh, 2002; Lyster, 2002). Specific to communication in the classroom contexts, teacher interaction strategies have been found to have both negative and positive impacts on learners' participation in classroom interactions (Farahian & Rezaee, 2012; Lee & Ng, 2009, Sert, 2019). For instance, while Lee & Ng (2009) found that facilitator-oriented strategy promote learner interactions in the classroom, Farahian and Rezaee (2012) found that the extensive use of closed questions without prompts led to lack of learner engagements in classroom interactions.

Among the different types of interaction strategies, teacher questions are commonly used in the classroom. In general, teachers' questions in the ESL/EFL classroom are widely established as essential in evoking learners' response and seeking information (Ho, 2005; Noor et al., 2012; Rachmawaty & Ariani, 2019). The type of questions asked directly influences learners vocabulary choices, sentence structures and length of responses. Closed questions have been found to be one of the most effective type of question in encouraging and eliciting responses from learners (Noor et al., 2012; Rachmawaty & Ariani, 2019). In contrast, open and referential questions have been found to produce longer responses, varied vocabulary and complex sentence structures (Erlinda & Dewi, 2014; Lee & Kinzie, 2012; Noor et al., 2012; Wright, 2016).

While the type of teacher questions affects learners' responses, Farahian and Rezaee (2012) as well as Hlatshwayo (2015) found that the type of questions asked by teachers can also contribute to learners' reluctance to interact in the classroom. They found that the use of more yes/no questions than open or referential questions, contributed to a lack of learner interaction in the classroom. Yes/no questions usually requires straightforward and limited

responses but open or referential questions requires learners to produce more complex and longer responses. Additionally, the way in which teachers respond to learners' answers through follow-up questions also play a role in promoting the learner engagements (Smith & Higgins, 2006). For instance, learners have a greater tendency to reciprocate during interactions with teachers when teachers provided prompts in a conversational and less institutionalised manner, rather than just asking clarification questions that require them to give more examples. While teachers' questions play an important role in the elicitation of learner responses, it may be argued that they may also have an effect on learners' CA.

The complexity of the use of questions in teacher-learners' interaction and learners' emotions is further influenced by learner factor, i.e., proficiency level, as it affects learners' participation in classroom interactions and activities (Farahian & Rezaee, 2012; Huang et al., 2017; Lee & Ng, 2009). Learners with lower language proficiency levels have comparatively lower participation in classroom interactions. Nevertheless, closed questions have been found to be helpful in encouraging learners with lower proficiency to respond to the questions asked by the teacher in the ESL classroom as they help initiate learner interactions (Noor et al., 2012). However, specific to CA, it is noteworthy that learners with high language proficiency may also experience CA. An early study by McCroskey et al. (1985) found that learners' proficiency failed to explain learners' overall anxiety experienced. McCroskey (1977) asserts that an individual's trait and may influence one's willingness to communicate and as a result, learners may withdraw from engaging in interactions. Thus indicating that even proficient learners may experience high CA as a result of their trait. As such, individual factors i.e., language proficiency and traits, are also considered along with the type of questions and answers in the ESL classroom in this present study.

In addition to language proficiency, higher levels of learners' anxiety also leads to lower participation in the classroom. Tian (2019) reported that highly anxious learners choose

to remain silent and not participate in classroom interactions as they fear making mistakes and receiving negative feedback from their peers. Similarly, Suleimenova (2013) found that learners with high CA experienced "freezing-up" moments which directly impacted their participation in classroom interactions. Furthermore, learners with higher levels of CA have greater feeling of uneasiness (Suleimenova, 2013), negative attitudes towards classroom interactions (Allen & Bourhis, 1996; Tian, 2019) and may be self-cautious of making mistakes during interactions (Gregersen, 2003). Thus, it may be argued that language proficiency and CA may lead to a cycle of lack of participation in classroom interactions, however, effective use of teacher questions may possibly facilitate learner engagements and subsequently break the cycle of lack of learner interactions.

As teacher questions play a significant role in the language learning classroom, it is important for teachers to be aware of the implications of their questioning strategies on learners' state of emotions and language learning process. With greater awareness of their learners' anxiety and effective questioning strategies, teachers would be able to help learners with high CA. In order to apply these strategies, teachers first need to understand CA and the behavioural manifestations of high CA. An exploration of the behavioural cues of CA during teacher-learner interactions in the classroom can contribute to the development of explicit knowledge of CA and eventually identify learners with indications of CA. As such, teachers will be able to apply appropriate strategies in reducing learners' CA if they are aware of the behavioural differences of highly anxious and non-anxious learners (Gregersen, 2005).

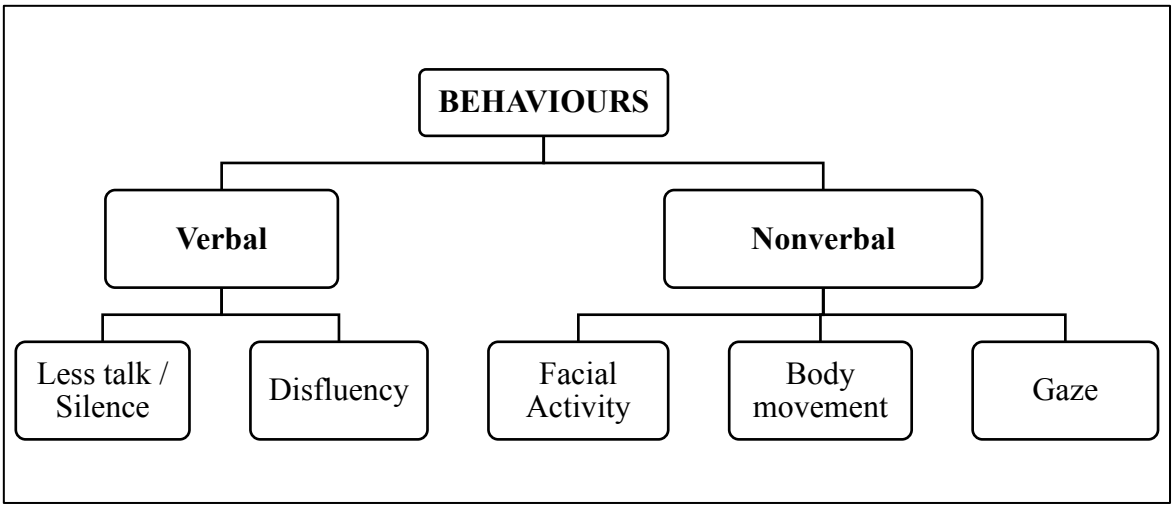
3.1.3 The Current Study

The main aim of this current study was to explore behaviours of Malaysian primary school learners with high CA when interacting with their English language teacher in in the ESL classroom context. Using the qualitative paradigm, the verbal and nonverbal behaviours

of five learners with high CA were described. Each learner was a case study. The verbal behaviours that were identified for investigation were: (i) less talk or silence, (ii) disfluency, while the nonverbal behaviours were: (i) facial activity, (ii) body movement and, (iii) gaze behaviours. Figure 3.1 illustrates the specific verbal and nonverbal behaviours that this present study set to explore through five high CA case studies

Figure 3.1

The Categorization of the Behaviours in this Present Study.



In line with the aim of this study, the research question that this present study seeks to answer is :

RQ 2: How do Malaysian primary school learners with high CA behave when answering teacher questions in English in the ESL classroom?

3.2 Method

3.2.1 Research Design

A case study design is “an empirical inquiry that investigates a contemporary phenomenon (the case) in depth and within real word context, especially when the boundaries

between phenomenon and context may not be clearly evident" (Yin, 2018, p. 16). According to Yin (2003), a case study design is suitable when researchers hope to "(a) define research broadly and not narrowly, (b) cover contextual or complex multivariate conditions and not just isolated variables, and (c) to rely on multiple and not singular sources of evidence" (p. xi). There are also three distinctive factors of key consideration that substantiates the compatibility of the research design with my research, and these factors are the research questions, the control over behavioural events and research carried out in real life context, as shown in Table 3.1.

Table 3.1

Key Factors Guiding The Use of Case Study Design

Key Factors		Present Study
Research question being posed	Case study design is the preferred research strategy when 'how', 'what' and 'why' questions are being asked	My research question are: • *How* do Malaysian primary school learners with high CA behave when answering teacher questions in English in the ESL classroom?
The extent of control over behavioural events	Case study design is valuable when the researcher has little or no control over the event	My research seeks to investigate the phenomenon of communication apprehension during one to one interaction with the teacher in the classroom without controlling the students' and teachers' behaviour or lesson.
Research is being carried out in the real life context	Case study is beneficial for contemporary events	My research is conducted within the real-life contemporary context of the language learning classroom in Malaysian primary schools.

The phenomenon among young learners in the classroom context provides insights to contextualised CA, however, it has not been clearly understood. This present case study investigates the phenomenon of high CA within real world context, the ESL classroom. This study used a collective case study research design to explore the behaviours of high CA learners in an ESL classroom from a qualitative paradigm. It utilises observation of the learners' behaviours when interacting with their respective teacher, and teacher and learner interviews. The observation was done from two perspectives, via a video record of the interaction and an eye-tracker. In each case of a young learner with high CA, their personality traits, behaviours, and responses to teacher's questions were analysed. The findings of this study will not only provide meaningful insights of CA behaviours during authentic teacher-learner interactions but will also serve as a foundation to develop future understanding of CA behaviours specific to young learners.

3.2.2 Participants

3.2.2.1 Case Selection. For this study, purposeful sampling was used to select participants who could "better contribute to the understanding of the research problem and fundamental phenomenon in the study" (Creswell, 2011, p. 125). In this study, the young learners with high CA were purposefully selected from the pool of 614 learners who completed the McCroskey's PRCF scale in Study 1 to contribute to the knowledge on behaviours that are associated with high CA learners. Cases were carefully selected so behaviours relevant to high CA could be understood from either contrasting results or similar results that corroborated with each other (Patton, 2002; Rowley, 2002).

In order to identify the learners who were perceive to have high CA, the case study learners for this present study were selected based on the outcome of the survey that was administered in Study 1. As detailed in Study 1, Mackiewicz and Cieciuch's (2016) PPTQ-C

and McCroskey et al.'s (1981) PRCF scale were used to obtain learners' self-perceived personality traits and CA levels respectively. Based on the CA scores, the potential learners for observation were identified. Refer to Appendix B for the survey administered.

Out of the 614 participants in Study 1, 100 learners were identified to have high CA based on the cut-off point of one standard deviation (i.e., 8.22) above the mean (i.e., 36.54) of the sample population (McCroskey et al, 1981; Watson et al, 1988). So learners scoring 45 and above were considered having high CA. From the 100 learners, the potential case study participants were further filtered based on the following factors; (i) consent from learners and their parents, (ii) not wearing spectacles in order to be able to wear an eye tracker, (iii) learners' willingness to wear the eye tracker, and (iv) willingness of teachers to participate in the study. Subsequently, 26 potential learners fulfilled the inclusion criteria, and the first five learners who consented to the study were subsequently selected as the case study participants. The sample size of five case studies adheres to Stake's (2005) emphasis that the researcher could be overwhelmed by data if there are more than ten to fifteen cases or the data may be limited if there are fewer than four cases.

3.2.2.2 Demographic Background of Participants. In order to protect the identity of the participants in this study, pseudonyms are used to identify each learner. Table 3.2 presents summary of the case study learners' demographic data. All five case study participants were learners around the ages of 11- 12 years old, and were in either Standard 5 or Standard 6. Due to the nature of convenience sampling, unintentionally, all five learner participants were males and of Indian and Malay ethnicities. Although gender was associated with CA in past studies, (Lang et al., 1998; Loureiro et al., 2020), my Study 1 did not find a significant difference in the occurrence of high CA and non-high CA according to gender and ethnicity. Thus, gender and ethnicity were not included as a factor for examination in this

subsequent study. Four of the case study learners were from national schools and one learner was from national-type Tamil school situated in Kuala Lumpur, Negeri Sembilan and Selangor. All five learners mainly did not speak English at home and with their friends in school. Further details of each learner are in the respective case descriptions in the results section (see Section 3.3).

Table 3.2

Demographic Data of Case Study Learner Participants (Study 2)

Case Study	Learner	Gender	Race	Year of Study	Language (Home)	Language (Friends)	School Type	School Location
1	Chandran	Male	Indian	6	Tamil	Tamil	National Type Tamil (Co-ed)	Semenyih (Selangor)
2	Siva	Male	Indian	5	Tamil	Tamil	National Type (Boys)	Seremban (Negeri Sembilan)
3	Ahmad	Male	Malay	5	Malay	Malay	National Type (Co-ed)	Seremban (Negeri Sembilan)
4	Faris	Male	Malay	5	Malay	Malay	National Type (Boys)	Sentul (Kuala Lumpur)
5	Rizwan	Male	Malay	5	Malay	Malay	National Type (Boys)	Sentul (Kuala Lumpur)

3.2.2.3 Consent of Participation. As the learners' English language teachers were interviewed and participated in the classroom observation, in addition to learners' assent, written consent was also obtained from the respective teachers of the learner participants prior to conducting the study.

3.2.3 Research Instruments

3.2.3.1 Eye Tracker. This study used the first generation Pupil Labs' eye tracker (Kassner et al., 2014) to track the gaze behaviours of learners during the communication tasks in real time (see Figure 3.2). Eye tracking is a method to assess an individual's eye movements with the aim that the researcher distinguishes both the order of eye movements from one direction to another and where an individual is looking at a specific time (Sungkur et al., 2016). The eye tracker consists of two cameras; a world view camera (120hz), which is fixated centrally and records the learner's view; and an eye camera (200hz), which records one of the learner's eye. The data were recorded with the Pupil Capture software version 1.10.12. However, due to the use of eye tracking glasses in this present study, brow movements are somewhat difficult to be observed. As such, only the visible brow movements that were not obstructed by the eye tracking glasses were included in the analysis.

Figure 3.2

Pupil Labs' Mobile Eye Tracking Headset (Pupil Labs, 2019)



3.2.3.1.1 Pilot Study for the Eye Tracker: Phase One. The pilot study for the eye tracker was conducted in two phases. The first phase of the pilot study for the eye tracker (i.e., preliminary pilot study for the equipment) focused on the technical aspects of the device and was conducted with two Standard 5 learners. This pilot study aimed to evaluate the (i) appropriate process of technical setup and the length of the time taken to put on the device, (ii) usability of the device on a young learners, and (iii) practical issues of getting a young learners to wear a mobile eye tracker in a regular classroom setting. The two participants were given the eye tracker to wear on two separate days respectively. Prior to getting the participants to put on the eye tracking device, I gave them a brief explanation on the equipment. In addition to that, the teachers were also given verbal explanation and written guidelines of the process and information about the use of the eye tracker in the classroom during the recording session as I was not present in the classroom. Once the lesson was over, I had an interview with the learners and the teacher individually. Some of the questions that were asked to the learner participants included "How did you feel wearing the eye tracker/glasses?", "Do you think wearing the glasses made it difficult for you to talk to you teacher during the lesson?", while the questions that the teachers were asked include "Do you

think your student behaved differently as he/she was given the eye tracker to wear?", "Do you think the eye tracker was a distraction in the classroom?".

The process of wearing and calibrating the eye tracking device took approximately 15 minutes and I found that it was a distraction for the rest of the learners in the classroom when the device was being set up on the learner. Thus, for the second phase of the pilot study, the entire process of setting up the equipment was done in a quiet environment, outside of the classroom. In addition, the teachers pointed out that there were slight changes in the learners' behaviour when they wore the device. As such, for the following pilot study, the learners were given the device to wear multiple times (i.e., at least three times) in order to create a sense of familiarity to eliminate any changes in behaviour caused by the use of the device. I also found that the practicality of using the eye tracker appeared to be hindered by the length of time taken for the learners to get used to the device. As a result, the learners in the second phase of the pilot study were given imitation eye tracking glasses to determine if the simulated glasses can be used to shorten the length of time.

3.2.3.1.2 Pilot Study for the Eye Tracker: Phase Two The second phase of the pilot study for the eye tracker was conducted based on the findings from the first phase and it was conducted with two Standard 6 learners. The aim of this pilot study is similar to the first phase which was to examine the (i) appropriate process of technical setup and the length of the time taken to put on the device, (ii) appropriateness in using the fake glasses as a replacement of the actual device in order to get them used to wearing the device, and (iii) practical issues of getting young learners to wear a mobile eye tracker in a regular classroom setting upon wearing the device several times. The two participants were given the imitative eye tracker to wear on for three consecutive days and after each day, I interviewed the learners individually. Some of the questions that were asked during the interview included

"How do you feel wearing the eye tracker/glasses?", "Did you realise any difference between these two glasses that you have worn?".

I found that the process of wearing the device was better as it was done outside of the classroom in comparison to the first phase when it was done in the classroom as the other learners were not present during the process of calibration. Thus, for the actual observation, the case study learners were given the device to wear out of the classroom. In addition, the participants claimed that they felt comfortable wearing the fake device throughout the lesson. They also highlighted that they felt even more comfortable wearing the eye tracker after the second time wearing it. However, when there was a gap in duration (i.e., weekend) learners once again reported that they were not comfortable wearing the glasses. Thus, it was decided that with a longer duration of the familiarisation period (i.e., approximately two weeks) was needed for the actual study in order to ensure that the device would not interfere with their actual behaviour. In regard to the appropriateness of the fake eye tracker, it was found that the learners did not realise the difference between the actual eye tracker and the fake eye tracker. As such, for the actual study, the imitative eye tracker was used as needed during the familiarisation period.

3.2.3.2 Learner Interview. Case study learner participants were interviewed with a set of semi-structured interview questions (Appendix F). The interview questions focused on their perspectives which were aimed to gather information on their CA experienced in the classroom following the participants' responses on the PRCF. The semi-structured interviews were used to triangulate the survey data and to provide insights into perceived CA specific to the face to face interaction with their English language teacher in the classroom. These semi-structured interviews were audio recorded and transcribed.

3.2.3.2.1 Pilot Study for Learner Interview. Two Malaysian primary school learners with high CA were involved in the pilot study. The aim of the pilot study was to evaluate the (i) appropriateness of the interview questions, (ii) logical organisation of the interview, and (iii) the length of the interview. Upon conducting individual interviews with the two participants, it was found that the interview questions were appropriate for this study. Specific to the logical organisation of the interview questions, changes were made based on the pilot study. For instance, the questions on general communicative behaviour was moved above the questions on their communication apprehension. Lastly, the length of the interviews was found to be appropriate as both the interviews took approximately 10 minutes.

3.2.3.3 Teacher Interview. Based on the observations of the teacher-learner interaction, semi-structured interviews were conducted with the respective English language teachers of the case study learners at the end of this study. The interview focused on teachers' perspectives which was aimed at obtaining information on case study learners' CA, personality, and behaviour. The interview questions were created based on the extensive literature review and based on the observations conducted in this study. The questions for the interview is in Appendix G and these questions served as a guide. The interview was audio recorded and then transcribed. Part of the interview questions in this semi-structured interviews were used for analysis in Study 4.

3.2.3.3.1 Pilot Study for Teacher Interview. Two Malaysian primary school teachers were involved in the pilot study. Similar to the pilot study for learner interview, the aim of the pilot study was to evaluate the (i) appropriateness of the interview questions, (ii) logical organisation of the interview, and (iii) the length of the interview. Upon conducting individual interviews with the two teacher participants, it was generally found that the

interviews went smoothly and the interview protocol was suitable for this study. In addition, specific to the interview questions that were relevant to this particular study, it was found that there was a good logical organisation of the interview questions. Lastly, the length of the interviews was found to be appropriate as mentioned by the teachers.

3.2.3.4 Observation. The classroom observation in this study provides a groundwork for understanding the behaviour of young learners with high CA when answering their teachers' questions in a day-to-day English language lesson. As defined by Heyman et al. (2014), behavioural observation is the "observation of people and events takes place in the settings in which they would naturally occur, and involves those who would naturally take part in them" (p. 1). In this present study, I took on a non-reactive role, the role in which the researcher does not intervene in the action that is being observed (Angrosino, 2007).

3.2.3.4.1 Observation Pilot Study. A pilot study for the observation was conducted with two English language teachers and two language learners from a primary school to evaluate the (i) clarity of the description and the instructions on the teachers' guideline, and (ii) appropriateness and feasibility of the observation in a natural ESL learning classroom which includes the duration of the observation as well as the technical setup of equipment. I first explained the classroom observation guideline to the teachers prior to the lesson. Two video cameras were used during the observation. One camera was placed on the teachers' table (in front of the classroom). Another smaller camera was place at the edge of a learners table. Both cameras were focused on the specific learners to capture their verbal and non-verbal behaviours. The cameras' positions were tested during four observation sessions (four different English language lessons). Once the lessons were over, I obtained feedback about the pilot participants' experiences by individually interviewing the learners and the teacher

Examples of the teacher interview questions included “Were the guidelines given clear to you?”, “In your opinion, what is an appropriate duration of interaction with one learner during a lesson?”. While the examples of learner interview questions include “How did you feel about the presence of cameras in the classroom?”, “While interacting with the teacher, were you distracted by the cameras?”.

Based on the interview, the teachers expressed that the guidelines for the communicative task was clear and detailed, therefore those instruments did not require further amendments. I found that the average duration of interaction between a teacher and a learner during a lesson is two minutes, and this was also indicated by the teachers to be a naturally occurring interaction in an ESL classroom. The two minutes of analysis is consistent with the duration of interaction used by analysis in past studies that have explored CA (e.g., Cartwright-Hatton et al., 2003; Lewin et al, 1996). Thus, for the actual observation, two minutes of interactions from each lesson were targeted for analysis. Specific to the process of technical setup, I found that the process of placing and adjusting the equipment in the classroom took approximately three minutes and it was a distraction for the rest of the learners in the classroom when the cameras was being set up on the learner. As such, for the actual observation, I placed the equipment in the classroom prior to the start of the lesson. In addition, I also found that with a prolonged exposure to equipment (i.e., after the third day), the learners were no longer affected or distracted by the presence of the camera in the classroom. Thus, case study learners were given sufficient exposure of approximately nine trials with the equipment prior to the actual observation.

3.2.3.4.2 Actual Observation. The interactions were recorded using two lenses, a video-recording that focused on the learners’ behaviours, and an eye-tracker that focused on the learners’ gaze behaviours. Prior to conducting the observation, the respective teachers

were given an observation guideline (see Appendix E). The observation guideline consisted of information on the intended classroom observation, video recording, eye tracking equipment, and the communicative task. The guideline was given to the teachers prior to the lessons to help the teachers to: (i) understand the purpose of the observation is, (ii) create interactions with the specific case study learners and, (iii) to ensure that recording of the equipment (i.e., cameras and eye tracker) was not obstructed during the recording of the lesson. Specific to the general guides on creating interactions with the specific case study learners, the teachers were instructed to naturally engage with the learners by asking them questions during the lesson.

3.2.3.5 Coding Schemes. For this study, two established coding schemes were used to code the teacher questions and student answers (Smit et al., 2021) as well as the learners' behaviours (Lindberg et al., 2021). The following subsections consist of details of the two selected coding schemes.

3.2.3.5.1 Questions and Answers in English Language Teaching (QAELT). Developed by Smit et al. (2021), the QAELT is a coding scheme for teacher questions and learner answers in an English language classroom. It comprises four types of mutually exclusive teacher questions i.e. non-elicitation, closed, clarification, and open-ended questions, which are based on the level of cognitive complexity. In addition, it also codes four types of mutually exclusive answers specified, i.e. none, simple, complete, and complex (Table 3.3) which are based on the complexity of learners' answers. Using Cohen's Kappa, Smit et al. (2021) reported good reliability, for the dimension teacher question (i.e., 0.77) and the learner answers the Cohens Kappa value was (i.e., 0.78). This coding scheme was

selected as it was specifically designed to observe teacher-learner interaction in English language learning classrooms based on the cognitive complexity of questions and answers.

The coding scheme defines each type of question and answer (see Appendix H). There are two phases of coding using QAELT coding procedure. In the first phase, all teacher questions and learner answers were transcribed. In the second phase of the coding, all teacher questions and learners responses were coded based on the four questions and four answers type as shown in Table 3.3. Based on the coding scheme, follow-up questions and turn-taking are coded as a new question.

Table 3.3

Summary of QAELT Coding Scheme Adopted from Smit et al. (2021)

TEACHER QUESTION	LEARNER ANSWER
Non-elicitation ▪ The teacher does not really want an answer Example: *"Can you speak in English?"*	**None** ▪ Learners do not answer Example: *"... (remains silent)"*
Closed ▪ The teacher expects a certain answer Example: "*Did you watch the show*?"	**Simple** ▪ The learner understands the question and gives a very short answer (1-3 words) Example: *"Sushi."*
Clarification ▪ The teacher wants to know if the student understands Example: *"To learn?"*	**Complete** ▪ The learner answers the question by giving information that can be derived from the lesson content Example: *"Because he has a small rocket."*

Open-ended	**Complex**
▪ The teacher wants to know what the student thinks Example: *"Okay why is it important Chandran to watch news?"*	▪ Responses are long (>1 sentence), extensive and/or learner adds a new perspective to the lesson Example: *"I have a Pitbull in my house. When I was sleeping every night, the dog will bark so loudly, everybody will be sleeping."*

*Note***.** The examples used here are all transcripts from this present thesis' data.

3.2.3.5.2 Behaviour Coding Scheme. The verbal and nonverbal behaviours were coded using Lindberg et al.'s (2021) behaviour coding scheme (Table 3.4). Although this coding scheme was used by Lindberg et al. (2021) on adult ESL learners (i.e., tertiary learners), it is highly relevant to the objectives of my study as it measures specific anxiety behaviours during interactions or conversations rather than oral presentations and public speaking. As there are no established coding schemes specifically designed for the behaviours of young learners with anxiety in the classroom context, this coding scheme was selected. The verbal behaviours coded included: (i) unfilled pauses which are silent pauses longer than 0.5 seconds within a sentence or phrase, (ii) filled pauses (e.g., uh, um), (iii) repetitions (i.e., repeating the same word or phrase), and (iv) repairs (i.e., self-corrections of pronunciation, grammar, or vocabulary). Based on the coding scheme, the disfluencies were coded categorically as absent or present. Lindberg et al. (2021) reported good reliability of this coding scheme i.e., 0.73, based on Cohen's Kappa statistics.

For the nonverbal behaviours, the behaviours that were coded include; ((i) facial activity (i.e., blink, nod, smile/laugh and brow movement), (ii) body movement (i.e., body shifts and self-adaption gestures) and (iii) gaze behaviours (i.e., gaze aversion, glance away and mutual gaze). The behaviours were either coded as binary (i.e., whether it occurred or did

not occur) or numeric (i.e., the number of times it occurred). Based on this coding scheme, smile/laugh, brow movement, body shift, self-adaption gesture, gaze aversion, glance away, and mutual gaze, are binary variables, while nod and blink are numeric variables. Lindberg et al (2021) reported that the reliability scores using Cohen's Kappa statistics for the body gestures (i.e. body shift, self-adaption gestures) were 0.81, for the facial gestures (i.e. brow movement, smile/laugh) were greater than .72 and for the gaze behaviours (i.e., gaze aversion, glance away, and mutual gaze) were greater than .74. Lindberg et al. (2021) used an eye tracker for better precision in coding of their participants' eye movement. This study uses the same method in coding the behaviours of learners' gaze using a mobile eye tracker.

Table 3.4

Summary of Behaviour Coding Scheme Adopted from Lindberg et al. (2021)

Category	Codes	Definition
Behaviour		
(i) Disfluency	Unfilled pause	Silent pauses longer than 0.5 seconds within a sentence or phrase e.g. "I just arrived here when I was… nineteen."
	Filled pause	Pauses filled within a sentence or phrase (e.g. uh, um) e.g. "Especially the Quebec government should hold a different uh biggest uh most important festival in Quebec."
	Repetition	Repeating the same word or phrase e.g. "We can we can call that like one major problem."
	Repair	Self-corrections of pronunciation, grammar, or vocabulary e.g. "Like let's say, when you are in higher – uh High School […]"

(ii) Facial activity	Blink	Amount of blinks (numeric)
	Nod	Amount of head nods (numeric)
	Smile/laugh	Smiling and/or laughing (binary)
	Brow movement	Raising or lowering of their eyebrows (binary)
(iii) Body movement	Body shift	Shifting position (while seated), leaning forwards or backwards (binary)
	Self-adaption gesture	Touching neck, scratching face, hair-twisting (binary)
(iv) Gaze	Gaze aversion	Never looks at partner (binary)
	Glance away	Brief gaze shift to the side, up, or down (binary)
	Mutual gaze	Participants are making eye contact (binary)

3.2.4 Data Collection and Analysis

3.2.4.1 Data Collection Procedure. Prior to the teacher-learner interaction observation, the learners were familiarised with the equipment for approximately one and a half to two weeks prior to the actual observation. The process and procedure during the familiarisation period were identical to the actual observation. The data that were analysed in this study was collected after the familiarisation period. The process of putting on the eye tracker took up approximately 10 minutes which also included the eye-camera calibration procedure. I also gave the learners specific instructions to ensure correct use of the eye tracker, i.e., (i) avoid touching the eye tracker, (ii) to immediately inform me if there were

any problems with the equipment. The learner then was sent back to the classroom to resume his or her lesson.

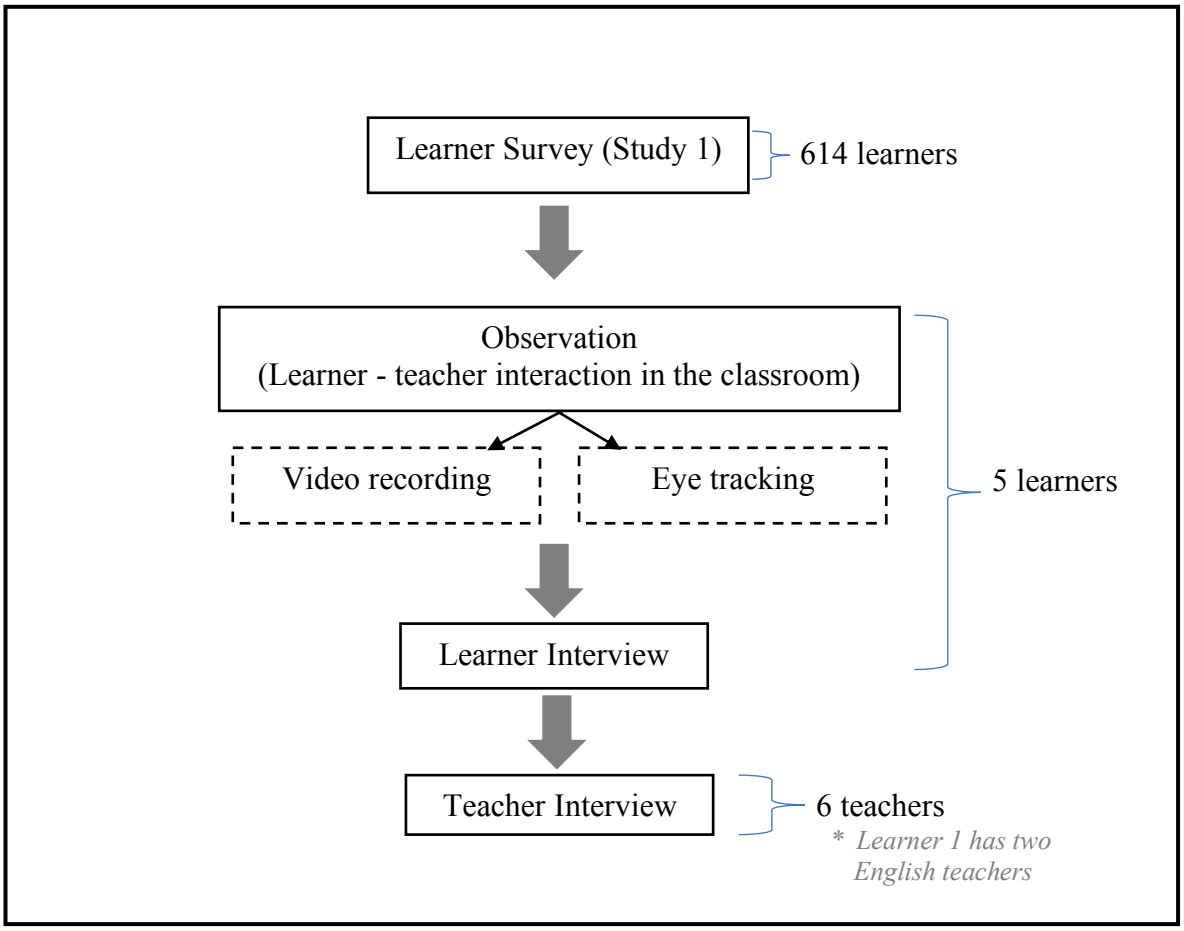
Prior to each lesson, I positioned the cameras at the front of the classroom and exited the room before the teacher started the lesson. Approximately 15 minutes into the lesson, I stopped the video recording and removed all the positioned cameras. I then proceeded to collect the eye tracker from the observed learner. After the lesson, the learner was then interviewed on their experience of using the eye tracker as well as on their one-to-one interaction with their teacher during the lesson.

Upon completion of classroom observation and learner interviews, the relevant English teachers were then interviewed several days after the observation at their preferred time and location. The teacher participants were also made aware that the interview will be audio recorded and later transcribed. The interview session with each teacher ranged from 45 minutes to 1 hour and 30 minutes.

Once the interviews were conducted, I transcribed the interviews and validated the interviews through member checking. Member checking was performed by asking the participants to check the interview transcripts in order to enhance the accuracy of the data (Birt et al., 2016). As such, the transcripts along with interviewee transcript approval form, were sent to the respective teacher participants. Appendix L contains the interviewee transcript approval form. The interviewee transcript approval form focused on (i) accuracy of the content, (ii) corrections to be made to the transcripts, and (iii) requests for removal of statements. The teacher participants were required to indicate their approval of the transcripts by stating yes or no. They were also provided opportunity to write down any specific statements to be removed or any other comments they wish to provide. Figure 3.3 illustrates the data collection procedure of this present study.

Figure 3.3

Data Collection Procedure



3.2.4.2 Data Analysis. For the interviews and teacher-learner interactions in the classroom, each of the utterances were timestamped and given an utterance number. As there are various data sources in this present study (i.e. teacher interview, learner interview, observation) there was a need to assign each utterance a specific code for reference purposes. The codes were given in the sequence of; (i) the event (e.g., teacher interview - TI, learner interview - LI, observation - O), (ii) the utterance number, (iii) participant code. Examples of the codes given for the utterances are elaborated in detail in Table 3.5. These codes are used throughout this study in reference to the specific transcripts (i.e., teacher interview, learner interview and observation transcripts).

Table 3.5

Interpretation of Reference Codes

Codes	Code	Interpretation	Example in Use
[TI1/83/T1]	TI1	Transcribed utterances during teacher interview	*He is more on the sensitive side, that is why he is scared to speak* [TI1/83/T1]
	83	Utterance number	
	T 1	The teacher's code (Teacher 1 – Ms Padmini)	
[LI1/90/L1]	LI1	Transcribed utterances during learner interview	*Because I never talk to the person before* [LI1/90/L1]
	90	Utterance number	
	L 1	The learner's code (Learner 1 – Chandran)	
[O4/86/L4]	O4	Transcribed utterances during the classroom observation	*To take uh from place time emergency* [O4/86/L4]
	86	Utterance number	
	L4	The learner's code (Learner 4 – Faris)	

Note. These reference codes are used throughout this research.

Parallel to the pilot cases, in the 15-minute video recording, the average time of interaction between the case study participants and their respective teachers was approximately two minutes (i.e., 120 seconds). Therefore, only these two minutes of interactions were coded and analysed. Specific to the instances in which utterances made by learners were in another language, the code switching occurrences are noted in this study as it is viewed to be relevant in a multilingual context like Malaysia (Arumugan et al., 2017; Nordin et al., 2013), the behaviours were not coded as it has been found that the kinesics (i.e., body movements) changes according to the language one speaks (Gursoy & Ozcan, 2018; Jensen & Emanuelsson, 2016; Pierson & Bond, 1982).

To establish the reliability of the coding of the behaviours as well as the questions and answers, 20% of the data (i.e., one case/learner) was given to a blinded coder. Prior to

analysing the behaviours of the learners based on the videos, the blinded coder was given the same set of instructions and guidelines which used by the main coder of this study on which are included in the coding schemes (see Appendix H). These instructions included the way in which values are given for each behaviour as well as questions and answers. Both the researcher and the coder first coded one case together. Once familiarised with the behavioural checklist, the blinded coder then proceeded to independently observe and rate one case. Cohen's Kappa test was used to check the inter-coder reliability. For the questions and answers using the Questions and Answers in English Language Teaching (QAELT) coding scheme, good reliability was obtained $\kappa = 0.83$. While for the behaviours using Lindberg et al.'s (2021) behaviour coding scheme, moderate to good reliability were obtained for the nonverbal behaviour (i.e., gaze – $\kappa = 0.62$, blink – $\kappa = 0.71$, nod – $\kappa = 0.64$, smile – $\kappa = 0.65$, body shift – $\kappa = 0.65$, self-adaption – $\kappa = 1.00$) while for all verbal behaviours perfect agreements were obtained (i.e., unfilled pause – $\kappa = 1.00$, filled pause – $\kappa = 1.00$, repair – $\kappa = 1.00$, repetition - $\kappa = 1.00$).

3.3 Results

3.3.1 High CA Case Study 1 – Chandran

3.3.1.1 Case Description. Chandran was a 12 year old male learner in a national type Tamil primary school. He spoke Tamil at home with his family and in school with his friends. Chandran's self-perceived CA score from the PRCF questionnaire was 50. For the subdimensions of CA, his mean scores were 3.60 for CCF, 3.80 for GCF and 3.00 for SCF, suggesting that he was generally anxious. In addition, during the interview he claimed that he was afraid to talk to strangers (i.e., "*Scared"* [LI1/86/L1], "*Because I never talk to the person before"* [LI1/90/L1]) and when people asks him his opinion (i.e., "*I am scared when people ask my opinion*" [LI1/101/L1]).

Both his English language teachers (i.e., Ms Padmini and Ms Menakshi) also perceived Chandran to have high CA when he was speaking English in the classroom, and they attributed his CA mainly to his low English language proficiency and lack of general knowledge.

> *Yes. He is usually very quiet in class. He talks in class with his friend, unnecessary topic not related to the lesson but when it come to the lesson's content then he will be apprehensive. He is very apprehensive.* [TI6/57/T6] … *I am assuming that Chandran has* communication apprehension *because he is less proficient in English*. [TI6/61/T6]…
>
> *Sometimes* [TI1/73/T1] … *Lack of knowledge on many topics and also the poor command of the language la* [TI1/77/T1]

Based on the PPTQ-C survey, Chandran's most dominant personality traits based on the survey scores were agreeableness, conscientiousness, and openness trait (see Appendix I). However, both his teachers' disagreed and shared that Chandran showed behaviours that did not match the openness trait but more rule bound and cautious. In addition, both of Chandran's teachers perceived him to be emotionally sensitive, vulnerable and a nervous learner who did not take criticisms well:

> *He is a bit on the shy type, more controlled.* [TI6/72/T6] … *He is the type who is a bit sensitive ... He is not so open to comments and criticisms ... he takes things to heart.* [TI6/74/T6]
>
> *He doesn't move around and talk to everyone, in other words he is not overly friendly.* [TI1/85/T1] … *He more on the sensitive side, that is why he is scared to speak.* [TI1/83/T1]

His teachers also mentioned that he usually did not volunteer to communicate and speak in class i.e., "*But when it comes to speaking about that particular thing, he will not like volunteer very easily and all"* [TI1/81/T1]. Additionally, although his academic performance was average and he had poor command of English language, he tried to give his best effort.

> *Chandran is like how to say ah, he he's just average I will say that okay. In the classroom he is always trying, he tries his best*

> *to do like if I ask him to do something, he will try his best to do it* [TI1/81/T1]…

Chandran's teachers' account of his personality corroborated with his agreeableness and conscientiousness scores. Factors that were possibly associated with high CA included (i) low English language proficiency, (ii) lack of general knowledge and (iii) his shy and reserved personality traits.

3.3.1.2 Responses to Teacher's Questions. The activity of the lesson observed was writing an email on the advantages and disadvantages of watching television. It is noteworthy that this topic appears to be non-authentic as this task may most likely not take place in real-life context and therefore it may have affected Chandran's response as well as the discussion in the classroom. The teacher, Ms. Padmini facilitated an open class discussion by asking learners for their opinions on the advantages and disadvantages of watching television, as well as on how to write an email. Throughout the lesson, Chandran did not voluntarily share his views and opinions on the topic unless his teacher specifically asked him questions. Chandran responded twice in Tamil but was then instructed to speak in English. His Tamil responses were excluded from the analysis and only his responses in English were coded and reported in this study.

Teacher Padmini: *Okay Chandran, what is the meaning of advantage and disadvantage?* [O1/2/T1]
Chandran: *(answers in Tamil)* [O1/3/L1]
Teacher Padmini: *Tell in English la* [O1/4/T1]
Chandran: *Good thing and bad thing* [O1/5/L1]
Teacher Padmini: *Okay why is it important Chandran to watch news?* [O1/7/T1]
Chandran: *(remains silent)* [O1/8/L1]

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 14 question and answer pairs in English. The

total accumulated duration of interaction (i.e., 14 question and answer pairs) between Chandran and his teacher that was used for analysis was 117 seconds.

An overview of Chandran's type of responses shows that Chandran's answers were mostly simple (i.e., eight questions), which consisted of utterances with approximately three words and below. He managed to produce three complete answers that consisted of seven words, e.g., "*Sit in one place and be lazy"* [O1/63/L1], and he did not respond to three questions. The limited answers produced by Chandran may be due to Ms Padmini's questioning strategies (See Appendix J for the frequency counts of the type of questions and answers during the interaction), asking Chandran open questions that required higher order thinking (e.g., "*Okay why is it important Chandran to watch news?*" [O1/7/T1]), she followed up with clarification and closed questions. The clarification questions that were asked by the teacher were merely to ask Chandran to give more examples without providing Chandran with specific prompts, e.g., "*Some more?"* [O1/16/T1]. Chandran did not respond to the open questions and produced short utterances consisting of just a few words to the closed-ended questions. Immediately after the observation, Chandran was interviewed and he shared that he felt nervous (i.e., "*Uhm tension*" [LI1/123/L1]) as he usually does when he interacts with Ms Padmini in the classroom (i.e., "*Do you normally feel nervous when she's talking to you in the classroom?"* [LI1/126/R] "*Yes*" [LI1/127/L1]).

3.3.1.3 Behaviours During Classroom Interaction. It was observed that Chandran appeared to be fidgeting more when he was responding in English in comparison to when he was responding in Tamil. A review of the 117 seconds of interaction in English showed that Chandran fidgeted with a pencil and an eraser almost the entire time i.e., 10 out of 14 question and answer pairs. This parallels his teacher's observation of his communicative behaviour in the classroom, in which she mentioned that he is always fidgeting, i.e., "*Always*

fidgety, and like you know, you know when you're nervous how you do it, he is always like that" [TI1/118/T1]). Self-adaption behaviours were only shown once, just before answering a question.

In addition, he also did not create much eye contact with Ms Padmini when she was giving general instructions and conducting the lesson, instead he often looked down. The lack of eye contact was further confirmed by his teacher, i.e., "*You know, he will like when he's even talking to me, he won't look and he will look away"* [TI1/118/T1]. The glance away and gaze aversion behaviours were observed not just when he appeared to be thinking of his answers, but when his teacher was asking him questions and when he responded to the teachers questions. Chandran's instinctive behaviour to withdraw or move his gaze away from his teacher has been indicated to be a result of high anxiety (Gregersen, 2005; Zhiping & Paramasivam, 2013).

Specific to Chandran's facial activities, it was observed that in five instances when Ms Padmini called his name or asked him a question, he smiled while thinking and when responding to her. The smiles were produced in response to the interaction initiated by the teacher but have occurred continuously throughout the interaction. Smiling behaviours have been reported as indicative of masking inner feeling, such as anxiety (Zhiping & Paramasivam, 2013).

Another prominent facial activity observed is high frequency of blinking. When Ms Padmini asked him a question to obtain his opinion (i.e., *"Okay why is it important to watch the news?"* [O1/7/T1], and he did not respond "*(remains silent)*" [O1/8/L1], the observed blinking rate (i.e., five blinks within six seconds) was above Bentivoglio's (1997) average blinking rate during a conversation, i.e., 26 blinks per minute. High blinking rates are associated with high anxiety experienced (Gregersen, 2005; Lindberg et al., 2021).

Verbal behaviours, i.e., repetition, repair, filled pauses, and unfilled pause, were not observed in all of Chandran's utterances which may have been due to his high production of simple answers.

3.3.1.4 Summary of High CA Case Study 1 – Chandran. Chandran was a primary six learner who had high CA according to his English language teachers and the self-perceived CA survey. Although his most dominant personality trait was agreeableness (i.e., friendly and compassionate), he was also a shy and reserved learner. His English language proficiency was reported by his teachers to be low and during interaction with his teacher in the classroom, it was found that he had a tendency to respond in his mother tongue, i.e., Tamil. The behaviours that were frequently observed during interaction with his teacher in the classroom were; (i) fidget, (ii) smile, (iii) lack of eye contact i.e., glance away, and gaze aversion. CA related verbal behaviours were not obvious during this particular classroom observation, possibly due to his simple answers.

3.3.2 High CA Case Study 2– Siva

3.3.2.1 Case Description. Siva was an 11 year old male learner in a national primary school. Out of the three languages that he spoke (i.e., English, Malay and Tamil), he predominantly spoke the Tamil language at home with his family and in school with his friends. Siva's self-perceived CA score from the PRCF survey was 48. For the subdimensions of CA, i.e., CCF, GCF and SCF, Siva's mean scores were 4.00, 3.20 and 3.00 out of five respectively, and these scores implied that Siva was most anxious to communicate in the classroom context. During the interview with him, he claimed that he was sometimes nervous to talk to new people (i.e., " *Nervous, Sometimes"* [LI2/64/L2]) and a little bit nervous when someone asked him questions (i.e., "*A little bit"* [LI2/68/L2]) because some questions may be

hard for him (i.e., "*Because some questions are tough and some questions are easy"* [LI2/70/L2]). His interview responses implied that difficult questions asked may increase his level of anxiety.

His English language teacher, Ms Ooi, also perceived Siva to be a learner with high CA when communicating using the English language in the classroom. "*I think he has communication apprehension because every time I approach him or call him in the class, he tries to avoid and takes some time for him to answer …* " [TI2/45/T2].

Specific to his personality traits, based on the survey, Siva's most dominant personality domain was agreeableness with a score of 15 out of 15. It is then followed by extraversion and conscientiousness with 11 out of 15 for both domains. However, his teacher had contradicting views on Siva' personality traits and reported that he appeared reserved, difficult, detached, rule-bound, cautious, efficient, organised, sensitive, and nervous (see Appendix I). In addition, according to his teacher, he was an introvert and an observant learner who did not mingle much with others around him. "*Siva, is also an introvert person, he doesn't mix much with other, only with his particular group of friends, but Siva, is observant, he won't talk much unless he needs to say something, he is that kind of child"* [TI2/51/T2]. Siva's teacher also stated that although he does not perform well in his written work, he will still attempt to do it. "*Siva is not so good in his written work, but he will try"* [TI2/45/T2].

Based on perspectives of both the teacher and learner, Siva displayed the characteristics of generally high CA, especially in the classroom. However, his personality trait scores did not corroborate his teacher's account of his personality traits. Thus, apart from being asked difficult questions, the factors that may have led to Siva's high CA was unclear.

3.3.2.2 Responses to Teacher's Questions. The activity of the observed lesson was on writing an essay on real life heroes. The teacher, Ms. Ooi first played a short video clip on real life heroes, and then facilitated an open class discussion by asking learners for their favourite real life heroes. Throughout the lesson, just like Chandran, Siva did not voluntarily share his views and opinions on the topic unless his teacher specifically asked him questions. On several instances, when the teacher asked him questions, he did not respond, and remained silent.

Teacher Ooi:	*Why do you say your mother is a real life hero? Why do you consider she is a hero, heroine, a real life heroine, why?* [O2/49/T2]
Siva:	*She teach uh all childrens* [O2/46/L2]
Teacher Ooi:	*Some more? What else does she do?*[O2/50/T2]
Siva:	*(remains silent)* [O2/51/L2]
Teacher Ooi:	*What else does she do?* [O2/53/T2]
Siva:	*Uh (remains silent)* [O2/54/L2]

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 15 question and answer pairs in the 119 seconds of interaction observed. As Siva responded in English all the time, all his responses were analysed. Appendix J displays the frequency counts of the type of questions and answers during interaction with Ms Ooi.

An overview of Siva's type of answer responses shows that Siva mostly did not respond to the teacher's questions (i.e., eight questions without an answer). The rest of his answers were simple (i.e., seven questions), which consisted of utterances with approximately three words and below. Siva's limited or no response to Ms Ooi 's questions may be due to the questions' high level of cognitive demand (Lee & Kinzie, 2012). Ms Ooi asked Siva open questions e.g., "*Why Siva? Why do you think she is called a super hero? What kind of characteristic a super hero should have?*" [O2/67/T2]) which were inclined towards predictions and reasoning that required higher order thinking. Although there were

generally more clarification questions asked by Ms Ooi, these clarification questions were the follow-up questions to evoke more responses to the open questions. The sequence of questions directed to Siva were mainly (i) Open – Clarification – Clarification – Clarification– Clarification– Clarification; and (ii) Open – Clarification – Clarification. The clarification questions asked by Ms Ooi were predominantly to prompt Chandran to elaborate on his answers (e.g., "*What else does she do that you feel, not only teaching right? There must be something else that she does. What are the things that she does for the children?"* [O2/56/T2), while the other teachers in this study were focused on seeking clarification without prompting.

Immediately after the observation, Siva was interviewed and he shared that he felt anxious when he interacted with Ms Ooi during the observed lesson. He specifically stated that he felt nervous (i.e., "*Scared"* [LI2/99/L2]) as he did not understand some of the questions asked (i.e., "*Some questions I no understand"* [LI2/101/L2]).

3.3.2.3 Behaviours During Classroom Interaction. One of Siva's prominent behaviours during the interaction was his lack of eye contact. He had a tendency to glance away, most often to the side, when Ms Ooi was speaking and asking a general question to the entire class. He also was seen looking away during instances in which he was thinking of the answers to both general, and specific questions. His teacher noticed this, and in the interview, indicated that he does not create eye contact (i.e., "*Siva doesn't create eye contact.*[TI2/80/T2]"). Eye gaze withdrawal or aversion has been reported to be a result of high anxiety levels experienced (Gregersen, 2005; Zhiping & Paramasivam, 2013).

Specific to Siva's facial activities, it was also observed that Siva smiled and licked his lips often. Most of the time, he smiled whenever he did not know the answer. He was also observed to be smiling when he and Ms Ooi were talking about superheroes, and relating his

mother as his real life hero. In both instances, his smiling behaviour may indicate that he was enthusiastic as a result of the topic (Rashotte, 2002) as well as he did not know the answers to the questions (Sert & Jacknick, 2015). In relation to the behaviour of licking his lips, there were no patterns of occurrence that was observed, and it may have been out of habit as he randomly licked his lips.

Additionally, frequent blinking behaviour was observed when he did not answer the teacher's question. He made two to five blinks for each question-answer instances. For the first question that Ms Ooi asked Siva during the observed lesson, i.e., "*Do you know anybody Siva? Your your, maybe your family member, your cousin, your uncle, that is a policeman*. [O2/21/T2]", he blinked 5 times within 11 seconds, a rate above Bentivoglio, 1997)'s 26 blinks per minute, and related to high anxiety (Gregersen, 2005; Lindberg et al., 2021) when his teacher called upon his name specifically for him to answer the question.

For body movements, the only behaviour observed was Siva tapping his fingers. The finger-tapping behaviour was observed to have occurred sporadically, in four out of the fifteen question-answer instances throughout the duration of the observation, and three of the finger-tapping behaviour were observed when he did not respond to the teacher's question. Zhang et al. (2021) argued that finger tapping is a type of automatic behaviour when a learner is paying greater attention during the lesson. If the finger tapping behaviour was indicative of increased attention, then it was likely that Siva's lack of responses could also be associated with his need to think and process the questions asked by Ms Ooi. In addition, another prominent CA behaviour shown throughout the interaction was Siva's stiff posture. He sat straight up whenever he was interacting with Ms Ooi or whenever Ms Ooi called his name. This behaviour was further confirmed by Ms Ooi during the interview with her as she mentioned that he is usually very stiff, i.e., "*... stiff, frozen"* [TI2/104/T2].

Verbal behaviours, i.e., repetition, repair, and unfilled pause, were not observed in all of Siva's utterances, which may also have been due to his limited length of answers, whereby his longest answer contained four words, i.e., "*She teach 'uh' all childrens*" [O2/50/L2]. Based on this response, it can be seen that filled pause was observed to have occurred. The filled pause had occurred in the longest response (i.e., four words) that Siva produced during the observed interaction. As such, it is possible that verbal disfluencies were generally not observed in Siva's responses due to the type of the type of answers (i.e., none and simple answers) that Siva produced during this specific observation.

3.3.2.4 Summary of High CA Case Study 2 – Siva. Siva was a primary five learner who had high CA according to his English language teachers and the self-perceived CA survey. Ms Ooi reported that Siva had low English language proficiency. Based on the five personality traits, he and his teacher had contrasting views. The survey showed that Siva scored high for extraversion and agreeableness personality traits, while his teacher claimed Siva to be an introvert and an observant learner who did not mingle much with others. Siva shared that he was anxious when Ms Ooi asked him difficult questions. Upon further analysis, it was found that following a non-satisfactory answer to her higher order thinking question, Ms Ooi predominantly asked a series of clarification or closed questions, which resulted in no responses and prolonged silence from Siva. Specific to the nonverbal behaviours, the behaviours that were frequently observed during interaction with his teacher in the classroom were; (i) frequent blinks, (ii) smile, (iii) lack of eye contact and (iv) stiff body posture. There was only one verbal behaviour observed (i.e., filled pause) during this particular classroom observation.

3.3.3 High CA Case Study 3 – Ahmad

3.3.3.1 Case Description. Ahmad was an 11 year old male learner in a national primary school. He spoke Malay language at home with his family and in school with his friends**.** Specific to CA, Ahmad's self-perceived CA score based on the PRCF survey was 50. In addition, his specific CA mean scores were 2.80, 3.40 and 4.67 out of five for CCF, GCF and SCF respectively, suggesting that he was most anxious about communicating with strangers. In contrast to the survey results, during the interview with him, he claimed that he was usually not nervous when talking to others i.e., "*How do you feel when you are talking to a new person?"* [LI3/48/R], "*Calm*" [LI3/49/L3]). However, he may not have understood the questions clearly, due to his proficiency level in English language. This can be seen when the same question was asked twice with the use of a different word.

Interviewer:	*So do you feel nervous when you are talking to your teacher?* [LI3/65/R]
Ahmad:	*No* [LI3/66/L3]
Interviewer:	*No, okay but when you are interacting with your teacher do you feel nervous?* [LI3/67/R]
Ahmad:	*Yes* [LI3/68/L3]

During the interview with his English language teacher, Ms Nisha, she claimed that he had high CA (i.e., "*So do you think that Ahmad has communication apprehension?"* [LI3/108/R] "*Yes"* [LI3/109/T5]). Ms Nisha also highlighted that he needed to be prompted with questions in order for him to interact with her, i.e., "*I will have to, always like you know prompt him, ask him questions*" [I/113/T5]

Specific to personality traits, the survey results indicated that Ahmad's most dominant personality traits were conscientiousness (a score of 15/15) and openness (a score of 14/15). His agreeableness trait was the lowest as he scored 3/15. See Appendix I for the complete personality survey scores. These self-perceived personality traits, somewhat matched his teacher's perspective on his personality traits. According to Ms Nisha, he was efficient and

organised, which are the traits that reflect high conscientiousness, as well as difficult and detached which are the traits that reflect low agreeableness. However, in regard to his high openness score from the survey, his teacher had contradicting perceptions. To Ms Nisha, Ahmad was more rule-bound and cautious. Ms Nisha also mentioned that Ahmad was a very quiet learner who did not usually work with others in the class i.e., "*He is very quiet … seldom see him working or discussing with friends…"* [TI5/113/T5]. His teacher also reported that although he usually completed his work, he had low confidence in himself i.e., *"… when it comes to work, he does his work and homework. He has very low confidence. He thinks he can't but he actually can"* [TI5/119/T5]. It was also highlighted by Ms Nisha that Ahmad was emotionally sensitive.

> *You know, like, even among even among his friends, like even during the discussion or like, you know, whenever they're talking to each other and all, he can't really get into the group, you know, so even if if they just say one word or two, he will very fast he will just say ok 'saya tak nak' (I don't want), I don't want to be friends with you.* [TI5/123/T5]

Ahmad's teachers' account of his personality trait corroborated with his agreeableness and conscientiousness scores, but contradicted his openness score. Based on perspectives of both the teacher and learner, it can be summarised that Ahmad's classroom behaviours were consistent with those of high CA, although during the interview he mentioned that he was not anxious to communicate with others. It is noted that while being interviewed, he could be consciously conforming to positive responses, in line with his conscientiousness personality trait (Roccas et al., 2002). The factors that were possibly associated with his high CA include (i) low English language proficiency, (ii) lack of confidence and (iii) his emotional sensitivity trait.

3.3.3.2 Responses to Teacher's Questions. The activity of the observed lesson was on writing a letter about a country that they would like to visit. The teacher, Ms. Nisha

instructed the learners to conduct group discussions on which country they liked to visit and details of the country that they have individually read up on. Throughout the lesson, Ahmad did not voluntarily share his views and opinions on the topic unless his teacher specifically asked him questions. During the interaction with Ms Nisha, there were instances in which Ahmad remained silent and did not respond to the questions asked by Ms Nisha.

Ms Nisha:	*Figurines, what type of figurines do they have there?* [O3/12/T5]
Ahmad:	*(remains silent)* [O3/13/L3]
Ms Nisha:	*What what figurines, cartoons or any of specific figurines that you like?* [O3/14/T5]
Ahmad:	*(remains silent)* [O3/15/L3]

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 14 question and answer pairs in English that were recorded. Ahmad responded to all the questions in English, as such, all his responses were coded. The total accumulated duration of interaction (i.e., 14 question and answer pairs) between Ahmad and Ms Nisha that was used for this analysis was 120 seconds.

An overview of Ahmad's type of answer responses showed that Ahmad also mostly produced simple answers (i.e., nine questions), which consisted of utterances with approximately three words and below, and no response to the teacher's questions (i.e., five questions). Similar to Ms Padmini and Ms Ooi, Ms Nisha also asked open questions that required higher order thinking (e.g., "*Japan, okay why would you like to visit Japan?*. [O3/6/T5]"). Although there were generally more clarification and closed questions asked by Ms Nisha, these questions were the follow-up questions to evoke Ahmad's response to the open questions (e.g., (i) Open – Clarification – Clarification – Clarification– Clarification– Clarification; (ii) Open – Closed – Clarification – Clarification – Clarification – Closed – Closed).

The limited or no response produced by Ahmad to the questions asked by Ms Nisha may be due two specific reasons i.e.,(i) the type of questions (Erlinda & Dewi, 2014), (ii) a result of Ahmad's internalised CA, Ahmad chose to remain silent or talk less (Maher & King, 2020, McCroskey, 1997, Zhiping & Paramasivam, 2013).

Immediately after the observation, Ahmad was interviewed and he shared that he felt nervous (i.e., "*Nervous"* [LI3/102/L3]) as he did not know the answers to her questions (i.e., "*I don't know the answer"* [LI3/104/L3]). As such, the behaviours analysed in the following section reflects on Ahmad's behaviour during an instance in which he perceived to have experienced high CA. See Appendix J for the frequency counts for the type of questions and answers during interaction with the Ms Nisha.

3.3.3.3 Behaviours During Classroom Interaction. Unlike Chandran and Siva who averted their eye gaze as soon as they began interacting with their teachers, Ahmad managed to maintain eye contact when the teacher was asking the questions. However, when he was responding to the questions or when he was thinking of the answers, he glanced away often. He even looked at his friends after giving his answers, which may be reflective of his consciousness of his friends' reactions to his answers. The general lack of eye contact is further supported by Ms Nisha as she mentioned that he does not create eye contact, i.e., "*He, no eye contact, no eye contact first of all"* [TI5/160/T5].

In addition, it was also observed that he smiled often. Ahmad smiled when he didn't know the answers to the teacher's questions and even during several instances of answering the questions. When he did not respond to the teacher's questions his smiles were often followed by an obvious exhale while appearing to be uncomfortable. During these instances, his smiling behaviour may indicate that he did not know the answers to the questions (Sert &

Jacknick, 2015) and may have been trying to mask his inner feeling, i.e., anxiety, (Zhiping & Paramasivam, 2013).

Specific to body movements, he was observed to be shaking his legs almost the entire time. This parallels his teacher's observation of his communicative behaviour in the classroom, in which she mentioned that he usually fidgeted, swayed and feet shuffled (i.e., "*Does he usually have or demonstrate any of the following when he's communicating with you interacting with you in the class* [TI5/161/R] ... *fidgeting or swaying or feet shuffling?"* [TI5/163/R], "*Ah yes"* [T15/81/T5]). Fidgeting behaviours are associated with CA (e.g., Gregersen 2005; Mulac & Sherman, 1974). It was also observed that whenever Ms Nisha called his name or asked him a question, there was a slight body shift and he sat up straight throughout the interaction. Besides that, there were no body shift and self-adaption behaviours observed.

Out of the four verbal disfluencies, i.e., repetition, repair, filled pauses, and unfilled pauses, there was only one repetition observed. However, the lack of verbal disfluencies could be due to the simple or no responses that Ahmad produced. As such, conclusions on his verbal disfluencies cannot be drawn from the observed interaction. In addition, in line with his low confidence, it was also observed that Ahmad responded very softly and frequently looked at his friends upon answering questions. Ms Nisha had to repeat some questions as she could not hear him although she was standing right in front of him.

3.3.3.4 Summary of High CA Case Study 3 – Ahmad. Ahmad was a primary five learner who had high CA according to his English language teacher and the self-perceived CA survey. His English language proficiency was reported by his teacher to be low. Based on Ms Nisha's and Ahmad's perspectives, his most dominant personality trait was conscientiousness (i.e., efficient and organised), and Ms Nisha also claimed Ahmad to be an

emotionally sensitive and a very quiet learner who did not usually work with others in the class. There was disagreement specific to openness personality traits as the survey score for this domain was high while Ms Nisha perceived him to be rule-bound and cautious. During interaction with his teacher in the classroom, it was found that Ahmad had a tendency to respond in simple and short answers, and he also remained silent for some questions asked. Specific to the nonverbal behaviours, the behaviours that were frequently observed during the specific interactions with his teacher in the classroom were; (i) smile, (ii) glance away (iii) shaking of legs. There was only one verbal behaviour observed (i.e., repetition) during this particular classroom observation.

3.3.4 High CA Case Study 4 – Faris

3.3.4.1 Case Description. Faris was an 11 year old male learner in a national primary school. He spoke Malay at home and with his friends in school. His favourite subject was English as he found it easy to learn. Faris' self-perceived CA score from the PRCF survey was 46. His CA subdimension mean scores were 2.60, 3.20 and 4.67 for CCF, GCF and SCF respectively which indicated that he was most anxious about communicating with strangers. In line with the survey scores, he claimed that he was not usually nervous when interacting with someone new, but felt nervous communicating with strangers out of school due to his safety (i.e., *If in school no, but if outside I am scared*" [LI4/58/L4], "*If talking to stranger 'luar sekolah'(out of school), 'takut' (scared) strangers because 'takut mereka' (scared they) will kidnap I"* [LI4/60/L4]). He also stated that he was usually anxious when others asked him questions. According to his English language teacher, Mr Daniel, Faris' CA depends on the topic of interaction i.e., "*When it comes to Faris' communication apprehension, it depends on the topic or content as well as the difficulty level of the topic, the particular topic of that day ...*" [TI3/42/T3].

Based on the PPTQ-C survey, Faris' most dominant personality traits were agreeableness and conscientiousness at 15 out of 15 for both domains. It was followed by openness and extraversion at 11 out of 15 for both domains. Appendix I contains the complete scores of Faris' self-perceived personalities. Faris' self-reported personality traits (i.e., high extraversion, agreeableness, and openness) to a certain extent, matched his teachers' views on his personality. Mr Daniel described Faris as outgoing, friendly, compassionate, imaginative, curious. However, in relation to conscientiousness personality trait, Faris' self-perception did not match his teacher's perception as Mr Daniel claimed that Faris was more disorganised and careless. Apart from these specific personality facets, according to Mr Daniel, Faris was a sociable and open person i.e., "*He is a very happy go lucky boy, very open, sociable"* [TI3/45/T3]. His teacher also reported that Faris was emotionally sensitive in certain situations, especially towards teachers.

> *He is not sensitive with his friends, but he is sensitive when it comes to teachers. Once it happened to me, when he did something, I explained to him in a soft tone that he should be doing such things, and he got extremely emotional. So when it comes to teachers he is very soft and sensitive.* [TI3/47/T3]

Similar to Siva and Ahmad, the teachers' perceptions of Faris' personality traits somewhat contradicted Faris' personality trait scores (i.e., conscientiousness). Based on perspectives of both Mr Daniel's and Faris', it can be summarised that Faris displayed the traits of generally high CA in the classroom. However, his CA levels vary based on the topic of interaction. Several factors that possibly led to his high CA include (i) low English language proficiency, (ii) lack of general knowledge and (iii) his emotional sensitivity trait.

3.3.4.2 Responses to Teacher's Questions. The topic of the observed lesson was on the types of future transportation. This topic is in line with creating an open classroom discussion and promoting learner's imagination. The teacher, Mr Daniel, facilitated an open

class discussion by asking learners for their opinions on the types of transportation that may exist in future and also the advantages and disadvantages of teleportation. Throughout the lesson, Mr Daniel facilitated the discussion in dual language, i.e., English and Malay languages. It was observed that Faris participated in the discussion in three instances voluntarily but he was sharing his ideas in the Malay language. When Mr Daniel asked him questions in English, he struggled to respond in English due to his lack of proficiency.

Mr Daniel: *But, what is the disadvantage? (looks at Faris)* [O/106/T3]
Faris: *Uhm … we can lazy* [O/109/L4]
Mr Daniel: *Any other idea?* [O/117/T3]
Faris: *Ah "salah"(wrong) teleport* [O/119/L4]

Faris' tendency to code switch was corroborated by Mr Daniel's claim that Faris had a tendency to use dual language due to his lack of proficiency in the English language, i.e., *"It also depends on what he is trying to say, so if the words that he needs to use is in his head, he can explain, if not he will withdraw from communicating. He tends to use dual language"* [T13/41/T3]. In line with this, Faris responded thrice in Malay but his responses in Malay were excluded from the analysis and only his responses in English were coded and reported in this study.

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 11 question and answer pairs in English that were recorded. The total accumulated duration of interaction (i.e., 11 question and answer pairs) between Faris and his teacher that were used for analysis is 112 seconds. Appendix J consists of the frequency counts of the type of questions and answers during interaction with the Mr Daniel.

An overview of Faris' types of answer responses showed that just like the previous four learners, Faris mostly produced simple answers (i.e., six questions) which consisted of utterances with approximately three words and below, and no response to the teacher's

questions (i.e., three questions). The limited or no response produced by Faris to the questions asked by Mr Daniel may be due the type of questions that were asked by Mr Daniel. Unlike the other teachers who often began their series of questions with an open question, Mr Daniel asked Faris closed questions that most often required simple responses (e.g., "*Okay, what is a car?*. [O4/18/T3]"). Mr Danial also had the tendency to follow up his closed questions with two to four clarification questions e.g., Closed – Clarification – Clarification; (ii) Closed – Clarification – Clarification – Clarification – Clarification – Clarification).

Immediately after the observation, Faris was interviewed and he claimed that he felt anxious interacting with Mr Daniel during the observed lesson (i.e., "*When he started talking to me in class, I was nervous"* [LI4/90/L4]), especially when Mr Daniel specifically asked him questions and opinions (i.e., "*Because he was asking me questions and my opinion"* [LI4/92/L4]).

3.3.4.3 Behaviours During Classroom Interaction. A review of the 112 seconds interaction during the observed lesson revealed that Faris engaged in frequent self-adaption body movements, i.e., touching of lips, the entire time. As Faris admitted to feeling anxious during the interaction, those self-adaption behaviours may have been related to his anxiety level (Lindberg et al., 2021). In addition, it was also observed that he was frequently fidgeting (i.e., thrice) and shaking his legs (i.e. twice). This fidgeting behaviour that Faris engaged in was further confirmed by his teacher, as Mr Daniel mentioned that Faris fidgets often (i.e., "*Does he tend to fidget, sway, pace around, feet shuffle or shake?"* [TI3/80/R], "*Yes, yes he does"* [T13/81/T3]). In addition, body shifts were noted twice during the interaction, suggesting that at two specific instances, Faris may have experienced high anxiety arousal (Lindberg, et al., 2021). Due to his lack of English language proficiency, it

was also observed that when he was thinking of the answers, he used hand gestures to describe what he was attempting to answer.

Specific to gaze behaviours, Faris generally maintained eye contact with Mr Daniel when Mr Daniel asked questions and also when he was responding to those questions. However, he did engage in gaze aversion whenever he appeared to be thinking of the answers. According to Mr Daniel, Faris avoids eye contact when he is not familiar with the topic of discussion, i.e., "*Depending on the topic as mentioned before. He tries avoiding eye contact"* [TI3/73/T3].

Another prominent behaviour observed was smiling. During the instances in which Faris was unsure of his answers, he smiled, indicating that he had insufficient knowledge to answer the teacher's questions (Sert & Jacknick, 2015). Just like all other learners in this study, Faris also smiled each time Mr Daniel called upon him. As learners admitted to feeling anxious during the interactions, their smiles could be attempts to mask their anxieties (Zhiping & Paramasivam, 2013).

Apart from the smiling behaviour, another prominent facial activity observed was high frequency of blinking. When Mr Daniel asked him his opinion (i.e., *"But, what is the disadvantage?"* [O4/106/T3], and he responded "*Uhm we can lazy*" [O4/109/L4], the observed blinking rate (i.e., five blinks within nine seconds) was above Bentivoglio's (1997) average blinking rate during a conversation, i.e., 26 blinks per minute.

As for the verbal behaviours, during four separate answers, filled pause was observed, while unfilled pause and repetition were found to have occurred twice. Specific to the occurrence of such disfluencies, it has been demonstrated that learners' mental preparation may be influenced by their nervous state (Choi et al., 2015). In line with his lack of English language proficiency, it was also observed that when he was trying to respond in English, he experienced difficulty in identifying the correct words. In addition, when he was unsure of

his own answer, he spoke softly towards the end of his statements or answers. These verbal behaviours suggest that he may have experienced CA while interacting with the teacher in the classroom due to the lack of language proficiency. His specific behaviours were more prominent when he could not answer the teacher's questions.

3.3.4.4 Summary of High CA Case Study 4 – Faris. Faris was a primary five learner who had high CA according to his English language teacher and the self-perceived CA survey. His most dominant personality traits were openness and extraversion, Mr Daniel also claimed Faris to be emotionally sensitive in the classroom. Specific to conscientiousness personality trait, he and his teacher had contrasting views. The survey showed that Faris scored high for conscientiousness personality domain, his teacher claimed Faris to be disorganised and careless. His English language proficiency was reported by Mr Daniel to be low and during the interaction in the classroom, it was found that he had a tendency to respond in his mother tongue, i.e., Malay. In addition, during interaction with Mr Daniel, it was found that the most frequent type of answers that Faris engaged in were either simple or no answers. However, he did give two complete answers. Specific to the nonverbal behaviours, the behaviours that were frequently observed during interaction with his teacher in the classroom were; (i) smile, (ii) blinking, (iii) hand gestures, (iv) fidgeting and shaking of legs. There were three types of verbal behaviour observed (i.e., filled pause, unfilled pause and repetition) during this particular classroom observation.

3.3.5 High CA Case Study 5 – Rizwan

3.3.5.1 Case Description. Rizwan was an 11 year old male learner in a national primary school. Malay was the language he spoke at home with his family and in school with his friends. His self-perceived CA score from the PRCF was 47. In addition, the mean scores

for the CA subdimension, i.e., CCF, GCF and SCF, were 4.60, 2.20 and 4.00 out of five respectively, indicating that he was most anxious about communicating in the classroom followed by communicating with strangers. During the interview, he claimed that he was nervous to talk to new people, i.e., "*How do you feel when you are communicating with a new person?"* [L15/48/R], "*Nervous"* [LI5/49/L5].

In line with Rizwan's self-perception, his English language teacher, Ms Lina, also perceived Rizwan to be a learner with high CA when communicating using the English language in the classroom i.e., "*He has high communication apprehension"* [I/54/T3]. According to Ms Lina, he was not proficient in English (i.e., "*He is not good in English*" [I/56/T3]) and he had a tendency to not volunteer to answer the questions in the classroom as he did not have the confidence (i.e., "*He does not have the confidence. He won't raise his hands to answer questions, even when he knows the answer*" [I/56/T3]).

Rizwan's most dominant personality domain was conscientiousness at 13 out of 15, followed by agreeableness at 12 out of 15. However, according to his teacher, his agreeableness and conscientiousness traits were not entirely prominent (see Appendix I). For the conscientiousness trait, she claimed that he was neither organised and efficient, nor was he disorganised and careless (i.e., "*He is neither one. In the middle"* [TI4/84/T4]). In addition, she described Rizwan as not very friendly, but was close to his own circle of friends and he was more detached from others. *(i.e., "In the middle. He is not that friendly, but he is fine with his own friends. He is slightly more detached because he is not the person who mingles with everyone. He doesn't have many friends"* [TI4/88/T4]). She also mentioned that he was more of a quiet and an extremely emotionally sensitive learner i.e., "*He is very quiet in the classroom"* [I/67/T4], "*... he is very sensitive and he is like a cry baby. Whenever I scold him he will cry…"* [I/63/T4]. In relation to classwork, Ms Lina reported that Rizwan to

be lazy and often did not complete the given homework. She stated that this laziness trait has also been pointed out by Rizwan's father to her.

> *He doesn't do his homework also.* [I/63/T4] … *He has a brother in year three. When the father came and see me to the take the report card, the father is also comparing the two the two children. His siblings are okay, its Rizwan himself, so it's not because of the background because the father is quite strict with the children, it's he himself.* [I/65/T4]

Rizwan's teachers' account of his personality contradicted his agreeableness and conscientiousness scores. Based on perspectives of both the teacher and learner, it can be summarised that Rizwan displayed characteristics of high CA in the classroom. Several factors that may have led to his high level of CA include (i) low English language proficiency, and (ii) his detached and sensitive personality traits.

3.3.5.2 Responses to Teacher's Questions. The activity of the observed lesson was on a reading comprehension passage which focused on directions. Ms Lina discussed the passage and the questions relevant to the passage. Prior to the observed lesson, the activity was given to the learners to read and answer the reading comprehension questions. The lesson was focused on checking all the answers to the reading comprehension questions. Throughout the lesson, Ms Lina went through each question and randomly selected learners to share their answers. Based on the answers, she then asked relevant questions to ensure that the learners understood the content of the lesson.

It was observed that Rizwan did not voluntarily participate in the discussion. However, this may be due to the nature of the lesson, as it did not allow learners to freely share the answers, as Ms Lina specifically called upon learners to answer. Specific to the questions that Ms Lina had asked Rizwan, Rizwan responded to all the questions in English. However, none of the questions required him to share his opinion, he was only required to

merely share the answers for the reading comprehension questions. The following is an example of interaction between Rizwan and Ms Lina during the lesson.

Ms Lina: *Pashmina Shawl Centre is the furthest, okay how can you make a sentence?* [O5/36/T4]
Rizwan: *Pashmina Shawl Centre is the furthest from the school* [O5/37/L5]

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 10 question and answer pairs in English that were recorded. The total accumulated duration of interaction between Rizwan and his teacher that were used for analysis is 113 seconds. Appendix J consists the frequency counts of the type of questions and answers during interaction with the Ms Lina.

An overview of Rizwan's type of answer responses showed that Rizwan mostly produced simple answers (i.e., nine questions), which consisted of utterances with approximately three words and below, followed by no response to the teacher's questions (i.e., one question). The limited or no response produced by Rizwan may be due the type of questions (Erlinda & Dewi, 2014) that were asked by Ms Lina which were mostly closed (i.e., six) and clarification (i.e., four) type questions.

Immediately after the observation, Rizwan was interviewed and he claimed he was slightly nervous when communicating with Ms Lina i.e., *"A little bit nervous"* [LI5/77/L5]. The interview conducted with Rizwan confirmed that Rizwan perceived himself to have had high CA during the interaction observed. As such, the Rizwan's behaviours observed in classroom that are analysed in the following sub-section reflects the behaviour during an instance in which Rizwan claimed to have experienced high CA.

3.3.5.3 Behaviour During Classroom Interaction. A review of the 113 seconds video of the observed lesson revealed that Rizwan did not create much eye contact with his

English language teacher, i.e., Ms Lina, when she was giving general instructions and conducting the lesson. He often looked at his friends upon answering the questions. This may be due to him being conscious about his peers' reactions to his responses and answers. The lack of eye contact was also observed during instances in which Ms Lina asked him questions and when he was responding to her questions. The lack of eye contact was further confirmed by his teacher, i.e., "*He would pull himself back and even look down to avoid any communication or to avoid answering questions. He doesn't create eye contact"* [TI4/95/T4]. Similar to the four other case studies, the glance away and gaze aversion behaviours were observed not just when he appeared to be thinking of his answers, but when his teacher was asking him the questions and when he responded to the teachers questions. Thus, the tendency for Rizwan to avoid eye contact with his teacher is consistent with the key behaviours reported in learners with high anxiety levels (Gregersen, 2005; Zhiping & Paramasivam, 2013).

Specific to facial activities, it was also observed that whenever he answered Ms Lina's questions, he smiled at the end of his answers. The smiling behaviour was not specific to instances in which he appeared to be unsure of the answers, but was observed to have frequently occurred upon answering the questions. Therefore, similar to the four other case study learners, Rizwan may have been masking his anxiety with his smile (Zhiping & Paramasivam, 2013). Another behaviour that was observed is the frequent blinking. For one specific instance, the observed blinking rate (i.e., eight blinks within twelve seconds) was above the average blinking rate during a conversation, i.e., 26 blinks per minute (Bentivoglio, 1997). This specific instance of high blinking rate observed may be a result of high anxiety experienced (Gregersen, 2005; Lindberg et al., 2021).

In relation to body movements, there were no body shifts and self-adaption behaviours observed. However, based on his teacher's observation of his communicative

behaviour in the classroom, she mentioned that he had a tendency to fidget, i.e., "Does he tend to fidget, sway…?*"* [TI4/115/R], "Yes" [TI4/115/T4]). However, during this specific observation, he was not observed to be fidgeting, instead he had a stiff body posture. As for the verbal behaviours, i.e., disfluency, repetition, repair, and unfilled pauses, there was only one verbal behaviour observed, i.e., filled pause. It may be concluded that verbal disfluencies were generally not observed in Rizwan's responses due to the short length of answers.

3.3.5.4 Summary of High CA Case Study 5 – Rizwan. Rizwan was a primary five learner who had high CA according to his English language teacher and the self-perceived CA survey. Ms Lina reported that Rizwan had low English language proficiency. His personality traits were inconclusive as Rizwan and Ms Lina had contrasting perspectives. However, Ms Lina claimed Rizwan to be an extremely emotionally sensitive learner. In regard to the interaction with his teacher in the classroom, similar to the other learners, it was found that the most frequent type of answers that Rizwan engaged in were either simple or no answers. Specific to the nonverbal behaviours, the behaviours that were frequently observed during interaction with his teacher in the classroom were; (i) smile, (ii) blink, (iii) glance away and gaze aversion, and (iv) stiff body posture. There was only one type of verbal behaviour observed (i.e., filled pause) during this particular classroom observation.

3.3.6 Cross-Case Analysis – High CA

An exploratory collective case study was conducted to investigate the behaviours of five young learners with high CA during interaction in English with their teacher in an ESL classroom. The purpose of this section is to compare and contrast the individual differences of learners across the five case studies, responses to teacher's questions, and the behaviours during classroom interaction. The similarities and differences within the five case study

learners are showcased through specific elements such as English language proficiency, communication apprehension and personality traits. Table 3.6 provides a depiction of the similarities and differences between the five case studies.

Table 3.6

High CA Case Study Learners' Table of Summary

	Case Study 1 CHANDRAN	Case Study 2 SIVA	Case Study 3 AHMAD	Case Study 4 FARIS	Case Study 5 RIZWAN
Ethnicity	Indian	Indian	Malay	Malay	Malay
Language at home	Tamil	Tamil	Malay	Malay	Malay
Language in school	Tamil	Tamil	Malay	Malay	Malay
English language proficiency	poor	poor	poor	poor	poor
Communication apprehension *PRCF score* [a]	50	48	50	46	47
Teacher's perspective	High CA	High CA	High CA	High CA	High CA
Personality traits *Dominant personalities* [b]	openness conscientiousness agreeableness	agreeableness	openness conscientiousness	conscientiousness agreeableness	conscientiousness agreeableness
Teacher's perspective *General personalities*	shy, reserved sensitive puts in effort	introvert observant	quiet low confidence sensitive	sociable open sensitive	quiet sensitive lazy

Personality facets	inconclusive	difficult detached rule-bound cautious efficient organised sensitive nervous	efficient organised difficult detached rule-bound cautious	outgoing friendly compassionate imaginative curious disorganised careless sensitive nervous	rule-bound cautious difficult detached reserved sensitive nervous

Note. [a] PRCF score is out of 70, higher number indicates higher CA. [b] Personality traits based on the PPTQ-C survey.

Case study learners one and two (i.e., Chandran and Siva) were of Indian ethnicity, while case study learners three, four and five (i.e., Ahmad, Faris and Rizwan) were of Malay ethnicity. All five case study learners spoke their mother tongue, i.e., Malay and Tamil respectively at home and in school. All five learners have been perceived by their teachers to have poor English language proficiency and that their poor proficiency was reflected in their quality of responses to the teacher questions. This may have been a contributing factor that had led to their fear of communicating in the English language, specifically, in the ESL classroom.

Based on the perspectives of the respective teachers, the common personality trait all five case study learners share in common is being emotionally sensitive. In addition, all case study learners, except for Faris, have also been described to be either reserved, introvert or quiet. However, a comparison between the learners' self-perceived personality traits based on the PPTQ-C survey and teachers perspectives of learners personality based on the five personality dimensions (i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism) showed contradictory opinions. For instance, Ms Padmini indicated that Chandran was rule-bound and cautious (i.e., traits of low openness personality), while the learner survey showed that Chandran was dominant in openness trait as his score for the trait was high (i.e., 13 out of 15). Similar differences were also found for all other case study learners. While the study overall could not ascertain the accuracy of the learners' and teachers' understanding of the learners' personality characteristics, the discrepancy highlights the need to be cautious in relying on one source to draw conclusions on young learners' personality traits.

3.3.6.1 Responses to Teacher's Questions. All learners produced the highest number of simple answers. The occurrence of mostly simple answers by learner is reflective of their

lack of proficiency in the language. Apart from the simple answers, the five case study learners similarly shared the same second most common type of answer i.e., no answer/no response. Chandran and Faris managed to produce a few complete answers (i.e., three and two respectively), while none of the five case study learners produced complex answers. Based on the trend of question types, it is important to note that the type of teacher questions influences the type of learner responses and the teacher questions were not matched with learners' language proficiency and were not scaffolded to mitigate learners' CA. It was observed that across most cases (excluding case study 2), teachers often asked clarification questions without providing prompts for learners.

3.3.6.2 Behaviours During Classroom Interaction. Table 3.7 provides a depiction of the similarities and differences between the five case studies in relation to their verbal and nonverbal behaviours.

Specific to facial activities, smile was present across all five cases. The learners were observed to have smiled during specific instances i.e., when their name was called by the teacher, when they were answering the questions, when they did not know the answers to the teacher questions and while they appeared to be thinking. When learners smiled as a result of being asked to answer questions or when they did not know the answers, it may be indicative that they were smiling as a result of experiencing anxiety specific to engaging in interactions in the classroom. Thus, the possible reason behind the smile needs to be contextualised based on its occurrence as there are various possible explanations (i.e., mask true feelings, insufficient content knowledge to answer the questions, and enthusiasm about the topic) for the occurrence of smiling behaviour as depicted within each case analysis.

From the observation and teacher's accounts of their communicative behaviour, four out of five case study learners (i.e., Chandran, Ahmad, Faris and Rizwan) have a tendency to

fidget while interacting in English with their teacher in the ESL classroom. Although Rizwan was not found to have fidgeted during the observed interaction, his teacher claimed that he usually fidgets when communicating in the classroom. Siva, the only learner without the tendency to fidget had a very stiff body posture when interacting with Ms Ooi.

All of the five case study learners have a common gaze behaviour in which they were observed to have glanced away often and engaged in gaze aversion behaviours. This was further confirmed by each of their respective teachers. As such, it can be concluded that all five of the case study learners have a lack of eye contact with their teacher during interaction in the classroom. In addition, another behaviour that was observed was high blinking rate by two case study learners i.e., Faris and Rizwan. Although Chandran, Siva and Ahmad were observed to have blinked several times during interaction with their teacher, the rate of blinks were within the average rate of blinks in a conversation (Bentivoglio, 1997).

In line with verbal disfluencies, filled pause was observed among three of the five case study learners i.e., Siva, Faris and Rizwan. The common type of filled pause observed is "*uh*". In addition, repetition was observed to be present in Ahmad and Faris' utterances. However, as noted within each case study analysis, the limited utterances may have influenced the frequency of verbal disfluencies observed. As such, a substantive conclusion may not be drawn based on the observed interactions. As the nature of the interactions with the teacher may have driven the learners to elicit shorter answers, it may have subsequently impacted the frequency of verbal disfluencies.

Table 3.7

High CA Case Study Learners' Behaviours

Behaviours	Case Study 1 CHANDRAN	Case Study 2 SIVA	Case Study 3 AHMAD	Case Study 4 FARIS	Case Study 5 RIZWAN
Facial Activity	• smile while thinking or responding	• smile while thinking or responding	• smile while thinking or when don't know answers	• smile when name called • high blinking rate •	• smile while responding • high blinking rate •
Body movements	• fidget	• stiff posture	• fidget • shaking legs • body shift	• fidget • self-adaption • hand gestures	• fidget
Gaze	• lack of eye contact	• lack of eye contact	• lack of eye contact	• lack of eye contact	• lack of eye contact
Verbal Disfluencies	-	• filled pause	• repetition	• filled pause • unfilled pause • repetition	• filled pause

3.4 Discussion

The present study explored the behaviours of learners with high CA during interaction with the teacher in the ESL classroom. Based on the analysis of five case study Malaysian primary school learners, i.e., Chandran, Siva, Ahmad, Faris and Rizwan, overall findings indicate that: (i) all five learners were inclined towards giving simple and no answers which were associated with the quality of teacher questions, and teacher questions that did not match with learners' language proficiency and were not scaffolded, did not enhance quality of answers nor mitigate CA (ii) in the identification of CA behaviours in the classroom, there is no one specific marker but a cumulation of markers, and there were specific nonverbal markers (i.e., lack of eye contact, smiling while responding to the teachers' questions, fidget, and high blinking rate) that were observed to be prominent among learners, (iii) there were disagreements between teachers' and learners' perspectives on learners' personality traits. The discussion section consists of three sub-sections and is organised based on the mentioned findings. The discussion draws on the integration of results from the observation and the semi-structured interviews, which have been presented in the preceding section.

3.4.1 Quality of Learner Responses and Teacher Questions

This study found that all five learners most frequently remained silent or responded in simple answers to the questions asked by teachers and similarly this may be a result of their internalised CA. This finding concurred with previous findings that reported a tendency among adult learners to remain silent and talk less as a result of experiencing high levels of CA (Maher & King, 2020; Zhiping & Paramasivam, 2013). A possible learner related explanation for this finding is that it could be due to the learners' thoughts concerning their anxious state that hinders their mental preparation to verbally respond or speak (Choi et al., 2015; Woodrow, 2006). When learners with high CA encounter or are required to interact,

learners' mental preparations are consumed by thoughts of their nervous condition, i.e., fear and anxious feeling. As a result, learners with high CA often encounter mental blocks which leads to being reticent (Li & Liu, 2011).

The teacher related explanation for the quality of learner answers observed in this study is that it may be associated with the way in which questions were phrased by the teachers. Although the type of questions asked by teachers may be facilitative in promoting learner engagements (Noor et al., 2012), four teachers (Ms Padmini, Mr Danial, Ms Lina and Ms Nisha) appeared to not stimulate greater quality of learner answers, but instead quickly accepted learners' answers and moved on without prompting further elaboration. It was found that only Ms Ooi prompted for further elaboration from Siva through clarification questions, while the other teachers' clarification questions were mainly focused on the elicitation of more examples.

Contradictory to the findings of past studies on the influence of specific types of questions asked by teacher on learners' interaction in the classroom (Farahian & Rezaee, 2012), in this present study, Chandran, Ahmad, Faris and Siva shared during the interview that they have a tendency to feel anxious whenever their teacher asks them a question. This is in line with the notion that despite the type of questions asked, learners who are susceptible to high anxiety are not specifically triggered by the type of questions asked, but instead feel anxious by the act of their teacher asking them questions in the classroom (Atasheneh & Izadi, 2012).

In addition, there was a mismatch between the teacher questions and the low levels of English language proficiency among all five learners. Although it has been established that language learners have a tendency to elicit limited responses as a result of the low proficiency and command for the language (Kassem, 2018; Noor et al., 2012; Sundari, 2017), the teachers did not scaffold and match their proficiency levels. Therefore, it is possible that

during most instances in which they remained silent, they may have been thinking of the answers to the teacher's questions, and even if they may have had ideas to share, they may have withdrawn from doing so or failed to produce complete sentences due to their lack of command of the English language, and this corroborates their respective teachers' perspectives. As such it may be drawn that it is possible for young learners with high CA to feel anxious regardless of the type of questions asked, but the lack of quality responses from learners highlights that teachers should improve on the quality of their questions by providing learners with high CA and low language proficiency specific prompts to facilitate the interactions, as a facilitative role taken by teachers could encourage learners to communicate more effectively in the classroom (Burden, 2004).

An incidental finding of this study is that all five teachers mostly asked clarification questions followed by closed questions. However, it is unclear as to whether the teachers may have asked more closed and clarification questions as they were aware of learners' high levels of communication apprehension. In addition, it may also be possible that the teachers asked such questions as they took into consideration the level of language proficiency of these five case study learners. This study is unable to provide the justification on the trend observed in the choice of the teachers' questions. Driven by the observed trend in the type of questions asked, for comparative purpose, the next study (Study 3) in this thesis will explore the types of questions asked by the teachers to young learners with low CA.

3.4.2 Behaviour of Learners with High CA

3.4.2.1 Gaze Behaviour. The findings of this study indicated that the five young learners often glanced away and engaged in gaze aversion behaviours. There are two possible factors that could provide an explanation for this finding. Firstly, the lack of eye contact among learners may be driven by learners wanting to avoid prolonged interactions with their

teachers as a result of their fear or anxiety (Gregersen, 2005). The findings of this study showed that learners avoided maintaining eye contact with the teacher and frequently engaged in gaze aversion behaviours. As maintaining eye contact increases the possibility of continued interaction with others (Jarick & Bencic, 2019; Richmond et al., 2012), Chandran, Siva, Ahmad, Faris, and Rizwan may have engaged in less eye contact with the teacher in order to avoid prolonged interaction. In addition, it has been argued that the avoidance of eye contact are used by learners as a coping mechanism to deal with their anxious state especially when interacting with teachers (Zhiping & Paramasivam, 2013).

Secondly, the glancing away behaviour in particular, may be indicative of cognitive processes that learners engaged in. For instance, Knapp et al. (2012) stated that individuals have a tendency to glance away when trying to or when having difficulty in processing information. As such, it is possible that in this study, the case study learners were also processing their teachers' questions and thinking of the answers to produce when the glancing away behaviour was observed.

3.4.2.2 Facial Activity. A facial activity that was more prominently observed in all five case study learners was the act of smiling. All five learners were observed to have frequently smiled when they were thinking or responding to the teachers' questions. This study takes into consideration the occurrence of smiling behaviour in line with the context (i.e., instances of interactions with a teacher such as responding to questions or listening to teachers' questions) and its accompanying behaviours. There are several plausible explanations for the smiling behaviours observed. Firstly, a smile may be produced as a result of having insufficient knowledge to answer the teacher's question (Sert, 2013; Sert & Jacknick, 2015). Learners smile during instances in which they produced an insufficient or wrong answer (Petitjean & Gonzalez-Martinez, 2015). This has been more commonly

observed in instances whereby learners smile with a long and silent mutual gaze with their teacher, which subsequently acts an indicator that learners do not have sufficient knowledge to further engage in the interaction (Sert, 2013).

Secondly, a smile may also be indicative that an individual is enthusiastic about the topic (Raschotte, 2002). This type of smile is known as the enjoyment smile, in which an individual engages in the act of smiling as a result of a positive emotion (Frank & Ekman, 1993). For instance, this was seen in this study when Siva was smiling while talking about his mother as his real-life hero, and therefore the smiling behaviour occurred when the topic was relevant to him personally, which reflected positive emotions. This is in line with the act of smiling by learners as a result of a positive encounter which subsequently reflects on how they feel (Yan et al., 2011). This is unsurprising as smiles are a prototypical facial expression of happiness (Leppanen & Hietanen, 2007).

In addition, the smiling behaviour may also be influenced by culture and context. In some cultures (e.g., Chinese), learners may mask their facial expressions with a smile (Pitton et al., 1993; Yu & Gregg, 1993). Specific to cultural influence, the conventions of attempting to control facial activity in a given social situation differs from one culture to another (Ekman & Friesen, 1982). For instance, although learners from two different cultures (e.g., American and Japanese) may experience the same type of anxiety when interacting or communicating, in one culture (i.e., Japanese) there is a greater tendency for smiling behaviour to represent the act of masking one's true emotions and feelings i.e., feeling of anxiousness and discomfort, in comparison with another culture (i.e., American).

The observed smiling behaviour may also be a behavioural pattern that is specific to nature of classroom interactional contexts (Sert & Jacknick, 2015). In the classroom context, the act of smiling may be indicative of learners' interactional engagement in solving a large range of problematic actions (Petitjean & Gonzalez-Martinez, 2015). For instance, the range

of problematic action includes producing answers that are irrelevant to the topic of interaction, thus smiling to prevent trouble escalation or unwanted reactions from the teacher. Thus, it is evident that there are conversational factors to be considered in the classroom interactional contexts. As past studies mainly observed behaviours of anxious learners during public speaking and oral examination contexts, this study's findings have shown that the act of smiling by learners may in fact be a behaviour associated with CA during teacher-learner interactions in the classroom context. In addition, past studies that have focused on adult learners revealed that there were no significant display of smiling behaviours (e.g., Lindberg et al., 2021) as well as more frequent smiles observed in non-anxious learners (e.g., Gregersen, 2005). This therefore indicates the need for future research to specifically examine young learners' smiling behaviour during interactions with teachers in relevance to high CA.

Another facial activity that was highlighted in this study is the blinking rate. In this study, a high blinking rate was not a prominent behaviour across five case study learners as it was only observed when Faris and Rizwan were interacting with their respective teachers. Although the occurrence of high blinking rate may be a result of high anxiety experienced (Giannakakis et al., 2017; Gregersen, 2005; Lindberg et al., 2021), it was not observed to have occurred in Chandran, Siva and Ahmad's interactions. Thus, this may suggest that it is not a prominent CA behaviour that is common among young learners, rather the high rate of blinks is more subjective to each individual, or specific interactive contexts, i.e., listening, hearing, speaking (Hirokawa et al., 2004).

3.4.2.3 Body Movement. The findings of this study indicate that Chandran, Faris, Ahmad and Rizwan have a tendency to fidget while interacting with their teacher in the classroom. This is in line with past studies that have indicated fidgeting to be a behaviour

associated with high anxiety levels experience (Gregersen, 2005; Lindberg et al., 2021; Mulac & Sherman, 1974). On the other hand, Siva was the only learner that was observed to be very stiff throughout the entire observation. Although this is a contrasting behaviour to fidgeting, it is also a behaviour that has been strongly associated with high levels of anxiety (Gregersen, 2005). The body movement that this study has observed concurs with Mulac and Sherman's (1974) two dimensions, i.e., rigidity (stiff and lack of body movements) and agitation (fidgeting), that have been specified as behaviours related to anxiety. As such, this exploratory study has found that agitation and rigidity are two dimensions that may most likely be reflective of the behaviours of young learners with high CA.

The findings of this study on the behaviours of learners with high CA suggest that behavioural indicators of high CA in the classroom are not independent but rather high CA among learners may be identified through a range of cumulative behavioural markers as observed in this study. As this study has highlighted specific behaviours such as lack of eye contact, smiling while responding to teacher's questions and fidgeting, it allows for the explicit knowledge on the common behavioural markers that may be used to identify learners' CA. Nonetheless, to understand the threshold of these behaviours, Study 3 will explore behaviours of learners with low CA to create a baseline that differentiates learners with high and low CA.

3.4.3 Personality of Young Learners with High CA

A comparison of learners' dominant personality traits based on the survey and the teachers' views of learners' personality traits showed that there were significant disagreements, which indicated that there were differences between self (learners') and third-party (teachers') perspectives on young learners' personality traits. This highlights the need to be cautious in relying on one source to draw conclusions on young learners' personality

traits. This is reflective of a study conducted by Wirthwein et al. (2019) that found only moderate agreement for the five personality dimensions (i.e., extraversion, openness, agreeableness, conscientiousness, and neuroticism) between self (learners') and third-party (parents') perspectives. Therefore, further studies examining personality traits of young learners in association with CA should examine the personality traits from various sources by taking into consideration the perspectives of those close to the learners such as teachers, parents, and peers.

3.4.4 Implications

The findings of this study have contributed to the understanding of the interactions that occurred in a Malaysian ESL classroom between English language teachers and young learners with high CA. As past studies have not focused on behaviours specific to young learners with high CA, this study serves a stepping stone for future studies relevant to young learners. More specifically, this study differs from past studies on CA as it explored CA behaviours specific to teacher-learner interaction in the English language learning classroom, instead of in the context of public speaking and oral presentation. As such, this study provides theoretical, pedagogical, and methodological implications specific to young learners with high CA in the context of English language classroom interaction.

Firstly, in regard to theoretical implication, it is through this study that we are now aware that there may be differences found in the behaviours of young learners with high CA from behaviours of adult learners. For instance, one obvious behaviour that this study found to differ from literature on adult learners is smiling while responding to teachers. Although it is not possible to generalise the findings to all young learners with high CA, nonetheless, this study shows that there is a need for further examination on behaviours of young learners with high CA specifically during classroom interaction with English language teachers

One methodological implication that this study offers is that the development of future instruments to identify CA among learners should include all of the specific behaviours identified by this study and possibly ascertain the cumulative scores of the occurrence of these behaviours. It is important that behaviours are observed along with the use of other CA instruments such as McCroskey et al.'s (1981) PRCF to be used as a measurement tool to identify young learners with high CA, for a more accurate identification of young learners' CA.

In regard to pedagogical implications, although generalizability of this study's findings is restricted, this study contributes to the budding knowledge on young learners' behaviours in relation to high CA that the teachers may use as a guide to identify and understand learners who are experiencing high CA. For instance, this study found that young learners with high CA displayed a lack of eye contact, frequently smiled while responding to teacher's questions, fidgeted, and produced limited or no response to teacher's questions. With more explicit knowledge on behaviours relevant to CA, teachers are able to more accurately identify learners with high CA (Gregersen, 2007). This study therefore contributes to the practical implications in which teachers may use to understand Malaysian ESL young learners that experience high CA. In addition, this study has also found that that teachers did not promote quality interactions. As CA is contextualised, in the classroom the quality of teachers' questions play an important role. The teachers questions were predominantly closed and clarification type questions which possibly led to the elicitation of limited responses by learners. As such, findings of this study highlights the need to build teacher skills in relation to their questioning and interaction strategies in order to promote learner engagements, especially among young learners with high CA.

3.4.5 Limitations

There are limitations that are noteworthy in this present study. First, because of the limited information about behaviours of young learners with CA in the literature, Lindberg et al.'s (2021) behaviour coding of system was used. As such, it is possible that there may be other behaviours out of the coding scheme and apart from the behaviours observed by the coders that we may not be aware of. Secondly, the observation of behaviours that were analysed in this study were based on one lesson. Therefore, this may have restricted the amount of data that was collected. In line with that, certain behaviours (i.e., verbal disfluencies) that were not observed may have been due to the duration of the observations that were insufficient to observe the occurrence of such behaviours. Thirdly, although brow activities were detailed in the coding scheme, brow activities could not be observed due to the use of mobile eye trackers as it obstructed the view of learners' eye brows.

3.4.6 Conclusion

The present Study 2 explored the behaviours of learners with high CA during interaction with the teacher in the ESL classroom. Five learners with high CA from Study 1 were selected and observed during interactions with their teacher in the classroom.

Firstly, based on this exploratory case study that was conducted in Malaysian primary school ESL classrooms, it was found that the quality of answers were associated with the quality of teacher questions in the classroom. The teacher questions were also not in accordance to learners' language proficiency and were not scaffolded in order to enhance the quality of learner answers and mitigate learners' CA. Secondly, the behaviours that were commonly present across the five case study participants were lack of eye contact, smiling while responding to teacher's questions, fidgeting, and limited or no response to teacher's questions. This is indicative that in the identification of CA behaviours, there is a need to

understand the occurrence of these behaviours cumulatively, rather than independently. However, it is unclear whether these behaviours observed were present as a result of their high CA or these behaviours are common behaviours among young learners in the classroom context. Therefore, the next study (Study 3) was conducted to explore behaviours of young learners with low CA, in order to obtain a better understanding on the range of behaviours based on their CA levels (i.e., high CA and low CA), and to have an understanding of the threshold of these behaviours according to the experiences of high and low CA.

CHAPTER FOUR: STUDY 3 - BEHAVIOURS OF LOW COMMUNICATION APPREHENSION LEARNERS

Study 2 explored the behaviours of learners with high CA and it was found that specific behaviours were prominent among learners during interactions with the teacher in the classroom, i.e., lack of eye contact, smiling while responding to teacher's questions, fidgeting, as well as limited or no response to teacher's questions. However, it is important to understand whether these behaviours are also present among learners with low CA. In order to distinguish the behaviours that are specific to learners with high CA, Study 3 focused on learners with low CA, was conducted.

In this chapter, I present Study 3, an exploration of the behaviours of young learners with low CA when interacting with their teacher in English in the ESL classroom context. Similar to Study 2, the behaviours that have been identified and selected for this study were verbal behaviours (i.e., less talk/silence and disfluency) and nonverbal behaviours (i.e., facial activity, body movement, and gaze). The research design of Study 2 was replicated in this study in which a multiple case study research design was used. The data collection methods of this study include observation, learner and teacher interviews as well as survey. Five Malaysian primary school learners participated in this study.

4.1 Background

As discussed in Chapter 3, there is a lack of understanding on the behaviours of young learners with high CA during interactions with the teacher in the classroom. Observable verbal and nonverbal behaviours of CA are important indicators that can be used by teachers to accurately identify learners' with high CA (Gregersen, 2007). However, the scarce evidence on CA in learning contexts showed that the general manifestations and

intensities of anxieties differ across ages (Beesdo et al., 2009; Rao et al., 2007), there is a need to understand whether the behaviours of adult learners with high and low CA are applicable to young learners. Study 3 is an extension to Study 2, to compare the behaviours of high CA and low CA learners.

Specific to verbal behaviours, adult learners with lower CA have been found to produce longer presentations and more verbal output (Gallego et al., 2022; Lewin et al., 1996; Murphy & Weber, 2019). It is not surprising that individuals with lower CA exhibit higher levels of verbal engagements (Murphy & Weber, 2019). On the contrary, individuals with higher CA have been associated with communication withdrawal from the particular communication situation by remaining silent or talking when it is only absolutely necessary (McCroskey, 1997). In addition, Lindberg et al. (2021) found that the occurrence of verbal disfluencies such as filled and unfilled pauses, repairs, and repetition, were significantly more frequent during high anxiety arousals.

In regard to nonverbal behaviours, anxiety levels have also been associated with specific body postures and movements i.e., open and relaxed body position, fewer body shifts, (Gregersen 2005, 2017; Lindberg et al., 2021) that differentiate individuals with high and low CA. Individuals with lower levels of anxiety have been found to display more open body position as opposed to rigid and closed postures (Gregersen, 2005). Gregersen (2005) further showed that self-adaption gestures were not significant among individuals with lower anxiety; however they engaged in more spontaneous and natural object-focused adaptors (i.e., touching of objects). These findings were further supported by Lindberg et al. (2021) that found low anxiety arousals were associated with fewer self-adaption gestures.

Past studies on anxiety have also focused on facial activities such as gaze behaviours, head nods, blinking rates and smiles. Firstly, gaze behaviour is a behavioural cue for gauging levels of anxiety. Mutual eye contact has been argued to indicate a learner's attempt to

reinforce an interaction with their teacher (Richmond & McCroskey, 2012). Learners with lower anxiety are more comfortable to engage in prolonged interactions with their teachers (Maher & King, 2020), therefore are less likely to break their eye contact. Despite its prominence as a cue for identifying anxiety, there is a tendency for individuals of lower anxiety to also glance away during interaction when they are processing complex and difficult ideas (Knapp et al., 2012). Secondly, specific to head nodding, Gregersen (2005) and Lindberg et al. (2021) observed greater frequency of head nods during instances in which an individual does not feel anxious. Thepsoonthorn et al. (2016) found that higher number of head nods were more prevalent when learners have prior content knowledge on the topic discussed. Thirdly, low anxiety is also associated with lower blinking rates (Gregersen, 2005; Harrigan & O'Connell, 1996; Lindberg et al., 2021). Finally, Gregersen (2005) found that smiling behaviours were one of the key indicators that differentiated learner with low anxiety with their counterparts, as it was observed that non-anxious learners were engaged in prolonged smiles. This may also be a result of reciprocating smiles during interactions (Heerey & Crossley, 2013) or during instances in which one is performing something enthusiastically (Rashotte, 2002). Thus, the context of interaction is important to understand the nuances to better identify learners' anxiety more accurately.

With the knowledge from the literature on the behavioural indicators of older individuals with lower anxiety, this study is conducted to examine the possible behavioural traits and characteristics of young learners with low CA in the ESL classroom context. This study is also conducted to compare and contrast behaviours of high CA (Study 2) and low CA learners to understand the specific behaviours of CA that are relevant to young learners.

4.1.1 The Current Study

To explore the behaviours of young learners with low CA during interaction (i.e., answering teacher question) in the ESL classroom, the main research question that this present study seeks to answer is:

RQ 3: How do Malaysian primary school learners with low CA behave when answering teacher questions in English in the ESL classroom?

4.2 Method

The method of this study replicates the method of Study 2 and therefore the protocol and instruments used were the same as Study 2. Similar to Study 2, this study used a collective case study research design to explore the behaviours of low CA learners in an ESL classroom from a qualitative paradigm, i.e., observation and teacher and learner interviews.

4.2.1 Participants

4.2.1.1 Case Selection. Purposeful sampling was used to select case study participants. Out of 614 participants who completed the McCroskey's PRCF scale in Study 1, 82 learners were identified to have low CA. Learners with low CA were identified based on the cut-off point of one standard deviation (i.e., 8.22) below the mean (i.e., 36.54) of the sample population (McCroskey et al, 1981; Watson et al, 1988). Thus, learners scoring 27 and below were considered to have low CA. The potential case study participants were then identified based on the following three factors (i) consent from learners and their parents, (ii) not wearing spectacles in order to be able to wear the eye tracker, (iii) learners' willingness to wear the eye tracker. Subsequently, 19 potential learners were identified and the first five learners who agreed to participate in the study were subsequently selected. Upon the identification of the learners, their respective English language teachers were then selected to

participate in this present study. In addition, to obtain learners self-perceived personality traits, the Mackiewicz and Cieciuch's (2016) PPTQ-C was used (see Appendix B) to obtain personality trait scores.

4.2.1.2 Demographic Background of Participants. Pseudonyms are used in order to protect the participants' identity. This study consisted of four male learners and one female learner around the ages of 11- 12 years old from schools situated in Kuala Lumpur, Selangor and Negeri Sembilan. The participants comprised of Indian and Chinese ethnicities. Two of the learners spoke English at home and three learners spoke English with their friends in school. Table 4.1 presents summary of the case study learners' demographic data. In this study, the case study learners were from the same classroom contexts as the case study learners in Study 2.

4.2.1.3 Assent and Consent of Participation. As reported in Study 1 and Study 2, the participants in this study only participated upon giving their consent after they have understood the nature of the research and what they will be required to do (see Appendix A).

Table 4.1

Demographic Data of Case Study Learner Participants (Study 3)

Case Study	Learner	Gender	Race	Year of Study	Language (Home)	Language (Friends)	School Type	School Location
1	Vivek	Male	Indian	6	Tamil	Tamil	National Type Tamil (Co-ed)	Semenyih (Selangor)
2	Vincent	Male	Chinese	5	Mandarin	Mandarin	National Type (Boys)	Seremban (Negeri Sembilan)
3	Gurmeet	Female	Indian	5	English	English	National Type (Co-ed)	Seremban (Negeri Sembilan)
4	Aarav	Male	Indian	5	English	English	National Type (Boys)	Sentul (Kuala Lumpur)
5	Shankar	Male	Indian	5	English	Tamil	National Type (Boys)	Sentul (Kuala Lumpur)

4.2.2 Research Instruments

4.2.2.1 Eye Tracker. To track the gaze behaviours of learners during the communication tasks in real time, this study also used the first generation Pupil Labs' eye tracker (Kassner et al., 2014).

4.2.2.2 Learner Interview. The case study learner participants were interviewed with the same set of semi-structured interview questions (see Appendix F) that I used with the learners with high CA in Study 2. The focus of the interview questions was to gather information on learners' CA experience in the classroom following their responses on the PRCF.

4.2.2.3 Teacher Interview. Semi-structured interviews were conducted with the learners' respective English language teachers of at the end of this study and the interviews were audio recorded and then transcribed. The focus of the interview questions were to obtain teachers' perspectives on case study learners' CA, personality and behaviour (Appendix G).

4.2.2.4 Observation. Similar to Study 2, the interactions observed were video-recorded. Prior to conducting the observation, the respective teachers were given the observation guideline which consisted of information on the intended classroom observation, eye tracking equipment, video recording and the communicative task (see Appendix E).

4.2.2.5 Coding Schemes. The two coding schemes used in Study 2 were also used in this study to code the teacher and learner answers as well as learners' behaviours.

4.2.2.5.1 Questions and Answers in English Language Teaching (QAELT). The QAELT coding scheme (Smit et al., 2021) was used to code teacher questions (i.e. non-elicitation, closed, clarification, and open-ended questions) and learner answers (i.e. none, simple, complete, and complex) in an English language classroom. The QAELT coding scheme is presented in Appendix H.

4.2.2.5.2 Behaviour Coding Scheme. Using Lindberg et al.'s (2021) behaviour coding scheme (see Appendix H), the verbal behaviours coded were the number of times (i) unfilled pauses, (ii) filled pauses, (iii) repetitions, and (iv) repairs occurred. The nonverbal behaviours coded were: (i) facial activity (i.e., blink, nod, smile/laugh, and brow movement), (ii) body movement (i.e., body shifts and self-adaption gestures) and (iii) gaze behaviours (i.e., gaze aversion, glance away, and mutual gaze). Similar to Lindberg et al.'s (2021) method of coding learners' gaze, this study used an eye tracker to identify the participants' eye movements.

4.2.3 Data Collection and Analysis

4.2.3.1 Data Collection Procedure. Similar to Study 2, the case study learners were familiarised daily with the equipment, for approximately one and a half to two weeks prior to the actual observation.

The case study learners were given specific instructions to ensure that the correct use of the eye tracking equipment, i.e., (i) avoid touching the eye tracker, (ii) to immediately inform me if there were any problems with the equipment. The process of putting on the eye tracker as well as the eye calibration procedure took approximately 10 minutes. Upon setting up the eye tracker, the learner then was sent back to the classroom to resume his or her lesson.

For each observation, the cameras were positioned at the front of the classroom and I was not present in the classroom throughout the lesson. The video recording was stopped approximately 15 minutes into the lesson, and I then proceeded to collect the eye tracker and the cameras. After the lesson, the case study learner was interviewed on (i) their experience of using the eye tracker, and (ii) their one-to-one interaction with their teacher during the lesson. Upon completion of classroom observation and learner interviews, the relevant English teachers were then interviewed at their preferred and convenient time.

4.2.3.2 Data Analysis. Similar to Study 2, the average time of interaction between the case study participants and their respective teachers was approximately two minutes (i.e., 120 seconds). In order to remain consistent in the duration across all cases, data beyond two minutes were not coded. The interviews and learner-teacher interaction in the classroom were transcribed. For greater accuracy, the transcripts were then manually checked and edited. Each of the utterances were timestamped and given an utterance number. As this study contains various data sources (i.e. teacher interview, learner interview, observation), each utterance was given a reference code which are used throughout this study.

To establish the reliability of the coding of the behaviours as well as the questions and answers, 20% of the data was given to a blinded coder. The blinded coder was first given the same set of instructions and guidelines used by the main coder of this study (see Appendix H). Both the researcher and the coder first coded one case together. Once familiarised with the behavioural checklist, the blinded coder then proceeded to independently observe and rate one case. Cohen's Kappa test was used to check the inter-rater reliability score. For the questions and answers using the QAELT coding scheme, good reliability was obtained as the Cohen's Kappa value was 0.84. While for the behaviours using Lindberg et al.'s (2021) behaviour coding scheme, moderate to good reliability were obtained for the nonverbal

behaviour (i.e., gaze – 0.78, blink – 0.68, nod – 0.71, smile – 0.67, body shift – 1.00, self-adaption – 1.00) while for all verbal behaviours perfect agreements were obtained (i.e., unfilled pause – 1.00, filled pause – 1.00, repair – 1.00, repetition- 1.00).

4.3 Results

4.3.1 Low CA Case Study 1 – Vivek

4.3.1.1 Case Description. Vivek was a 12 year old male learner in a national-type Tamil primary school. He spoke Tamil at home with his family and also in school with his friends. Based on the PRCF survey, Vivek's self-perceived CA score was 25. His CA subdimension mean scores for CCF, GCF and SCF were low, i.e., 1.60, 1.00 and 2.33 out of five respectively. During the interview, Vivek claimed that he was slightly nervous to interact with someone new (i.e., "*Just a bit nervous"* [LI6/55/L6], "*Because new person I don't know one, so just a bit nervous"* [LI6/57/L6]), but did not feel nervous communicating with others in general or when others asked him questions (i.e., "*Do you feel scared to talk to other people?"* [I/58/R], "*No"* [LI6/59/L6], "*Does it scare you when someone asks you a question?"* [LI6/60/R], "*No"* [LI6/61/L6]).

Both his English language teachers, i.e., Ms Padmini and Ms Menakshi, perceived that Vivek did not have CA as he was more confident when in speaking (i.e., "*No he doesn't. He is a calm person, he answers questions …"* [TI6/66/T6], "*He is more confident when it comes to speaking. He is not very cautious about his grammatical mistakes. He will just try to say something."* [TI1/79/T1]).

Vivek's most dominant personality traits based on the survey scores were extraversion and openness which were 13 and 12 out of 15 respectively (see Appendix I). This was in line with his teachers' perceptions as they reported that he was outgoing, friendly, compassionate, imaginative, curious, disorganised, careless, secure, and confident

(see Appendix I). In addition, his teachers also claimed that he was generally an extrovert and a sociable learner.

> *He is an extrovert ... he is very very happy go lucky, who is not bothered by anything.*[TI6/73/T6]
>
> *Vivek goes around, talks to everyone all the time* [TI1/87/T1] *... He is noisy and more active ...* [TI1/89/T1]

His teachers also reported that he was not an emotionally sensitive learner and took criticisms well.

> *... when I scold him for something he did wrong, he will say "ok teacher I am sorry, I am sorry". ...He is that sort of character. So I think that is also a reason why he can accept criticism in a very subtle way.* [TI6/73/T6]
>
> *He is not sensitive, you can scold him and he will still be laughing.* [TI1/91/T1]

In addition, one of his teachers also claimed that he usually does not put in his best effort in regard to work completion, which is indicative that he was less performance oriented.

> *But he does not like give his best when he is required to do a task he is just like, 'cincai' (messy). Okay, we just do and pass it up, you know. That he is not very particular that okay it has to be correct and all those kind of things. It's like that* [TI1/89/T1]

Vivek's teachers' account of his personality corroborated with his extraversion and openness scores. Based on perspectives of both the teachers' and learner's, it can be summarised that Vivek displayed the traits of low CA in the classroom. Although during the interview he mentioned that he was slightly nervous to communicate with strangers, he was classified as a learner with low CA based on his teacher's perspective and also his survey scores.

4.3.1.2 Responses to Teacher's Questions. The activity of the observed lesson was writing an essay on a school field trip. This observed lesson was a pre-task activity in which learners engaged in a whole class discussion on the points to include in their respective essays. The teacher, Ms. Padmini facilitated an open class discussion by asking learners for their opinions on where they would like to go on a field trip and the reasons for choosing the particular field trip location.

Throughout the lesson, Vivek experienced some difficulty in responding to the teacher's questions in English, but he tried to respond with appropriate words and sentences in English, with some help from the teacher and his friends. He appeared eager to answer the questions but there were instances in which he sought permission to share his answers in Tamil which was indication of learning regulatory behaviour (e.g., "*Teacher to uh .. teacher can I tell Tamil?"* [O6/69/L6]).

His Tamil responses were excluded from the analysis and only his responses in English were coded and reported in this study. When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 11 question and answer pairs in English. The total accumulated duration of interaction (i.e., 11 question and answer pairs) between Vivek and his teacher that was used for analysis was 116 seconds.

An overview of Vivek's type of answer responses showed that Vivek's answers were mostly simple (i.e., nine questions), which consisted of utterances with approximately three words and below, followed by complete answers (i.e., two questions). The limited response produced by Vivek to the questions asked by Ms Padmini may be due the type of questions that were asked by Ms Padmini (Erlinda & Dewi, 2014). For instance, Ms Padmini predominantly asked closed and clarification questions (i.e., four questions each), for which Vivek produced simple answers. However, when Ms Padmini asked three open questions that

required higher order thinking (e.g., "*Okay Vivek what is the benefit of a herbal plant?*" [06/66/T1]), Vivek responded to two of the questions with complete answers.

In accordance with his teachers' perspectives and his self-reported level of CA through the survey and interviews, Vivek also shared that did not feel anxious when he interacted with Ms Padmini in the classroom during the observed lesson. Immediately after the observation, Vivek was interviewed and he shared that he did not feel nervous (i.e., "*How did you feel when you were talking to Ms Padmini?"* [LI6/81/R], *"Just normal"* [LI6/82/L6], "*Were you nervous when you talk to her during the lesson earlier?"* [LI6/83/R] "*No."* [LI6/84/L6]). He also claimed that he usually does not feel nervous when interacting with Ms Padmini (i.e., *"Normally are you nervous to talk to Ms Padmini?"* [LI6/85/R], "*No."* [LI6/86/L6]). Therefore, the behaviours analysed in the following section reflects on Vivek's behaviour during an instance in which Vivek claimed to have experienced low CA.

4.3.1.3 Behaviour During Classroom Interaction. A review of the 116 accumulative seconds of the interaction during the observed lesson revealed that Vivek generally maintained eye contact with his English language teacher, Ms Padmini, in the classroom. This is parallel to his teachers' observation of his communicative behaviour in the classroom, in which she mentioned that Vivek creates eye contact during interaction with her, i.e., "... *He does not like avoid eye contact. He looks straight, he just looks into my eye and he just says what he is supposed to say ..."* [TI1/143/T1]. Although he maintained eye contact for longer periods in general, he did look at his friends between the teacher's question and his answer, in order to get some assistance from his friends. This may be due to his lack of language proficiency, according to one of his teachers, , i.e., "*He is less proficient in English"* [TI6/66/T6].

Specific to Vivek's facial activities, it was also observed that he smiled while thinking or responding to Ms Padmini's questions. In total, Vivek smiled five times during the interaction with Ms Padmini. It was specifically observed that the smiling behaviour occurred during instances in which Vivek appeared to be unsure of the answers.

Apart from the smiling behaviour, another prominent facial activity observed was high frequency of blinking. When Ms Padmini asked him a question on his opinion (i.e., *"Okay uh Vivek, what is the benefit of going to the tropical fruit garden?"* [O6/100/T1]), he appeared to be thinking and structuring his response to the question (i.e., *"Teacher it useful, it useful to uh, teacher teacher ... (pause) ... to learn type of fruits*" [O6/101/L6]). During this specific instance, he blinked 20 times within 14 seconds, which was above the average blinking rate during a conversation, i.e., 26 blinks per minute (Bentivoglio, 1997). High blinking rate have been associated with high anxiety experienced (Gregersen, 2005; Lindberg et al., 2021) and were also observed among high CA learners in Study 2. However, the blinking behaviour observed during Vivek's interaction, specifically occurred as he was trying to think of the correct words in English, rather than instances in which he remained silent or when his teacher was asking him questions.

In relation to body movements, it was found that when Vivek was trying to answer Ms Padmini's questions, there were body shifts and hand gestures, which was comparatively different from high CA learners in Study 2 who were observed to have fidgeted frequently and had a stiff body posture. This behaviour was especially observed to have occurred when Vivek appeared to be thinking of the correct words in English. Interestingly, although Vivek also engaged in a self-adaption behaviour (five times), i.e., touching his neck and mouth, the self-adaption behaviour occurred while he displayed open and relaxed body posture. The self-adaption behaviours were particularly observed to have occurred when he was listening to Ms

Padmini's questions and also while he was thinking of the answers, unlike the high CA learners in Study 2 who engaged in self-adaption behaviours as they fidgeted.

Although Vivek's English language proficiency was low, unlike the high CA learners in Study 2, he displayed a willingness to attempt to answer the questions asked by Ms Padmini. As for the verbal behaviours, all four types of verbal disfluencies i.e., repair (once), repetition (once), filled pause (thrice) and unfilled pause (twice), were observed. As Vivek's language proficiency was low, verbal disfluencies were observed when struggling to identify the correct words to respond (e.g., "*Teacher sick … (pause) … teacher use uh uh sick to*" [O6/67/L6]).

4.3.1.4 Summary of Low CA Case Study 1 – Vivek. Vivek was a primary six learner who had low CA according to his English language teachers and the self-perceived CA survey. Vivek was also reported by his teacher to not be proficient in the English language. However, he was able to seek permission to answer in Tamil during instances in which he was experiencing difficulty in responding to the questions in English, and he displayed willingness to engage in classroom interactions even when he did not know the answers to the teacher questions. Specific to personality traits, Ms Padmini's and Vivek's perceptions were congruent as based on learner's survey and teacher interview, it was found that the most dominant personality traits were extraversion and openness. Ms Padmini also claimed that Vivek was not an emotionally sensitive learner and accepted criticism well. Specific to the observation, as Ms Padmini predominantly asked closed and clarification questions, he mainly responded with simple answers. However, out of the three open questions asked, Vivek produced two complete answers. Specific to the nonverbal behaviours, the behaviours that were frequently observed during interaction with his teacher

in the classroom were; (i) smile, (ii) blink, (iii) hand gestures, and (iv) glance away during instances of seeking help from friends.

4.3.2 Low CA Case Study 2 – Vincent

4.3.2.1 Case Description. Vincent (pseudonym) was an 11 year male learner in a national primary school. He spoke the Mandarin language at home with his family and in school with his friends. Vincent's self-perceived CA score from the PRCF survey was 21. His mean scores for the subdimensions of CA, i.e., CCF, GCF and SCF, were 1.00, 1.00 and 2.67 out of five respectively. During the interview with him, he claimed that he was fine with communicating with others (i.e., "*Feels alright, I will ask him how are you, have you eaten anything in the morning"* [LI7/58/L7]) and was only slightly nervous to talk to people he has not met before (i.e., "*A little bit."* [LI7/60/L7], "*Because I have never see him before."* [LI7/62/L7]).

During the interview with his English language teacher, Ms Ooi, when asked whether Vincent had CA, she claimed that Vincent generally did not have CA although he was not fluent in the English language especially in the spoken form. She felt that his spoken performance was not a result of his CA, but a result of his language proficiency. She did not believe that he had any fear or anxiety in relation to communicating.

> *Actually I don't see that he has communication apprehension, because I feel it is because of his language. But then if you look at his work, he can do it in his written form, he is good in his written work.* [TI2/43/T2]

Specific to personality traits, the survey results indicated that his most dominant personality domain was conscientiousness at 14 out of 15, followed by agreeableness at 12 out of 15. The domain that he scored the lowest was extraversion at only 6 out of 15 (see Appendix I). These self-reported personality traits were in line with his teachers' views on his personality. Ms Ooi reported that Vincent was reserved, friendly, compassionate, efficient

and organised (see Appendix I). Ms Ooi also reported Vincent to be a quiet, obedient and an introvert learner who did not interact much with others, apart from his close friends.

> *As in general, I feel that he is quite obedient in the class, he won't make noise, he will just listen.* [TI2/47/T2] *... He is an introvert person, he doesn't mix much with other, only with his particular group of friends.* [TI2/49/T2]

His teacher has also mentioned that although he was a quiet learner who doesn't volunteer to answer questions, he spoke and answered questions in class when he was asked to.

> *... But when it comes to communicating or answering questions, he won't be the first person to answer. But he will think and respond when I talk to him or ask him questions.* [TI2/47/T2]

Based on perspectives of both the teacher and learner, it can be concluded that Vincent was a learner with low CA. Although during the interview he mentioned that he was slightly nervous to communicate with strangers, he was classified as a learner with low CA based on his teacher's perspective and also his survey scores. Vincent's teachers' account of his personality corroborated with his high agreeableness and conscientiousness scores and low extraversion score.

4.3.2.2 Responses to Teacher's Questions. The activity of the observed lesson was on writing an essay on real life heroes. The teacher, Ms. Ooi first played a short video clip on fictional heroes, and then facilitated an open class discussion by asking learners about their favourite heroes.

Throughout the lesson, Vincent shared his views and opinions on the topic, however, he did not volunteer to answer the questions. This is in line with Ms Ooi's view as she mentioned that Vincent does not volunteer to answer questions in the classroom. Although he did not volunteer to answer the questions, he responded to Ms Ooi's questions relatively fast and Ms Ooi did not have to repeat the questions as he answered all but one question. Only

one question was repeated by Ms Ooi, as she could not hear his answer and she was also distracted by other learners who were talking loudly in the class.

During the instances in which Ms Ooi asked him questions, he responded in English. However, the nature of the questions which were predominantly closed questions (i.e., 4 questions) and clarification questions (i.e., five questions), lead to simple and short answers. This can be seen in the example below of the interaction between Vincent and Ms Ooi during the lesson.

Teacher Ooi:	*He has a small rocket? He has a small rocket is it?* [O7/50/T2]
Vincent:	*Yes (Nods head)* [O7/51/L7]
Teacher Ooi:	*Ok now uh how many marvel movies have you watched? Did you watch the last marvel movie or not, the last movie?* [O7/52/T2]
Vincent:	*No (Shakes head)* [O7/53/L7]

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 13 question and answer pairs that were observed. As he responded in English for all questions, all his responses were analysed. For the behavioural analysis, the total accumulated duration of interaction (i.e., 13 question and answer pairs) between Vincent and Ms Ooi was 113 seconds. Appendix J shows the frequency counts of the type of questions and answers during interaction with the Ms Ooi.

An overview of Vincent's type of answer responses showed that Vincent mostly produced simple answers (i.e., eleven questions), which consisted of utterances with approximately three words and below, followed by complete and no response to the teacher's questions (i.e., one question each). Only in one instance Vincent remained silent and did not respond, but it was observed that this was due the noisy classroom environment which led Vincent to be unable to hear the teacher's question clearly. Similar to Vivek, the simple answers produced by Vincent may be due the type of questions (i.e., closed, clarification) that were mainly asked (Erlinda & Dewi, 2014). For instance, Ms Ooi predominantly asked

closed (i.e., four questions) and clarification questions (i.e., five questions), for which Vincent mostly gave simple answers.

Immediately after the observation, Vincent was interviewed and he shared that he did not feel anxious when he interacted with Ms Ooi in the classroom during the observed lesson (i.e., "*Were you nervous or scared when your Ms Ooi was talking to you?"* [LI7/103/R], "*No"* [LI7/104/T7]). He added that he was only scared he would have forgotten something (i.e., "*Scared only if like if I forget something. If not I not scared"* [LI7/102/T7]). As such, the interview conducted with Vincent established that Vincent perceived himself to have had low CA during the interaction observed. Thus, the behaviours analysed in the following section reflects on Vincent's behaviour during an instance in which he claimed to have experienced low CA.

4.3.2.3 Behaviour During Classroom Interaction. A review of the 113 accumulative seconds of the interaction observed revealed that Vincent was a learner who maintained mutual gaze with Ms Ooi. Specifically, he maintained mutual gaze during six question and answer instances, while he was observed to have glanced away during six instances. All of the six instances in which he glanced away occurred when he appeared to be thinking of the answer. He maintained eye contact with Ms Ooi when she was asking him questions, while he only glanced away as he was thinking of the answers and once he was answering the questions, he recreated eye contact with Ms Ooi. Thus, this generally showed that while listening and answering to Ms Ooi's questions, he maintained mutual gaze. The mutual gaze behaviour was also parallel to Ms Ooi's observation as she reported during the interview i.e., "*Vincent creates eye contact with me during interaction."* [TI2/79/T2]).

In relation to facial activity, Vincent was observed to have smiled in seven question and answer instances. The smiling behaviour was observed to have continuously occurred

upon Ms Ooi asking him the reason for choosing Iron Man as the superhero that he would like to be (i.e., *"Okay why Iron Man?"* [O7/50/T2]). He smiled throughout the subsequent question answer instances as they spoke about his choice of super hero and his opinion on Marvel movies. Unlike high CA learners in Study 2, he was not observed to have smiled during instances of struggling to answer the questions. Thus, Vincent's smiling behaviour may indicate that he was enthusiastic as a result of the topic (Rashotte, 2002). Another facial activity that was observed was blinking behaviour. However, in terms of the blinking rate, unlike the learners with higher CA and Vivek the first learner with low CA, it was below the average blinking rate during a conversation, i.e., 26 blinks per minute (Bentivoglio, 1997).

For body movements, there were no body shifts and self-adaption behaviours observed. Apart from these two body movement behaviours specified in the coding scheme, it was observed that Vincent fidgeted during one specific instance when Ms Ooi asked him about the characteristics of a super hero (i.e., *"No what a character, a person must have, a person is like how, what kind of person is a super hero?"* [O7/105/T2]) and in which he did not answer the question (i.e., *"(remains silent)"* [O7/106/L7]) as Ms Ooi then quickly moved on obtain the answer from another student. This behaviour was only observed during one specific instance in which Vincent did not produce an answer as he could not clearly hear the question asked.

Out of the four verbal disfluencies, (i.e., repetition, repair, filled pauses, and unfilled pauses), only unfilled pause was observed once. The lack of verbal disfluencies may be due to Vincent's simple answers (i.e., 11 answers) which consisted of utterances with approximately three words and below,.

4.3.2.4 Summary of Low CA Case Study 2 – Vincent. Vincent was a primary five learner who had low CA according to his English language teacher and the self-perceived CA

survey. His teacher claimed that Vincent was not proficient in the English language, as this may also be due to the limited exposure and use of the language as he predominantly spoke Mandarin at home and in school. Specific to personality traits, the learner and teacher perceptions were congruent with each other as his most dominant personality trait was conscientiousness (i.e., efficient and organised). In addition, Ms Ooi also revealed that Vincent was a quiet and introvert learner. As his English language proficiency was reported to be low, Ms Ooi also claimed that he usually would not volunteer to answer questions but he was not afraid to try when questions are asked. Specific to the nonverbal behaviours, the behaviours that were observed during interaction with his teacher in the classroom were; (i) smile, (ii) fidget, (iii) mutual gaze, (iv) glance away during instances of thinking. Like Vivek, specific behaviours (i.e., fidgeting and smiling behaviour) appear to be similar with behaviours of high CA learners in Study 2, however, there were nuances in the way in which the behaviours occurred.

4.3.3 Low CA Case Study 3 – Gurmeet

4.3.3.1 Case Description. Gurmeet was an 11 year old female learner from a national primary school. Out of the three languages that she spoke, i.e., English, Malay and Hindi, she mostly spoke English at home with her family and also in school with her friends. In addition, Gurmeet claimed that English was her favourite subject in school as she also spoke the language with her family (i.e., "*My favourite subject is English"* [I/8/L8], *"Because I normally talk in my house, I talk to my parents in English."* [I/10/L8]. Gurmeet's self-perceived CA score from the PRCF survey was is 21. Her CA subdimension mean scores were 1.80, 1.60 and 1.00 out of five for the CCF, GCF and SCF respectively. This was also reflected in the interview as she highlighted that she felt happy talking to others (i.e., "*How do you feel when you are communicating with a new person?"* [I/51/R], "*I feel happy"*

[I/52/L8]) and did not feel anxious to speak to new people (i.e., "*No I am not scared talking to new people. I like making new friends"* [I/54/L8]). This view was also shared by her English language teacher, as Ms Nisha viewed Gurmeet to not have CA as she was very outgoing and she often volunteered to answer questions in the class (i.e., "*No, not at all"* [I/115/T5] … "*She is very outgoing, and she will be the first one to volunteer to answer and all"* [I/117/T5]).

Based on the PPTQ-C survey, Gurmeet's most dominant personality domains were extraversion, openness, and conscientiousness at 15 out of 15 for each of the traits (Appendix I) and her teacher's view concurred with these personalities scores. Ms Nisha claimed Gurmeet to be an outgoing, imaginative and curious learner. However, Ms Nisha also mentioned that Gurmeet was neither efficient and organised, nor disorganised and careless. In addition, Ms Nisha also reported that Gurmeet was a very "*confident and bold learner*" [I/115/T5]) and not an emotionally sensitive learner (i.e., "*Not sensitive"* [I/127/T5], "*... She will defend herself but she won't take things very seriously."* [I/128/T5]). Her teacher also pointed out that she was a team player but could be competitive among her peers, and has a tendency to be dominant at times.

> *She works well in groups but can be very bossy and dominant ... She can't take failures ... When it comes to work, she will complete it fast, but it won't be perfect because she just wants to complete it first.* [I/125/T5]

Similar to Vivek and Vincent, Gurmeet's personality trait scores (i.e., extraversion and openness) corroborated with her teacher's account of her personality. Based on perspectives Gurmeet and Ms Nisha, it can be summarised that Gurmeet displayed the traits of generally low CA in the classroom.

4.3.3.2 Responses to Teacher's Questions. The activity of the observed lesson was on writing an email to a friend about their favourite pet or animal. Ms. Nisha facilitated an

open class discussion by asking learners for their favourite pets and reasons why they liked their pet.

Throughout the lesson, Gurmeet actively engaged in the open discussion and in several instances, she volunteered to answer the questions by raising her hands. She appeared excited to share about her favourite animal and her pet dog. There were instances in which Gurmeet gave long and complex answers to simple questions that were asked by Ms Nisha (e.g., *I have a Pitbull in my house. When I was sleeping every night, the dog will bark so loudly, everybody will be sleeping.* [O8/69/L8]).

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 15 question and answer pairs in English that were recorded. Gurmeet responded to all the questions in English, as such, all her responses were coded. For the behavioural analysis, the total accumulated duration of interaction (i.e., 15 question and answer pairs) between Gurmeet and Ms Nisha that were used for analysis was 114 seconds.

An overview of Gurmeet's type of answers showed that Gurmeet mostly produced simple answers (i.e., nine questions), which consisted of utterances with approximately three words and below, followed by complete and complex answers to the teacher's questions (i.e., three questions each). Gurmeet was the only learner in this study to have produced complex answers and also the learner that produced most complete answers. Gurmeet's complex answers were in response to the clarification questions asked, while the complete answers were in response to the closed questions asked. This may be due to her high level of language proficiency and competency as she was one of the learners that spoke English at home and in school. Based on Gurmeet's responses, it was observed that she was able to engage in higher order thinking for simple clarification questions asked as well as displayed a large repertoire of words and language skills to form her sentences. For instance, Ms Nisha led the interaction

by asking an open question (i.e., *"So do you think it is safe to have a Pitbull at home?"* [O8/72/T5]) to which Gurmeet produced a simple answer (i.e., *"No"* [O8/73/L8]). This was then followed up with a clarification question (i.e., *"Why?"* [O8/72/T5]) which then led to Gurmeet giving a complex answer (i.e., *"I don't know why. I just like him, because I have touched him before and play with him, so he is friendly."* [O8/73/L8]).

In accordance with her teacher's perspective and her self-reported level of CA through the survey, Gurmeet also shared that she did not feel anxious when she interacted with Ms Nisha in the classroom. Immediately after the observation, Gurmeet was interviewed and she shared that she *"felt calm"* [LI8/82/L8]) and confident when interacting with Ms Nisha (i.e., *No, normally I am not nervous talking to Ms Nisha. I like Ms Nisha, she is a good teacher.* [LI8/84/L8]).

4.3.3.3 Behaviour During Classroom Interaction. A review of the 114 accumulative seconds of the interaction during the observed lesson revealed that Gurmeet maintained eye contact most of the time when she interacted with Ms Nisha in the classroom. She maintained mutual gaze whenever the teacher was asking her questions and only looked away to refer to specific objects in the classroom when she responded to the teacher. This parallels Ms Nisha's observation of Gurmeet's behaviour in the classroom as Ms Nisha claimed during the interview that Gurmeet was a learner who creates eye contact in general (i.e., "*... she's very confident and a lot of eye contact"* [TI5/117/T5]).

In relation to facial activity, Gurmeet was observed to have smiled during three specific instances. All three of the instances in which she smiled was specifically when she was sharing about her pet dog (i.e., *"My favourite animal is Pitbull"* [O8/48/L8], *"It's a dog that sometimes it can be friendly but sometimes it's fierce"* [O8/57/L8], *"I have a Pitbull in my house. When I was sleeping every night, the dog will bark so loudly, everybody will be*

sleeping" [O8/57/L8]). Similar to Vincent, her smiles did not occur during instances in which she was struggling to answer the questions. Therefore, the smiling behaviour observed may be a response to enthusiasm instead of anxiety (Rashotte, 2002).

Similar to Vivek, Gurmeet's eye blinking rates during two instances were above the average blinking rate during a conversation, i.e., 26 blinks per minute (Bentivoglio, 1997). During the two instances, Gurmeet was constructing her sentences without any hesitation. This contrasted learners of high CA in Study 2 whose blinking rates were associated with silent or no responses to the questions. In addition, head nods were also observed (i.e., four times) and this may be due to the type of questions. For instance, during all four of the specific instances in which head nods were observed, Ms Nisha asked clarification questions in which Gurmeet produced simple answers in response (e.g., *"Yea"* [O8/61/L8]).

Specific to body movements, self-adaption behaviours were not observed. However, body shift was observed once when she was trying to show the size of her dog (i.e., *"Like from that table (gestures to the next table)"* [O8/59/L8]). Apart from these two body movement behaviours specified in the coding scheme (Lindberg et al., 2021), it was observed that Gurmeet fidgeted with her bottle almost the entire time. This was further supported by Ms Nisha's observation of Gurmeet's communicative behaviour in the classroom, in which she mentioned that Gurmeet always fidgets (i.e., "*She likes to like to you know sway and fidget"* [TI5/191/T5]). Although fidgeting has been associated with high anxiety (Gregersen, 2005), unlike high CA learners in Study 2 whom the teachers reported that fidgeting behaviour only occurs during instances of engaging in interactions, Gurmeet's teacher claimed that Gurmeet also fidgeted when not engaged in any communicative tasks or interaction (i.e., "*When she is standing doing nothing also she tends to, it's like a habit"* [TI5/193/T5]).

As for the verbal behaviours, i.e., repair, repetition, filled pause, and unfilled pause, there were no verbal disfluencies observed. Based on an overview of Gurmeet's type of answer responses, it can be seen that most of Gurmeet's answers were simple (i.e., eight). However, it is noteworthy that she has produced three complex answers and three complete answers. The higher complexity of Gurmeet's answers may be due to her language proficiency and her exposure to the language.

4.3.3.4 Summary of Low CA Case Study 3 – Gurmeet. Gurmeet was a primary five learner who had low CA according to her English language teacher and the PRCF survey. Specific to personality traits, the teacher and learner perceptions were parallel to one another as her most dominant personality traits were extraversion and openness. Ms Nisha also revealed that Gurmeet was confident, bold, and not emotionally sensitive. In addition, Ms Nisha reported that Gurmeet had good English language proficiency and she often volunteered to answer questions in the classroom. In regard to the type of questions and answers, Ms Nisha mostly asked clarification questions and the most frequent type of answers that Gurmeet produced were simple answers, followed by complex and complete answers. She was the only learner in this study that produced complex answers. Specific to the nonverbal behaviours, the behaviours that were frequently observed during interaction with her teacher in the classroom were; (i) smile, (ii) blink, (iii) fidget, (iv) mutual gaze. Similar to Vivek and Vincent, the specific behaviours (i.e., fidgeting, smiling behaviour) that were also displayed by high CA learners in Study 2 consists of nuances in the way in which these behaviours occurred.

4.3.4 Low CA Case Study 4 – Aarav

4.3.4.1 Case Description. Aarav was a 12 year old male learner in a national primary school. He spoke English at home with his family and in school with his friends. Based on the PRCF survey, his self-perceived CA score was 24. For the subdimensions of CA, i.e. CCF, GCF and SCF, Aarav's scores were mostly low i.e., 1.40, 1.80 and 2.33 out of five respectively. However, based on the interview with him, he specified that felt slightly nervous talking to new people (i.e., "*How do you feel when you're talking to a new person"* [I/59/R], "*A bit nervous, I don't know why, but just a bit nervous"* [I/60/L9]) and also talking on stage (i.e., "*When do you usually feel nervous to talk or communicate?"* [I/63/R], "*Like on a stage"* [I/64/L9]). In contrast, he claimed that he did not feel anxious when someone asks him questions (i.e., "*Does it scare you when someone asks you a question?"* [I/61/R] , "*No, I am fine"* [I/62/L9]).

Just like Gurmeet, Aarav's English language proficiency and academic performance, according to his teacher Mr Daniel, were high. Mr Daniel perceived Aarav to have low CA and emphasised that Aarav was a very confident learner who could coped well with mistakes.

> *... he doesn't have communication apprehension. He is a very smart student, good education background, good language background, and his first language is English so he has no issues communicating in English. No matter how difficult the topic is, he will always have something to say. He is not anxious about speaking up, and he is very very confident. Even sometimes you make mistakes, he makes mistakes, but still he the confidence level, wow.* [I/43/T3]

Aarav's most dominant personality traits were extraversion, openness, and conscientiousness at 15 out of 15 respectively. His self-perception of his personality was somewhat similar to his teachers', as Mr Daniel perceived Aarav to be imaginative, curious, efficient, and organised (see Appendix I). Specific to the extraversion personality trait, Mr Daniel stated that Aarav was neither outgoing and nor reserved, but was friendly only with his group of friends (i.e., "*He has a particular set of friends, and he is very close to them, but*

when he will help those that he is not very close to. He has his comfort clique" [I/66/T3]). However, Mr Daniel highlighted that Aarav did not have issues communicating or sharing his ideas in the classroom as he was a very confident learner.

> *… his first language is English so he has no issues communicating in English … no matter how difficult the topic is, he will always have something to say. He not anxious about speaking up, and he is very very confident.* [I/43/T3]

Mr Daniel also mentioned during the interview that Aarav received criticisms well and was an open-minded person (i.e., "*Very open-minded person. Can accept comments and criticism openly"* [I/49/T3])

Based on perspectives of both Mr Daniel and Aarav, it can be summarised that Aarav displayed the characteristics of generally low CA, especially in the classroom. In regard to personality traits, Aarav generally had high openness and conscientiousness personality traits.

4.3.4.2 Responses to Teacher's Questions. The activity of the observed lesson was on the format of writing emails and letters. This activity was a pre-task discussion as the English language teacher, Mr Daniel, later instructed them to write an email and letter as their homework. Throughout the lesson, Mr Daniel lead the lesson by prompting learners to share the points as he asked questions throughout the discussion.

Throughout the lesson, Mr Daniel facilitated the discussion in dual language, i.e., English and Malay language. Specific to the questions that Mr Daniel had asked Aarav, Aarav responded to all the questions in English and Mr Daniel did not need to translate the questions to him in Malay language as he had to with some of the other learners.

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 15 question and answer pairs in English that were recorded. For the behavioural analysis, the total accumulated duration of interaction (i.e., 15 question and answer pairs) between Aarav and Mr Daniel that were used for analysis

was 116 seconds. Appendix J consists of the frequency counts of the type of questions and answers during interaction between Aarav and Mr Daniel.

Unlike Gurmeet whose English proficiency was also high and produced complete and complex responses, Aarav only produced simple answers (i.e., 15 questions), which consisted of utterances with approximately three words and below. The simple answers produced by Aarav to the questions asked by Mr Daniel may be due to the high number of closed questions (14) and clarification question (1), e.g., "*Okay, so here what do you write?*" [O9/32/T3], "*My question is, address is here right, whose address is here?"* [O9/82/T3])

Immediately after the observation, Aarav was interviewed and he shared that he did not feel anxious when he interacted with Mr Daniel in the classroom, during the observed lesson. Aarav stated that he felt comfortable interacting with Mr Daniel during the observed lesson (i.e., "*No. I was comfortable, not nervous."* [LI9/82/L9]). As such, Aarav's behaviours observed in classroom that are analysed in the following sub-section reflects Aarav's behaviour during an instance in which he claimed to have experienced low CA.

4.3.4.3 Behaviour During Classroom Interaction. A review of the 116 seconds of interaction in English revealed that Aarav maintained eye contact with Mr Daniel, when Mr Daniel was interacting and asking questions. Although Aarav was observed to have glanced away during 12 instances, it was found that Aarav glanced away to refer to his book during the interaction, as it was used as a reference. The mutual gaze behaviour is parallel to Mr Daniel's observation as he mentioned during the interview that Aarav's high level of confidence reflected through his mutual gaze behaviour (i.e., "*He stares into my soul, I can sense his confidence, he creates eye contact"* [TI3/75/T3]).

In contrast to high CA learners in Study 2 that only responded to questions that were specifically directed to them, like Gurmeet it was observed that Aarav raised his hands to

answer the questions that Mr Daniel asked, which indicated that he was willing to answer the questions even when the questions were not directed to him. In addition, self-adaption behaviour was observed to have occurred three times during specific instances in which Mr Daniel was asking Aarav questions (e.g., *"Okay so we have to, from, subject, date and then after that what do you do, what do you do here?"* [O9/22/T3]). Apart from this body movement behaviour specified in the coding scheme, no other body movements were observed.

In relation to facial activity, Aarav was observed to have smiled twice while answering questions (i.e.,. *"Informal letter"* [O9/53/L9], *"(raises hand) The receiver"* [O9/85/L9]). In addition, although blinking behaviour was observed, similar to Vincent and Gurmeet, the frequency of occurrence was below the average blinking rate during a conversation, i.e., 26 blinks per minute (Bentivoglio, 1997).

As for the verbal behaviours, i.e., repair, repetition, filled pause, and unfilled pause, there were no verbal disfluencies observed. However, it is noteworthy that the teacher's questions were predominantly closed questions (i.e., fourteen), as such this may be the factor that led Aarav being limited in his length of answers, i.e., utterances with approximately three words and below. Thus, it may be possible that verbal disfluencies were generally not observed in Aarav's responses due to the type of answers (i.e., none and simple answers) that Aarav produced during this specific observation.

4.3.4.4 Summary of Low CA Case Study 4 – Aarav. Aarav was a primary five learner who had low CA according to his English language teacher and the PRCF survey. Based on the five personality traits, his teacher's view matched his high openness and conscientiousness scores, but they had contrasting views on extraversion personality trait as Mr Daniel claimed Aarav to not be a sociable type of learner. In addition, Ms Daniel reported

that Aarav had good English language proficiency and was a confident learner. This was reflected in his ability to answer all the questions asked by Mr Daniel. Mr Daniel predominantly asked a series of closed questions while Aarav only produced simple answers. Specific to the nonverbal behaviours, the behaviours that were frequently observed during interaction with his teacher in the classroom were; (i) mutual gaze, (ii) smile, (iii) self-adaption.

4.3.5 Low CA Case Study 5 – Shankar

4.3.5.1 Case Description. Shankar was an 11 year old male learner in a national primary school. Tamil was the language he spoke at home with his family and English was the language he spoke in school with his friends. Specific to CA, Shankar's self-perceived CA score based on the PRCF survey was 19. In addition, the score for the CA subdimension, i.e., CCF, GCF and SCF, were 1.00, 1.40 and 2.00 out of five respectively, suggesting that he was not anxious in the classroom and in general. Although Shankar had the lowest CA score in comparison to the other case study participants, when interviewed, Shankar claimed that he felt slightly afraid to communicate with new people (i.e., "*A bit scared"* [I/50/L10], "*Because I don't know the person"* [I/50/L10]), and also when someone asks him questions (i.e., "*Does it scare you when someone asks you a question?"* [I/49/R], "*A bit"* [I/50/L10]).

Although Shankar claimed during the interview that he had a tendency to feel scared communicating with others, his teacher's perspective was in line with the survey results. Ms Lina expressed that Shankar did not have high CA in relation to communicating in English in the classroom. She added that he often tried to answer questions in the class even when he did not know the answers. *(i.e., "He does not have communication apprehension because he doesn't have any problem answering questions. Even though he doesn't answer correctly, he still want to try."* [TI3/56/T3])

Specific to personality traits, the survey results indicated that Shankar's most dominant personality traits were extraversion and openness as the scores were 15 and 14 out of 15 respectively (see Appendix I). This was in line with his teacher's perception of Shankar's personality as Ms Lina reported that Shankar was outgoing, imaginative and curious (see Appendix I). She also reported that he is a sociable and friendly learner (i.e., "*Bubbly, talkative, friendly"* [I/59/T3]). Similar to Vivek, Gurmeet and Aarav, Ms Lina claimed that Shankar was open to receiving criticisms and was not an emotionally sensitive learner (i.e., "*Not a sensitive person. When I scold him if he does something wrongly, he will accept it and take it in positively."* [I/61/T3]).

Based on the perspectives of both the teacher and learner, it can be summarised that Shankar's characteristics were consistent with those of low CA. Although during the interview Shankar mentioned that he was slightly nervous to communicate with new people and when others ask him questions, he was classified as a learner with low CA based on his teacher's perspective and also his survey scores. Shankar's teacher's account of his personality traits corroborated with his extraversion and openness trait scores.

4.3.5.2 Responses to Teacher's Questions. The activity of the observed lesson was on a reading comprehension passage which focused on purchasing goods from shops. Ms Lina discussed the passage and the questions relevant to the passage. Prior to the observed lesson, the activity was given to the learners to read and answer the reading comprehension questions. The lesson was focused on checking the answers for each of the reading comprehension questions.

Throughout the lesson, Ms Lina led the lesson by asking learners to share their answers. Based on the answers, she then asked relevant questions to ensure that the learners understood the content of the lesson. It was observed that Shankar voluntarily participated in

the discussion. Similar to Gurmeet and Aarav, he raised his hands twice to answer the questions asked by Ms Lina. Specific to the questions that Ms Lina had asked Shankar, Shankar responded to all the questions in English but none of the questions required him to share his opinion, he was only required to share the answers for the reading comprehension questions.

When the type of questions and responses were coded based on Smit et al.'s (2021) QAELT coding scheme, there were altogether 14 question and answer pairs in English that were recorded. For the behavioural analysis, the total accumulated duration of interaction between Shankar and Ms Lina that were used for analysis was 116 seconds. Appendix J contains the frequency counts of the type of questions and answers during interaction between Shankar and Ms Lina.

An overview of Shankar's type of answer responses showed that Shankar mostly produced simple answers (i.e., 13 questions), which consisted of utterances with approximately three words and below, followed by complete answer to the teacher's questions (i.e., 1 question). The limited or no response produced by Shankar to the questions asked by Ms Lina may be due the type of questions (Erlinda & Dewi, 2014) that were asked by Ms Nisha. Ms Nisha asked nine closed questions (e.g., *"Okay Shankar, look at question number one, what do you get if you buy the shawl?"* [O10/133/T5]) and five clarification questions (e.g., *"How do you know that this one is present tense ah Shankar, how do you know that the question is in present tense?"* [O10/71/T5]). The clarification questions asked were the follow-up questions to closed questions asked (e.g., (i) Close – Clarification (ii) Close – Clarification – Clarification – Clarification – Clarification).

Shankar was interviewed immediately after the observation and he shared that he did not feel nervous when he interacted with Ms Lina in the classroom, during the observed lesson. He claimed that he felt normal and did not feel nervous (i.e., "*No. I was normal, I was*

not nervous." [I/76/L10]). As such, Shankar's behaviours observed in classroom that are analysed in the following subsection reflects his behaviour during an instance in which Shankar claimed to have experienced low CA.

4.3.5.3 Behaviour During Classroom Interaction. A review of the 116 seconds of interaction in English revealed Shankar mostly maintained eye contact with his English language teacher, Ms Lina, when Ms Lina was asking him questions and when he responded to her question. Similar to Aarav, Shankar was observed to have glanced away during 9 instances as he referred to his book during the interaction. Apart from referring to his book, Shankar maintained mutual gaze with Ms Lina when interacting with her. The mutual gaze behaviour was further supported by Ms Lina's perspective as she mentioned during the interview that his high level of confidence was reflected through his mutual gaze behaviour (i.e., "*He will directly look at me, he will not look down, he has the confidence to talk"* [TI4/52/T4]).

In line with his high level of confidence, it was observed that Shankar was quick to respond and when Ms Lina asked him if he was sure of his answer, he responded quickly and his facial expression did not change. Based on this specific behaviour, it was observed that Shankar was confident and his facial expression showed that he did not doubt his answers, even when questioned by his teacher. In addition, it was also observed when Ms Lina made a subtle joke (i.e., *"Free one, meaning you will get 10?"* [O10/39/T4]), he responded to with a smile and laugh (i.e., *"No"* [O10/40/L10]). Additionally, the frequency of occurrence of his blinks were below the average blinking rate during a conversation, i.e., 26 blinks per minute (Bentivoglio, 1997). In addition, head nods were also observed (i.e., twice) and this may a result of being in agreement (Ishi et al., 2014). For instance, during the two specific instances

in which head nods were observed, he produced simple answers in response (e.g.,*"Yea"* [O10/77/L10]).

For body movements, self-adaption behaviour was observed to have occurred once. Similar to Vivek and Aarav, Shankar was observed to have engaged in the self-adaption behaviour while he was listening to the teacher's question (i.e., *"Full sentence start with what?"* [O10/107/T4]). Apart from this body movement behaviour as specified in the coding scheme, it was also found that he fidgeted with his pencil once while responding to Ms Lina's question (i.e., *"Uh subject"* [O10/108/L10]).

As for the verbal behaviours, i.e., repair, repetition, filled pause, and unfilled pause, there were two verbal disfluencies observed (i.e., filled pause and unfilled pause). Filled pause was present in two of his responses (i.e., *"Uh offer"* [O10/24/L10], *"Uh Subject"* [O10/108/L10]) while unfilled pause was observed to have occurred once (i.e., *"Because the people of 5 Bestari want to … (pause) … want to buy*" [O10/72/L10]). However, it was unclear whether the verbal disfluencies were not prominent during the observation as Shankar was generally limited in his length of answers, i.e., utterances with approximately three words and below.

4.3.5.4 Summary of Low CA Case Study 5 – Shankar. Shankar was a primary five learner who had low CA according to his English language teacher and the PRCF survey. His most dominant personality traits were extraversion and openness. Ms Lina also revealed that Shankar was open to criticisms and was not an emotionally sensitive learner. In addition, Ms Lina reported that Shankar had good English language proficiency and he did not struggle to answer questions. As Ms Lina predominantly asked a series of clarification and closed questions, most of the answers that Shankar gave were simple answers. Specific to the nonverbal behaviours, the behaviour that was frequently observed during interaction with his

teacher in the classroom was mutual gaze as well as glance away during instances of referring to the book. The other behaviours such as self-adaption, nods, and fidgeting, were observed to have not frequently occurred.

4.3.6 Cross-Case Analysis – Low CA

Similar to Study 2, an exploratory collective case study was conducted to explore the behaviours of young learners with low CA during interaction in English with their teacher in an ESL classroom. This section compares and contrasts the individual differences of learners across the five case studies, responses to teacher's questions, and the behaviours during classroom interaction. The similarities and differences within the five case study learners are shown through these six elements i.e., ethnicity, language at home, language in school, English language proficiency, communication apprehension, and personality traits. Table 4.2 depicts the similarities and differences between the five case studies.

Table 4.2

Low CA Case Study Learners' Table of Summary

	Case Study 1 VIVEK	Case Study 2 VINCENT	Case Study 3 GURMEET	Case Study 4 AARAV	Case Study 5 SHANKAR
Ethnicity	Indian	Chinese	Indian	Indian	Indian
Language at home	Tamil	Mandarin	English	English	Tamil
Language in school	Tamil	Mandarin	English	English	English
English language proficiency	poor	poor	good	good	good
Communication apprehension *PRCF score* [a]	25	21	21	24	19
Teacher's perspective	Low CA	Low CA	Low CA	Low CA	Low CA
Personality traits *Dominant personalities traits* [b]	extraversion openness	conscientiousness agreeableness	extraversion openness conscientiousness agreeableness	extraversion openness conscientiousness	extraversion openness
Teacher's perspective *General personalities*	extrovert sociable not sensitive accepts criticism	quiet obedient introvert	confident bold sensitive competitive dominant	not sociable confident accepts criticisms open-minded	accepts criticisms sociable not sensitive

Personality facets	outgoing friendly compassionate imaginative curious disorganised careless secure confident	reserved friendly compassionate rule-bound cautious efficient organised sensitive nervous	outgoing imaginative curious	imaginative, curious, efficient organised	efficient organised outgoing friendly compassionate secure confident

Note. [a] PRCF score is out of 70, lower number indicates lower CA. [b] Personality traits based on the PPTQ-C survey.

Vivek, Gurmeet, Aarav and Shankar were of Indian ethnicity, while Vincent was of Chinese ethnicity. Specific to the language that they spoke at home and in school, two case study learners (i.e., Gurmeet and Aarav) spoke English, while three other case study learners (i.e., Vivek, Vincent and Shankar) spoke their mother tongue. The three case study learners (i.e., Gurmeet, Aarav and Shankar) who reported to speak English with their friends, have been perceived by their teachers to have good English language proficiency. Although Vivek and Vincent were reported by their respective teachers to have poor English language proficiency, their teachers claimed that their language proficiency did not influence their CA. It was observed that regardless of the language proficiency, the low CA learners were less performance oriented than the high CA learners in Study 2 and were open to criticisms.

Based on the case study learners' self-perceived personality traits (PPTQ-C survey), the most dominant personalities traits among four learners (i.e., Vivek, Gurmeet, Aarav and Shankar) were extraversion and openness. Although this study found that the perceptions of teachers and learners were more congruent with each other than the perceptions on teachers and learners in Study 2, there were slight differences in some teachers' and learners' perspectives. For instance, Aarav had high extraversion score but Mr Daniel claimed that Aarav was neither outgoing nor reserved.

4.3.6.1 Responses to Teacher's Questions. The most common type of answers produced by all five learners were simple answers. Apart from the simple answers, collectively the second most common answers produced by the five case study learners were complete answers, while it was generally found that none of the five case study learners remained silent to their teacher's questions.

As emphasised in Study 2, the type of teacher questions may influence the type of learner responses. Similar to Study 2, the most common type of teachers questions were

closed and clarification type questions (i.e., 37 and 25 questions respectively). As such, it may be questioned whether the type questions asked (i.e., mostly closed and clarification questions) had influenced learners to mostly produce simple answers.

4.3.6.2 Behaviours During Classroom Interaction. Table 4.3 provides a depiction of the similarities and differences between the five case studies in relation to their verbal and nonverbal behaviours.

Specific to gaze behaviour, all five case study learners were observed to have maintained good eye contact with their teacher during interaction. Although Aarav and Shankar were observed to have glanced away during interaction with their respective teachers, it was found that they only glanced away to refer to their book in order to answer the questions. Their teachers also agreed that the five learners have a tendency to maintain eye contact during interactions in the classroom. This observation differs for learners with high CA in Study 2, as the five learners with high CA averted their eye gaze from their teacher throughout the interaction.

In regard to facial activities, smiling behaviour was observed to have been displayed by three learners i.e., Vivek, Vincent and Gurmeet. However, it was found that Vincent and Gurmeet smiled when the topic of interactions were particularly relevant to them personally. For instance, during Vincent's interaction with Ms Ooi, Vincent was talking about his favourite super hero, while during Gurmeet's interaction with Ms Nisha, Gurmeet was talking about her pet dog. Thus, their smiling behaviour may be indicative that they were enthusiastic about the topic (Rashotte, 2002). On the other hand, it was found that Vivek smiled during instances in which Vivek appeared to be unsure of the answers to Ms Padmini's questions, which was similar to the smiles observed among high CA learners in

Study 2, indicating that the particular smiling behaviour may be due to the lack of knowledge to answer the teacher's questions (Sert & Jacknick, 2015).

There were similarities and differences for the smiling behaviours observed among high CA learners from study 2 and low CA learners from study 3. Specific to the similarity of smiling behaviours among high CA learners and low CA learners, it was observed that learners from both studies smiled during instances in which they were (i) answering questions on topics of interest or topics that were of high relevance to them, and (ii) unsure of answers. However, high CA learners were observed to have smiled throughout their interactions with their respective teachers as well as during specific instances in which (i) they were being asked questions by their respective teachers, (ii) their names were called, (iii) they have responded and answered their teacher's questions, and (iv) they were unable to respond or answer the questions, while low CA learners were observed to have smiled during instances in which they were thinking of their answers. Based on these nuances, it is indicative that low CA learners may have a tendency to smile as a result of their cognitive processes (i.e., thinking of responses), while high CA learners may have a tendency to smile when they have been prompted to interact with their teachers (i.e., being asked questions by teachers and their names were called in the classroom). Thus, the findings of both Study 2 and Study 3 suggest that although all learners may engage in smiling behaviours, low CA learners have been found to smile only during specific instances while high CA learners have been found to have greater tendency to smile throughout interactions.

Another facial activity that was observed was the occurrence of high blinking rate. It was found that there were several instances during Vivek and Gurmeet's interaction with their respective teachers, blinking rates were above the average rate of blinks in a conversation (Bentivoglio, 1997). The particularly high rate of blinks were observed during the instances in which Gurmeet was producing answers and when Vivek was thinking and

structuring his response. Thus, there was no significant difference in the eye blinks observed between high CA and low CA learners. This particularly differs from the past studies on adult learners that have found significantly higher rate of blinks among anxious learners (e.g., Giannakakis, 2017; Gregersen, 2005; Lindberg et al., 2021). Thus, the findings of this study suggest that blinking rate may not be a good indicator of CA among young learners as compared to adult learners.

In relation to body movements, three out of five case study learners (i.e., Vincent, Gurmeet and Shankar) were found to have fidgeted while interacting in English with their teacher in the ESL classroom. Vincent and Shankar were found to have only fidgeted once, while Gurmeet was found to have fidgeted almost throughout her interaction with Ms Nisha. In line with Vincent and Shankar's fidgeting behaviour that was observed to have occurred once, their teachers i.e., Ms Ooi and Ms Lina, claimed that they usually do not fidget. In contrast, Ms Nisha revealed that Gurmeet fidgets out of habit, and this was in line with the classroom observation. In comparison, learners with high CA in study 2 were observed to have fidgeted more frequently as compared to the learners with low CA in this study. The second body movement behaviour that was particularly observed was self-adaption. It was found that Vivek, Aarav and Shankar engaged in self-adaption behaviours, i.e., touching of face, while interacting with their respective teachers in the classroom. In all three cases, it was observed to have specifically occurred during instances in which they were listening to their teacher's questions. This differs to the self-adaption behaviours that were observed among high CA learners in Study 2. High CA learners' self-adaption behaviours were paired with fidgeting behaviours.

Specific to verbal disfluencies, unfilled pause was observed among three case study learners i.e., Vivek, Vincent and Shankar. Out of these three learners, it was observed that only Vivek produced all four types of verbal disfluencies (i.e., unfilled pause, filled pause,

repetition, and repair), possibly due to his poor language proficiency, and struggles to answer the questions in English. In contrast to high CA learners in Study 2, the occurrence of verbal disfluencies among low CA learners were more frequently observed as low CA learners were more responsive to teacher questions than high CA learners. However, similar to Study 2, the frequency of verbal disfluencies may have been impacted by the nature of the interactions with the teacher which may have driven the learners to produce shorter answers.

Table 4.3

Low CA Case Study Learners' Behaviours

Behaviours	Case Study 1 VIVEK	Case Study 2 VINCENT	Case Study 3 GURMEET	Case Study 4 AARAV	Case Study 5 SHANKAR
Gaze	• maintains eye contact • gaze aversion while thinking/seeking help from friends	• maintains eye contact	• maintains eye contact	• maintains eye contact	• maintains eye contact
Body movements	• body shift • self-adaption • hand gestures	• fidget	• fidget	• self-adaption	• fidget • self-adaption • hand gestures
Facial Activity	• smile while thinking or responding • high blinking rate	• smile while thinking or responding	• smile while responding • high blinking rate	• nod	-
Verbal Disfluencies	• unfilled pause • filled pause • repetition • repair	• unfilled pause	-	-	• filled pause • unfilled pause

4.4 Discussion

Overall findings indicated that: (i) all five learners mainly produced simple answers and teacher questioning strategies have an influence on learner responses, (ii) there were specific nuances in the way in which specific behaviours occurred among low CA learners as compared to high CA learners, and (iii) extraversion and openness were dominant personality traits among four out of five learners. The discussion draws on the integration of results from the observation and the semi-structured interviews, which were presented in the preceding section. As this study was conducted to compare the behaviours of high CA learners in Study 2, this discussion section predominantly focuses on these behavioural differences between these two learner groups.

4.4.1 Quality of Learner Responses and Teacher Questions

One similarity between case study learners with high CA (Study 2) and learners with low CA (Study 3) was that the learners predominantly responded in simple answers. This may be due to the type of questions that were asked by their respective teachers in the classroom. In both studies, it was found that the teachers had mainly asked closed and clarification questions. Teacher questions play an important role in the quality of answers produced by learners (Erlinda & Dewi, 2014; Lee & Kinzie, 2012; Noor et al., 2012). The length of responses by learners are directly influenced by the type of questions by teachers (Erlinda & Dewi, 2014; Wright, 2016). It has been found that closed and display questions led to shorter responses in comparison to open and referential questions, while open questions elicited more complex sentence structures and varied vocabulary in learner answers (Erlinda & Dewi, 2014). This subsequently highlights the importance of Malaysian primary school teachers to explore and apply a wider range of questioning strategies in order to

promote rich and meaningful engagements in the classroom, beyond elicitation of simple answers.

An overview of learners' answers revealed that all case study learners in this study attempted to answer teacher questions and did not remain silent. When compared with the answers produced by learners with high CA in Study 2, there was an apparent difference. All five learners with high CA in Study 2 had a tendency to remain silent to teacher questions. It may be argued that language proficiency played a role (Farahian & Rezaee, 2012; Lee & Ng, 2009) as all five learners in Study 2 were found to have low English language proficiency. However, it is important to note that two learners with low CA in this study (i.e., Vivek and Vincent) were also found to have low English language proficiency, but nonetheless they attempted to answer all teacher questions. Thus, it can be drawn that learners with high CA generally have a tendency to not respond to teacher questions as a result of the CA experienced. A possible explanation is that learners' personality may have played a mitigating role in their attempts to answer teacher questions in the classroom. As indicated by Study 1, learners with lower levels of CA have higher openness trait, and this present Study 3 also has found that the five low CA learners were open to criticisms as asserted by their teachers. Thus, this is indicative that learners with low CA were less performance oriented, which was reflected in their attempts to answer all of the teacher questions rather than remaining silent as a result of fear of making mistakes or receiving negative criticisms for their mistakes in the responses. This is also consistent with past findings on adult learners that have indicated the relationship between CA and communication withdrawal (McCroskey, 1997). Learners with high CA have a tendency to avoid and withdraw from communication as a result of their anxiety (Beatty, 1987; McCroskey, 1997; Wheeless et al., 1986).

Another substantial finding that emerged from this study is the quality of answers produced. Based on the comparison between the responses by learners with low CA in this study and learners with high CA in Study 2, it was found that learners with low CA collectively produced more complete answers. In addition, there were also complex answers found to have been produced by one learner with low CA in this study, while learners with high CA in study 2 did not produce complex answers. This is in line with the findings of Gallego et al. (2022) as well as Murphy and Weber (2019) that showed higher levels of engagements in a conversation by learners with lower CA compared to learners with higher CA. This may be due to the anxious state that clouds learners' ability to think and respond to the questions asked by their teachers in the classroom (Cooper et al., 2018; Lukasik et al., 2019). More specifically, learners who experience high levels of CA may have a tendency to forfeit their mental preparation for their responses as their thoughts would most likely be focused on their anxious state (Choi et al., 2015). Thus, learners may experience disorganised thinking patterns as a result of their CA which subsequently affects the quality of answers produced in the classroom.

4.4.2 Behaviour of Learners with Low CA

The findings of this study highlights specific nuances in the behavioural markers through a comparison of the way in which the behaviours occurred, and its similarity and differences between low CA learners in this study and high CA learners in Study 2. These nuances in behaviours were found for gaze behaviours, facial activities (smiles and blinking rate), and body movement behaviours, which indicates that these behaviours cannot be used as individual cues for CA, but CA may be identified by a combination of these specific behaviours when they exceed a certain threshold.

4.4.2.1 Gaze Behaviours. The findings of this study showed that learners with low CA generally maintained eye contact with their respective teachers during interaction in the classroom. Although learners with low CA in this study engaged in glancing away behaviours, it was specifically observed during instances in which they appeared to be thinking. For instance, learners glanced away after the teacher's question and before producing their answers, while they maintained eye contact when the teacher was asking the questions and when they were answering the questions. Lack of eye contact can be a result of cognitive processes that learners engaged in. As glancing away may be a result of cognitive processes (Knapp et al., 2012), it is reflective of both high CA and low CA learners thinking of their responses to the teacher questions. Individuals may look away during instances of thinking and processing information (Richmond et al., 2012). However, as discussed in Study 2, learners with high CA generally did not maintain eye contact with their teachers during the interaction. While the teachers were asking the questions and while they were responding, learners were often found to have engaged in glancing away and gaze aversion behaviours. Thus indicative that the lack of eye contact among learners with high CA in Study 2 was a result of their CA, rather than cognitive processes.

4.4.2.2 Facial Activity. In regard to facial activity, smiling behaviour was observed among learners with low CA in this study. More specifically, three out of five learners were found to have smiled while responding to their teachers' question. Closer examination revealed that these learners smiled during instances in which they were talking about specific topics that were relevant to them. Specific to high CA learners in Study 2, smiling behaviours were observed in all five learners and it was prevalent throughout the interaction with their respective teachers. However, in contrast to low CA learners, this behaviour was observed to have more frequently occurred during instances in which high CA learners were thinking or

responding to the teachers questions. A possible explanation is that learners with high CA experience a feeling of discomfort associated with their anxiety (Anandari, 2015), therefore leading to smiles to mask their true feelings (Harris & Alvarado, 2005; Pitton et al., 1993; Zhiping & Paramasivam, 2013). The discomfort experienced was reflected during instances in which high CA learners in Study 2 smiled along with glancing away gaze behaviour.

Specific to blinking behaviour, there were a few instances in which Vivek's and Gurmeet's rate of blinks were above the normal blinking rate (i.e., 26 blinks per minute based on Bentivoglio's (1997) study), and rates were observed to have been elevated while they were answering the teacher's questions. Similarly, Study 2 also found that there were few instances in which Faris' and Ahmad's blinking rates were above the normal rate. Findings of Study 2 and Study 3 do not support the previous research by Giannakakis (2017), Gregersen (2005) and Lindberg et al. (2021) on adult learners, which found that the rate of blinks were significantly higher among anxious learners. It was evident that high blinking rates were also observed among low CA learners. The instances in which learners in Study 2 and Study 3 had high blinking rates may also have been due to the specific interactive contexts, i.e., listening and responding to questions (Hirokawa et al., 2004). As such, it can be drawn that high blinking rates observed in young learners may not be an appropriate behavioural indicator of CA.

4.4.2.3 Body Movements. In this study, fidgeting was observed during Vincent's, Gurmeet's and Shankar's interaction with their respective teachers in the classroom. Vincent and Shankar only fidgeted once respectively, while Gurmeet fidgeted throughout her interaction. However, based on the interview with Gurmeet's teacher, it was found that Gurmeet frequently fidgets out of habit, even when she was not engaged in interactions. In contrast, Study 2 found that fidgeting was a prominent behaviour among learners with high

CA as learners in Study 2 were generally found to have fidgeted throughout their interactions. Thus, it is conspicuous that constant fidgeting behaviour was dominant among high CA learners, while it was not entirely prominent among low CA learners. This was in line with past studies on adult learners that have found fidgeting to be behavioural manifestations of anxiety (Gregersen, 2005; Lindberg et al., 2021). Although fidgeting may be a particularly useful behavioural indicator of high CA among young learners during interaction, there needs to be caution is overgeneralising such behaviours as they may also be engaged in out of habit.

4.4.3 Personality and CA

Although the main aim of this study was to explore the behaviours of learners with low CA, it was also found that there was a trend observed specific to the personality of learners. The findings of this study showed that extraversion and openness personality traits were most dominant among the learners with low CA. Only one learner, i.e., Vincent, was found to have conscientiousness and agreeableness as his dominant traits. This is in contrast to the personality traits of learners with high CA in Study 2, which found that learners with high CA were dominant in agreeableness and conscientiousness personality traits. This generally supports the findings of Study 1, which found that extraversion and openness negatively predicted the CA scores. Thus, an overview of the dominant personality traits of learners with low and high CA respectively show that personality may be a factor that is relevant to young learners' CA.

4.4.4 Implications

Similar to study 2, this study has theoretical, pedagogical, and methodological implications specific to young learners with low CA in the context of English language classroom interaction. Firstly, the theoretical implication of this study is that we are aware of

the behavioural differences among learners with low CA and learners with high CA from Study 2. For instance, specific behaviours that may be common among high CA learners (i.e., glancing away, and smile) may be a result of anxiety, but when observed among low CA learners it appeared to be inclined towards a result of cognitive processes, due to the nuances in the behaviours observed. Secondly, one methodological implication of this study is that the development of future instruments should include the specific behaviours along with the nuances in the occurrence of these behaviours for the identification of CA among learners, along with established instruments such as McCroskey et al.'s (1981) PRCF. Thirdly, specific to pedagogical implications, the knowledge on the behaviours of young learners' with low CA from this study may be used by teachers as a guide to understand learners who are less anxious. More specifically, this study found that learners may glance away often when thinking of the questions asked, but it may not be assumed that they are anxious, rather it may be a result of their engagement in cognitive processes. Fourthly, the quality of teachers' questions were predominantly closed and clarification type questions, as observed in both Study 2 and Study 3, which may have had a direct influence on learners' quality of responses. As such, teachers need to use a wider range of questioning strategies to promote quality interactions in the classroom, beyond the elicitation of simple answers.

4.4.5 Limitations

As this study replicated Study 2, the limitations of this study are identical to the limitations of Study 2. First, the coding of behaviours was done based on the established coding system which was developed based on adult learners, and it is possible that there may be other behaviours outside of the coding scheme that we may not be aware of. Secondly, the observation of behaviours that were analysed in this study were based on one lesson. As such, due to the duration of the observations, the occurrence of certain behaviours may not have

been observed. Thirdly, brow movements could not be observed due to the use of mobile eye trackers as it obstructed the view of learners' eye brows.

4.4.6 Conclusion

The present study explored the behaviours of learners with low CA during interaction with the teacher in the ESL classroom. Based on the survey from Study 1, the case study learners were selected as well as the scores of their CA and personality traits were obtained. The young learners that this study examined were five Malaysian primary school learners, i.e., Vivek, Vincent, Gurmeet, Aarav and Shankar. To answer the research question (i.e., How do Malaysian primary school learners with low CA behave when answering teacher questions in English in the ESL classroom?), observations and interviews were conducted. This study has shown that there are specific behaviours (i.e., mutual eye contact, smile while responding to questions) that are prevalent among young learners with low CA during interaction with their teacher in the ESL classroom.

As a result of a comparison made between learners with high CA (Study 2) and learners with low CA in this study, it was found that there were significant differences i.e., responses to teacher questions, nonverbal behaviours, and personality traits. In regard to learner responses, it was found that learners with low CA in this study produced more complete and complex answers than learners with high CA in Study 2. Specific to nonverbal behaviours, low CA learners in this study maintained good eye contact and fidgeted less as compared to high CA learners in Study 2. It was also found that the smiling behaviours were different as learners with low CA smiled while responding to teachers' questions on topics that they may have been enthusiastic about, while high CA learners in Study 2 generally smiled throughout their interactions with their respective teachers and during specific instances (e.g., when they were being asked questions by their respective teachers, when their

names were called and they were unable to respond or answer the questions). In regard to personality traits, this study found that extraversion and openness personality traits were most dominant among the learners with low CA while learners with high CA in Study 2 were dominant in agreeableness and conscientiousness personality traits.

When a comparison is made with past studies on adult learners, it was also found through these two studies (i.e., Study 2 and Study 3) that there is a difference in the behavioural cue of CA among young learners and adult learners. For instance, past studies on adult learners found that the rate of blinks were significantly higher among anxious learners, however, this study showed that high blinking rates were also observed among low CA learners. Therefore, unlike adult learners, young learners' blinking behaviours may not be a good indicator of CA and there needs to be caution in overgeneralising behaviours found to be prominent among adult learners to be applicable to young learners. In addition to the knowledge obtained on behaviours and traits associated with young learners' CA, to obtain a holistic understanding of CA phenomenon among young learners, there is a need to examine teachers' perspectives and understanding. This would provide insight to the current understanding of CA among in-service teachers and the strategies applied in supporting learners with CA. As such, the following chapter will explore teachers' overall perceptions of young learners' CA.

CHAPTER FIVE: STUDY 4 – TEACHERS' PERCEPTIONS OF YOUNG LEARNERS' COMMUNICATION APPREHENSION

Past studies have shown that approximately 20% to 40% of learners from different countries e.g., Malaysia, Portugal and United States experience high CA (Loureiro et al., 2020; McCroskey, 1977; Mustapha, 2010). In fact, McCroskey (1977) argued that "no instructor, with the possible exception of the teacher of a voluntary class in public speaking, is likely to ever face a class that contains no high communication apprehensive students" (p. 33). A wide area of educational research such as studies on learner motivation, teacher-learner relationship, learner achievement and attributes, have established that teachers' perceptions of learners contribute valuable information that may be used as a tool in understanding learners (e.g., Hardre et al., 2008; Rubie-Davies, 2010; Schappe, 2005). Specific to learner anxieties, studies have sought the experiences and perceptions of teachers in order to strengthen the understanding of learners' anxieties (e.g., Chuang, 2019; Inada, 2021; Tran, Baldauf & Moni, 2013). As young learners may not be entirely able to reflect and provide a comprehensive overview of their anxiety experiences due to their development of cognitive functioning that may only begin to develop during mid adolescence (Borgers et al., 2000), it is an added advantage that teachers have been found to be a reliable source of information to expand our current understanding of young learners' anxieties.

In this chapter, I present Study 4, which aimed to explore English language teachers' perceptions of Malaysian primary school learners' communication apprehension. A qualitative research design was used through semi-structured interviews conducted with six Malaysian primary school English language teachers.

5.1 Background

Teachers' perceptions are important as teachers are engaged with learners on a daily basis and are specifically engaged with learners in the classroom context (Mak, 2011; Tran & Moni, 2015). A past study by Gregersen (2007) showed that teachers' ratings of learners' anxiety levels appeared to be accurate and reliable, especially in identifying highly anxious and non-anxious learners. Thus it may be asserted that teachers are in a good position to provide observational insights on young learners' CA phenomenon. In addition, teachers' perceptions of their learners also influence their decisions and practices in the language learning classrooms (Agustrianita et al., 2019; Pettit, 2011; Rizzuto, 2017). Rizzuto, (2017) argued that when teachers perceived that learners do not have the knowledge and ability to engage in the specific topic, teachers deliberately used specific approaches in promoting learner engagements in the specific topic. Agustrianita et al. (2019) showed that when teachers perceived that their learners preferred learning in groups, they incorporate more group based activities in their lesson planning.

5.1.1 Teachers' Perceptions of Communication Apprehension

An overview of studies on CA that have examined teachers' perceptions revealed that the focus has mainly been on causes, implications, and mitigation strategies (e.g., Carter & Hansford, 1999; Molnar & Crnjak, 2018; Watson & Monroe, 1990). As such, this section reviews the literature on these three specific themes.

5.1.1.1 Teachers' Perceptions of the Causes of Learners' Communication Apprehension

Apprehension. Past studies that explored teachers' perceptions of the causes of learners' anxieties in relation to speaking revealed that teachers mainly perceive fear of evaluation, and the lack of proficiency and fluency in the language to be the main reasons for learners' CA

(He, 2013; Molnar & Crnjak, 2018). Learners' fear of negative evaluation is associated with being afraid of making mistakes and consequently being judged by their peers for their mistakes (He, 2013). Teachers perceived that fear of being evaluated is also directly linked with learners' lack of language proficiency (Asif, 2017), which therefore reduces learners' ability to engage in the interaction, and subsequently withdrawal from interactions. Ironically, although teachers did not view lack of content knowledge to be a causing factor of learners' anxiety, learners related their lack of knowledge with their anxiety (Cepon, 2016). Cepon (2016) and Hachfeld et al. (2010) further argued that teachers may not necessarily be good evaluators of their learners' content knowledge in classroom interactions, and that they often overestimate their learners' capabilities. Their overestimation of learners' content knowledge limited the use of scaffolding which then leads to communication difficulties and CA among learners in the classroom. The observation and teacher interview findings of Study 2 and Study 3 showed that learners' language proficiency did limit their responses, a lack of openness too criticism were related to the learners with high CA but not low CA. Study 4 therefore examined further the teachers' views about the causes of CA.

Teachers who have a good understanding of learners' anxiety and the causes are able to address learners' anxiety through proper support and guidance (Chuang, 2019; Horwitz, 2017). For instance, when teachers are aware that their learners are fearful of negative evaluation in the classroom, they create a safer and more comfortable environment that eliminates negative evaluation in the classroom (Horwitz, 2017). Similarly, teachers' awareness of language proficiency as a contributing factor to learners' anxiety prompts teachers to provide explicit instructions to improve learners' language proficiency with the aim of mitigating learners' anxieties in the classroom (Tran & Moni, 2015).

It has been established that there are differences in the contributing factors to learners' anxiety based on cultural contexts (Horwitz, 2001; Kim, 2010). Classroom practices

perceived to be comfortable by one group of learners may be stressful for learners from a different cultural context (Horwitz, 2001). This may be due to the differences in educational agendas and traditions regarding language instruction (Kim, 2009). For instance, the Chinese educational context is predominantly exam oriented whereby the focus of language learning is on the writing skills, and it has been found that learners' anxieties were caused by the fear of making mistakes as they lacked practice on the spoken form of English language (Jiang & Dewaele, 2019). However, in the Vietnamese context, learners' anxiety in relation to English language were predominantly driven by learner related factors which include EFL learning ability, attitudes to language learning, prior negative experiences, and psychological factors (Tran, Moni & Baldauf, 2013). Specific to the Malaysian context, adult and secondary school learners' anxieties may be caused by factors such as fear of the English language, negative evaluation, and making mistakes (Aziz & Kashinathan, 2021; Chin et al., 2016; Wathumalai & Shah, 2022). However, it is unclear whether these causes parallel anxieties experienced by young Malaysian learners, and whether Malaysian primary teachers would perceived these as the contributing factors to Malaysian primary school learners' CA.

5.1.1.2 Teachers' Perceptions of the Implications of Learners' Communication Apprehension.

Based on their experience of learners with CA, past studies revealed that teachers observed both negative and positive CA implications on learners. Tran, Moni and Baldauf (2013) showed that teachers perceived prolonged anxiety to be negatively affecting the learning process, and learners with the trait of pessimism and tendency to be disappointed when facing challenges exacerbate the debilitative effects of anxiety. In another study, Tran and Moni (2015) argued that teachers also believed that they could generate facilitative effects of learners' anxiety by using the anxiety to promote motivation to work harder in the classroom. However, this facilitative role of learner's anxiety can only be realised when the

level of anxiety experienced by learners are at an optimal level and when learners consciously interpret their anxiety as facilitative instead of threatening (Azarfam & Baki, 2012; Strack & Esteves, 2015). It has also been argued that facilitative and debilitative anxieties experienced by learners are not separate constructs, they work in tandem as learners may experience both facilitative and debilitative effects of anxiety at the same time (Jahangiri et al., 2014). As such there is a need to consider both possibilities in examining and understanding learner related anxieties.

Regardless of the negative or positive implications that CA may generate, it is important for teachers to have awareness of those possible implications because their understanding of implications influence their classroom practices. Teachers who lack awareness of the consequences of learners' anxiety have a tendency to not address learners' anxieties, more specifically their classroom practices would not be focused on mitigating learners' CA (Tran, Baldauf & Moni, 2013). Past studies that have examined the implications of learners' CA were focused on adult learners (e.g., Jahangiri et al., 2014; Tran, Moni & Baldauf, 2013; Quinto & Macayan, 2019). This is therefore important to be further examined in this study as it would provide us with a better understanding of the possible implications of CA specific to young learners, as well as provide insights on the teachers' understanding of the importance of addressing learners' CA.

5.1.1.3 Teachers' Perceptions of the Mitigation Strategies for Learners' Communication Apprehension.

There are various strategies that have been identified to be effective in mitigating CA. The effective remediation that align with the social learning paradigm aim to enhance communication context through mentoring, active learning tasks, and multidimensional model. Mentoring (Jones & Procopio, 2017), the use of films (Razak et al., 2021) and active learning strategies such as game-based and activity-based tasks (Lie,

2018) have been found to significantly reduced levels of CA among learners. The use of a multidimensional model which involves appraisal of symptoms based on seven dimensions (i.e. behaviour, affect, sensation, imagery, cognition, interpersonal relationships, physical well-being) has also been found to be highly effective in reducing the anxieties specific to public speaking, interpersonal conversation, group discussion, and meeting contexts, in comparison to skills training method (Dwyer, 2000). On the other hand, in line the communibiology paradigms' aim to help individuals cope with CA, strategies such as imagined interactions and positive self-talk have been found to be effective to mitigate CA. Self-reinforcing self-talk (Shi et al., 2015) and imagined interactions, i.e. using mental imagery pre and post interaction, (Honeycutt et al., 2009) have been associated with lower CA.

In general, studies showed that teachers perceptions of CA mitigation strategies revolved around creating an environment that encourages learners' interaction in the classroom. More specifically, teachers viewed that creating a positive and safe environment to be highly effective (Carter & Hansford, 1999; Inada, 2021; Molnar & Crnjak, 2018; Tran & Moni, 2015). A positive and safe environment include not criticising learners for making mistakes, encouraging learners to freely express their anxious feeling as well as providing support for learners who are unable to communicate as good as other learners in the classroom (Inada, 2021). Teachers' who are positive, humorous, happy, well-organised and respectful of learners, were found to result in a positive learning environment and valued by learners (Dewaele & MacIntyre, 2014; Dewaele et al., 2019). In addition, the atmosphere that a teacher creates in the classroom also influences how learners' behaviours are shaped as teachers who are supportive of learners' mistakes would then influence learners to also be supportive with their peers in the classroom (Osterman, 2010).

Another strategy perceived by teachers to be effective in mitigating learners' CA is encouraging learners to interact with peers in the classroom (Carter & Hansford, 1999; Inada, 2021; Molnar & Crnjak, 2018; Tran & Moni, 2015). Teachers perceived that learners should be given opportunities to interact by incorporating topics that are of interest to learners in order for them to interact in the classroom as it will eventually build learners' confidence levels (Carter & Hansford, 1999; Tran & Moni, 2015). This parallels the evidence of past studies that have suggested the more learners are exposed to interactive contexts, the less apprehensive they will eventually be (Alrabai, 2015; Lie, 2018). Specific to interactive strategies, it has also been found that incorporating game-based activities promotes learner engagements in classroom interactions, which subsequently mitigates their anxiety levels (Lie, 2018).

Apart from creating a safe classroom environment and encouraging learner interactions, teachers have also perceived that incorporating pair and group discussions as well as providing sufficient time for learners to prepare to be important in mitigating their anxiety levels (Carter & Hansford, 1999; Inada, 2021; Molnar & Crnjak, 2018; Tran & Moni, 2015). Teachers viewed that group activities enables learners to participate in a less stressful manner and have a positive relationship with peers which subsequently leads to the development of a non-threatening classroom environment (Inada, 2021; Tran & Moni, 2015). This view corroborates findings that showed learners also preferred to work with their peers in pairs or in groups as they view it to be an opportunity for them to practice using the language in a less stressful manner as well as to be less anxiety provoking (Gregersen et al., 2014; Liu, 2006). In addition, teachers have also emphasised the importance of providing learners with sufficient time to prepare their responses as it enables them to feel less anxious when responding to teachers' questions or sharing their views in the classroom (Molnar & Crnjak, 2018).

Although various effective strategies have been identified, teachers have also emphasised that there is no single strategy that is effective in mitigating learners CA, instead the use of diverse strategies are deemed most effective (Carter & Hansford, 1999; Tran & Moni, 2015). Carter & Hansford (1999) and Ginsburg et al. (2021) argued that each teacher had their own belief of what was the most effective strategy in reducing learners' CA but may not necessarily have the awareness and knowledge of specific evidence-based strategies. Teachers were found to favour specific mitigation strategies based on their understanding of their learners' needs and backgrounds. Similarly, Tran and Moni (2015) asserted that teachers are aware of the challenge in using strategies that may be effective for some learners but not all. Therefore, it is important for teachers to have awareness of the possible strategies in mitigating CA and the strategies that are particularly effective for their respective learners.

Evidently, teachers use of strategies in the past have suggested effective ways to mitigate learners' CA. However, the effective CA mitigation strategies from the teachers' perspectives have been predominantly focused on adult learners (e.g., Inada, 2021; Molnar & Crnjak, 2018; Tran & Moni, 2015) while there is limited knowledge on teachers' perspectives of CA mitigation strategies specific to young learners (e.g., Carter & Hansford, 1999). There is a need to identify relevant strategies to mitigate young learners' CA as the effectiveness of strategies may differ according to learners' age (Barrett et al., 2001; Garnefski et al., 2002). Garnefski et al. (2002) compared the use of cognitive coping strategies (e.g., refocus on planning, positive refocusing) for anxieties among adolescence and adults, found that adults effectively used more cognitive coping strategies than adolescents. In addition to the effectiveness of strategies, learners' age may also be a factor that in teachers' use of strategies to mitigate learners' anxieties (Nyborg et al., 2022).

Classroom strategies in general are also known to differ based on cultural contexts. These cultural differences in classroom strategies have been found to differ in regard to

mistake-handling, grammar instruction as well as learners' preference of strategies. For instance, the way in which mistake-handling strategies are implemented in the classroom have been found to differ across cultural contexts e.g., Italian and American contexts (Santagata, 2004). In Italy, mistakes are openly discussed and emphasised, while in the United States mistakes are commonly mitigated through praises for efforts. Specific to grammar acquisition, there have been differences in perceptions of explicit learning of grammar structures and rules among teachers in the Colombian and American contexts as Colombian teachers preferred teaching strategies to be focused on grammar as compared to American teachers (Schulz, 2001). In addition, learners' preferences of strategies have also been driven by cultural background as rote memorization was predominantly preferred by Asian learners as compared to Hispanic learners (Oxford, 2011). Given the disparity between teachers' knowledge of CA and their classroom practices, it is therefore important to understand how teachers of a particular context such as the Malaysian context, manage CA among young learners.

5.1.2 Teachers' Classroom Practices and Role

Teachers' classroom practices can be reflected through their teaching methods (Birgili et al., 2016), motivational strategies (Hapsari, 2013), classroom management strategies (Kurdi et al., 2018; Tillery et al., 2010), classroom feedbacks (Unlu & Wharton, 2015), and their strategies in teacher-learner interactions (Wang et al., 2019). Teachers' classroom practices have an impact on learners' enjoyment, engagement, motivation and academic achievement. Firstly, learners' enjoyment in the language learning process is dependent of teachers' classroom practices such as the implementation of teacher recognition and the incorporation of group activities and role plays (Dewaele & MacIntyre, 2014; Dewaele et al., 2018). Secondly, the implementation of classroom strategies such as authentic, engaging and

real-world tasks increases learners' motivation to be engaged in the classroom activities (Darling-Hammond et al. 2020). Thirdly, teachers who use internally focused strategies such as tasks that are focused on interpersonal relations with learners and tasks that connects education with areas that are highly valued by learners, positively influences learners' motivation in the classroom (Hardre & Sullivan, 2009). Fourthly, teachers' classroom practices played a more significant role in learners' academic performance compared to learner related factors i.e., learner backgrounds (Wenglinsky, 2002). In line with the impact that teachers' classroom practices have on learners, it may be argued that teachers' perceptions of learners have an indirect impact on learners as their perceptions may have mediated their classroom practices (Agustrianita et al., 2019; Rizzuto, 2017).

Teachers' classroom practices also affect anxious learners' emotions (Alrabai, 2015; Cooper et al., 2018; Kurdi et al., 2018), which may then affect learners' perceptions of school, engagement and academic performance further. It has been established that teachers played a significant role in enhancing learners' positive perceptions of school as teachers who demonstrated respect and care for learners had significantly led to learners positive perceptions of school (Hallinan, 2008). Kurdi et al. (2018) showed that teachers who implemented structured practices such as explicit rules and clear expectations from the beginning of the school year led to greater confidence and academic outcomes among anxious learners in the long run. Therefore, it is important for teachers to establish a clearly defined environment in order for anxious learners to have a better idea of the teacher expectations and goals, in which they can work towards and gradually gain more confidence. In addition, the implementation of active learning strategies by teachers such as group work in the classroom has been found to have both a positive and negative influence on learners' anxiety levels (Cooper et al., 2018). For instance, in the implementation of group activities, when learners were comfortable with their peers their anxiety level decreased, while their

anxiety increased when they were made to work in groups that consisted of peers that they were uncomfortable to work with.

Specific to young learners' CA, the learners' environment plays an important role in their CA. Young learners who have high CA have a tendency to experience social disparagement as a result of their school or classroom environment i.e., negative peers' reactions, and evaluation (Carabeo & Juanillas, 2022). Although young learners may be able to cope with the implications of CA, their developmental trends in coping dimensions (e.g., problem solving, seeking social support, palliative coping, externalising emotional coping, and avoidant coping) differ from adult learners as younger learners' coping strategies are more focused on palliative behaviour, avoiding and seeking social support (Vierhaus & Lohaus, 2009). Thus, it is evident that the pattern of coping of young learners is not directly goal-oriented, but the direct coping and primary control of anxiety increases with age. This is when teachers intervene by playing an important role in creating a safe and positive environment to support and help young learners overcome their CA (Carter & Hansford, 1999). Especially in the classroom, teachers have the responsibility to create an environment that would enable young learners to be comfortable to communicate and not fear being judged by others.

The relationship between teachers and learners has also been found to be important in shaping learners' learning process. Affective quality of teacher-learner relationship positively influences learner engagements and achievements in the classroom (Darling-Hammond et al. 2020; Fredriksen & Rhodes, 2004; Lee, 2012). Supportive relationships between teachers and learners may motivate learners to be more actively engaged in the classroom interactions (Fredriksen & Rhodes, 2004). More specifically, learners may also be open to seeking emotional and academic support from teachers when there is a warm teacher-learner relationship established in the classroom. In addition, when there are positive teacher-learners

relationships, it leads to increased effort among learners in the learning process especially when learners' internalised academic values and efforts are openly appreciated by teachers (Lee, 2012). Specific to anxiety, it has also been established that learners experience greater anxiety levels in the language learning classroom when they perceive their teachers to not be friendly (Dewaele et al., 2019; Malik et al., 2021). Teachers who are friendly with their learners have been found to create a nonthreatening classroom environment which subsequently enables anxious learner to be more comfortable in the learning process (Hashemi & Abbasi, 2013, He, 2017). However, Dewaele et al. (2018) found that learners' attitudes towards teachers did not have an influence on learners' anxiety as learners were equally anxious with teachers that they liked as well as with teachers that they were not entirely comfortable with.

In line with the importance of teachers' role in young learners' CA, it is important to address CA as early as possible (Carter & Hansford, 1999; Coetzee et al., 2014), there is a need to examine the awareness and practices of teachers in addressing young learners' CA. Our understanding of CA specific to young learners would be further strengthened with the knowledge of teachers' perspectives and through a comparison with literature, the findings of this study may subsequently inform the anxiety differences that may exist between young and adult learners.

5.1.3 The Current Study

The aim of this study is to explore English language teachers' perceptions of Malaysian primary school learners' communication apprehension. In accordance with the aim of this study, the main research question that this present study seeks to answer is:

RQ 4: How do English language teachers' perceive Malaysian primary school learners' communication apprehension?

The perceptions of teachers in this study were focused on their understanding of the causes, characteristics (i.e., traits and behaviours), impact of CA as well as their perceived CA mitigation strategies.

5.2 Method

5.2.1 Research Design

A qualitative inquiry was used to derive "depth of meaning and people's subjective experiences and their meaning-making processes" (Leavy, 2017, p.124). In this study, I examined the teachers' perceptions and subjective experiences on young learners' CA, and their interpretation of the CA phenomenon in the classroom context. More specifically, an interview approach was used to obtain teachers' perceptions because it allows detailed views to be obtained (Creswell, 2014).

5.2.2 Participants

This study focused on Malaysian primary school English language teachers. The participants of this qualitative study were the six teacher participants in Study 2 and Study 3. The background information of the six participants of this study is shown in Table 5.1. These six participants were from Malaysian primary schools situated in Kuala Lumpur, Selangor and Negeri Sembilan, comprising five females and one male. Each teacher had at least a bachelor degree and at least five years of experience teaching English to primary school learners.

Table 5.1

Demographic Data of Teacher Participants

Teacher	Gender	Teaching Experience (years)	Highest Qualification	School Type	School Location
T1 – Ms Padmini	Female	6-10 years	Bachelor degree	National Type Tamil (Co-ed)	Semenyih (Selangor)
T2 – Ms Ooi	Female	> 20 years	Bachelor degree	National Type (Boys)	Seremban (Negeri Sembilan)
T3 – Mr Daniel	Male	1-5 years	Bachelor Degree	National Type (Boys)	Sentul (Kuala Lumpur)
T4 – Ms Lina	Female	16-20 years	Bachelor Degree	National Type (Boys)	Sentul (Kuala Lumpur)
T5 – Ms Nisha	Female	16-20 years	Post-graduate diploma	National Type (Co-ed)	Seremban (Negeri Sembilan)
T6 – Ms Menakshi	Female	6-10 years	Post-graduate diploma	National Type Tamil (Co-ed)	Semenyih (Selangor)

5.2.3 Research Instrument

Part of the interview questions from the semi-structured interviews conducted with the English language teachers in Study 2 and Study 3 were used in this study. The interview questions on learners' CA analysed for this chapter were derived from the findings by Carter and Hansford (1998) as well as Tran, Baldauf and Moni (2013), while the interview questions on teachers' classroom practices were formulated based on the broader literature beyond CA (i.e., Birgili et al., 2016; Hapsari, 2013; Kurdi et al., 2018; Tillery et al., 2010; Unlu & Wharton, 2015; Wang et al., 2019). The questions for the interview are in Appendix G.

5.2.3.1 Pilot Study. As reported in Chapter 3 (Study 2), two Malaysian primary school teachers were involved in the pilot study that evaluated the (i) appropriateness of the interview questions, (ii) logical organisation of the interview, and (iii) the length of the interview. Upon conducting individual interviews with the two participants, it was generally found that interview protocol was suitable for this study as the responses generated were indicative of teachers' reflecting on their experiences and perceptions, their elaborations generally did not overlap throughout the interview, and the way in which the questions were phrased was understood by the teachers. However, specific to the interview questions for this particular study, it was found that two questions had to be refined. Firstly, the question "Do you see high levels of communication apprehension among your students?" elicited only yes or no responses thus was modified to "How do you identify communication apprehension in your students?". Secondly, another question i.e., "In general, tell me about the communication apprehension of students" was rephrased to "Do you feel communication apprehension is an issue in your classroom?" The sequence of the interview questions were also changed. Questions pertaining to the teachers' general view on CA were presented first, prior to focusing on CA of specific learners, Lastly, the length of the interviews was found to be appropriate as both the interviews took approximately 45 minutes.

5.2.4 Data Collection and Analysis

5.2.4.1 Data Collection Procedure. As the semi structured interviews conducted for this Study 4 were an extension of the interviews conducted in Study 2 and Study 3, in this section I provide a summary of the data collection process that took place, as the detailed account of the interviews have already been reported in Chapter 3 (see Section 3.2.4.1). Upon obtaining the teacher participants' consents, the interviews were then conducted at their preferred time and respective schools, and audio recorded. After the interviews, I transcribed

their responses and validated their responses through member checking (Birt et al., 2016). The participants were requested to fill out an interviewee transcript approval form that focused on (i) accuracy of the content, (ii) corrections to be made to the transcripts, and (iii) requests for removal of statements. See Appendix L for the interviewee transcript approval form.

5.2.4.2 Data Analysis. Similar to Study 2 and Study 3, in the interview transcripts each utterance was given a reference code in the sequence of; (i) the event (i.e., teacher interview - TI), (ii) the utterance number, (iii) participant code, e.g., [TI3/40/T3]. These reference codes are used throughout this study. The semi-structured interviews were analysed using thematic analysis which is an approach first established by Braun and Clarke (2006), to identify, analyse and report the themes that emerged from the data. More specifically, this study employed the reflexive approach of thematic analysis which is aimed providing "a coherent and compelling interpretation of the data, grounded in the data" (Braun et al., 2019, p.848). The reflexive thematic analysis was guided by the following six phases of analysis as outlined by Braun et al. (2019); familiarisation, generating codes, constructing themes, revising themes, defining themes, and producing the report.

First, I familiarised myself with the data (i.e., interview transcripts) by reading and noting the initial ideas that I obtained from the data. Once initial ideas were drawn from the data, I manually coded relevant features of the data. I took on a deductive orientation to coding whereby the generation of codes were led by prior knowledge or literature, rather than the data (Braun & Clarke, 2006; Braun et al., 2019). In addition, I generated semantic (i.e., explicit) and latent (i.e., implicit) codes which captured both the surface and conceptual meaning based on the utterances of the teacher participants. Table 5.2 shows the example of codes generated from the interview transcripts.

Table 5.2

Example of Codes Generated.

Data	Code
They mainly fear negative evaluation by others around them. [TI2/22/T2]	• Fear of negative evaluation
Another thing is how comfortable they are with the teachers. Some students like that are very comfortable with the teachers, they don't mind, they can become very comfortable and everything and they are willing to try. But some of them are just not comfortable, they just don't have the chemistry, so maybe that's why they're very anxious. [TI6/34/T6]	• Relationship with teacher
Yeah, we should also, maybe not push them too much, because that is their character, you know, you can make them come out of it, you know, so we work along with that maybe they can personally come in talk to maybe they can share the idea with their friends, instead of a teacher, you know, something like that. [TI1/37/T1]	• Avoid forceful interactions • Encourage interaction with peers
They will like, look away, they will look down, you know, those kind of things we already know, when they like "uh uh uhm". [TI1/47/T1]	• Eye contact • Verbal disfluencies
Those with higher CA will have lower self-esteem. They will also be more sensitive. They also feel very difficult to open up, they take time to open up, so we will have to talk to them and you realise they can actually communicate but they feel anxious to do so. [TI2/32/T2]	• Sensitive • Self-esteem • Introvert

I then organised the codes into potential themes that captured the essence of teachers' perspectives of learners' CA (e.g., causes of CA, implications of CA). Braun et al. (2019) highlighted that "themes do not fully emerge from data" (p.854), as such the themes gathered in this study were informed by the knowledge obtained from literature. Once the potential themes were identified, I reviewed the themes and generated a thematic analysis map to demonstrate the interconnection among these themes. The themes were then further refined by identifying appropriate names to represent each theme. Lastly, the results were reported based on the finalised themes.

5.3 Results

Five themes were generated i.e., causes of CA, characteristics of CA, implications of CA, and CA mitigation strategies, as well as general classroom practices. Figure 5.1 illustrates the thematic map which explains the relationship between the established themes. The analysis pointed towards an interconnection between the teachers' perceived causes and mitigation strategies, and a misalignment between their perceived mitigation strategies and reported classroom practices. The organisation of the analysis section is driven by the themes identified. Figure 5.2 illustrates the structure of this section.

Figure 5.1

Thematic Map

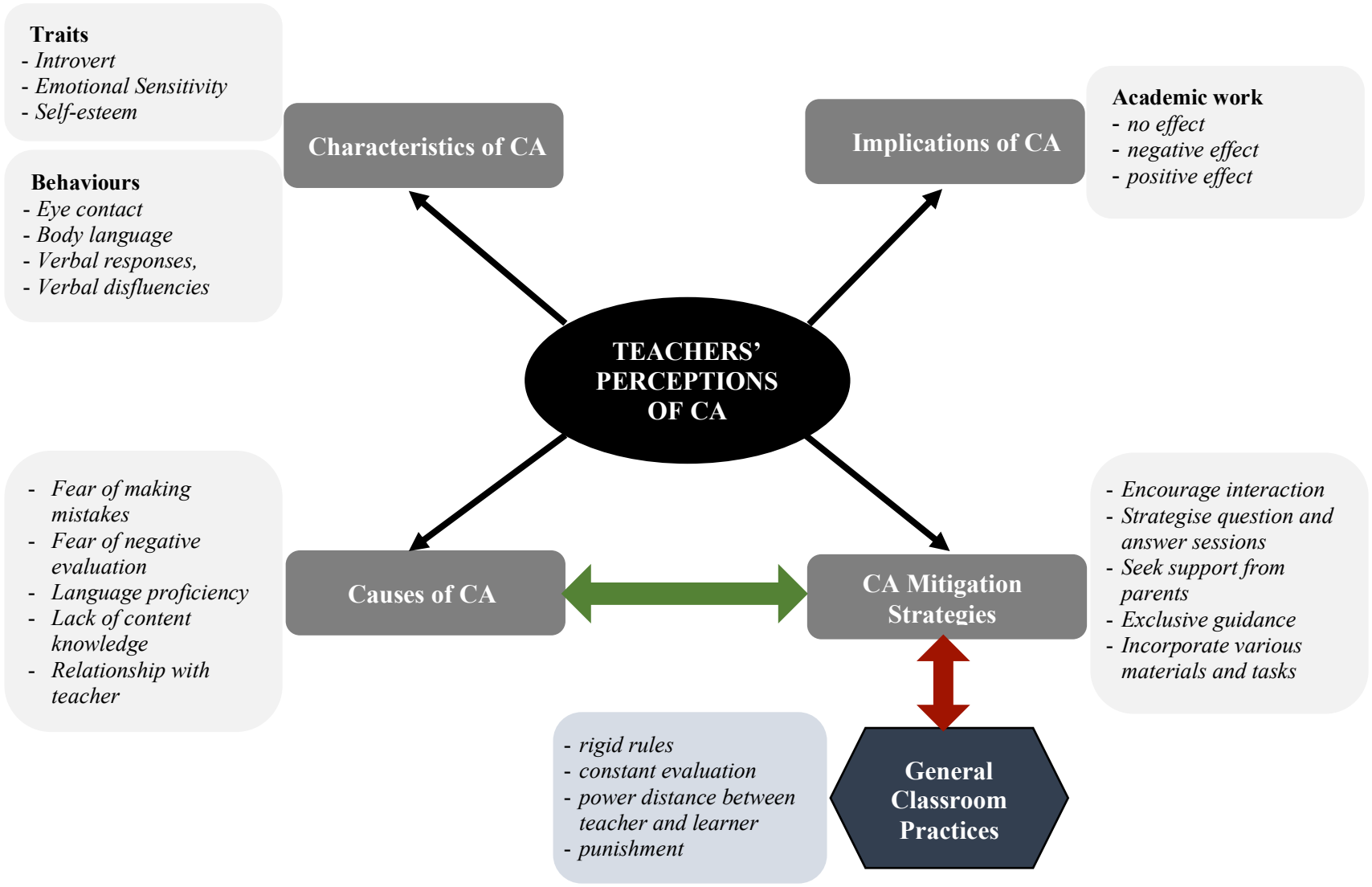
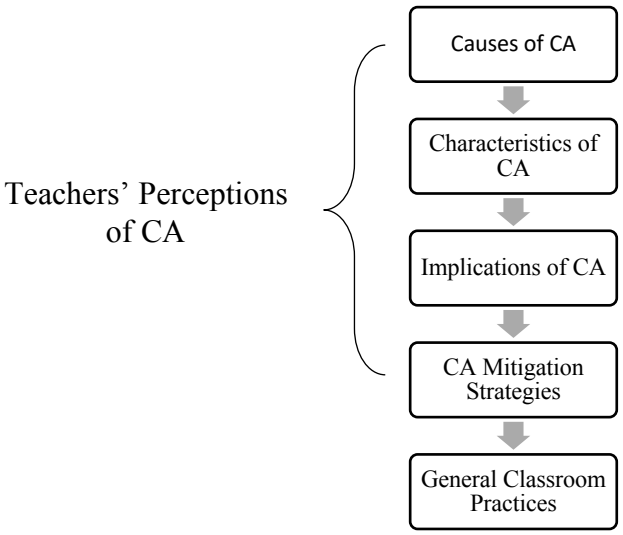


Figure 5.2

The Order of Analysis



5.3.1 Causes of Communication Apprehension

This theme embodies teachers' perceptions of the possible causes of CA among learners. The teachers believed that CA could be attributed to, (i) fear of making mistakes, (ii) fear of negative evaluation, (iii) language proficiency, (iv) lack of content knowledge and (v) relationship with teacher. Out of these perceived causes, the most frequently reported cause of learners' CA were fear of making mistakes and fear of negative evaluation, which are also supported by past findings (e.g., Hsu, 2004; Matsuoka, 2008).

5.3.1.1 Fear of Making Mistakes. Three teachers believed that learners develop CA because of their fear of making mistakes during interactions. This view is supported by past studies that showed fear of making mistakes could indeed lead to learners' CA (Matsuoka, 2008; Tiono & Sylvia, 2004). Ms Padmini elaborated that fear of making mistakes occurred when learners lack the confidence and were unsure of the answers:

> *I think that only sets in when they have no confidence la, basically, you know, they are not sure and they are hesitant to*

> *speak and all that is because they, they feel that they might make mistakes when they talk*. [TI1/21/T1]

In addition, Mr Daniel highlighted that fear of making mistakes was also due to their lack of practice in using the English language. He stated that "*For example when we ask "can you tell me what you did during the holidays?" they can't even respond because they don't practice using the language and therefore the fear of making mistakes"* [TI3/19/T3]. Another teacher, Ms Menakshi, claimed that one particular learner of hers was fearful of giving incorrect answers as she had a positive image that she believed was important to uphold. This subsequently led to her CA in the classroom:

> *There was one girl right, she's the best student, and she does that so like they have that thing you know, that fear of getting things wrong, getting the answer wrong … and she mustn't be wrong. You know, that I have to be correct. I think she has the thing in her which makes her more apprehensive.* [TI6/38/T6]

5.3.1.2 Fear of Negative Evaluation. Three teachers indicated learners' fear of negative evaluation as another cause of their CA. Ms Ooi stated that "*They mainly fear negative evaluation by others around them*" [TI2/22/T2]. More specifically, one teacher highlighted that learners have CA due to their fear of being criticised by others, as Mr Danial claimed "*… fear that they will be criticised*" [TI3/19/T3]. Ms Menakshi related fear of negative evaluation to fear of making mistakes by referring to the same student:

> *Fear of negative evaluation because it has already been painted that she's the kind of student you know that needs to keep up to standard. So I think there's a reason why she doesn't want to be caught wrong and that's the reason why she's very apprehensive*. [TI6/40/T6]

Fear of negative evaluation among learners has been widely established by past studies to be a contributing factor to the development of learners' CA (e.g., Hsu, 2004; Mak & White, 1996; Mustapha et al., 2010).

5.3.1.3 Language Proficiency. Two teachers identified that language proficiency was a cause of learners' CA. Ms Ooi stated that " *I see that they mainly have communication apprehension because of their language barrier*" [TI2/22/T2]. In addition, Ms Lina elaborated that the students' spoken language proficiency was related to a lack of exposure to English at home:

> *Based on their mother tongue, if they are able to converse in English well, they are not so afraid to converse and talk with me, But, usually the student doesn't have English background they will have anxiety when it comes to communicating*. [TI4/19/T4]

Low language proficiency as a contributing factor to learners' anxiety levels has also been established by past studies (e.g., Liu, 2012; Malik et al., 2021).

5.3.1.4 Lack of Content Knowledge. One teacher indicated that learners' knowledge of content plays an important role in learners' CA. Ms Lina asserted that when learners had prior knowledge of the target content from another source of information, they would have the answer to her questions and not be anxious:

> *If they have the knowledge, they get the knowledge maybe at home from the internet from the computer, they will they will be able to answer if they if they want to answer they will be able to answer so the confidence level will be higher*. [TI4/42/T4]

5.3.1.5 Relationship with Teacher. The relationship between the teacher and learner has also been indicated as a contributing factor to learners' CA. In this study, Ms Menakshi, asserted that learners with positive relationships with their teachers would feel comfortable when interacting with them, and therefore would not be anxious of answering questions. In her own words:

> *Another thing is how comfortable they are with the teachers. Some students like that are very comfortable with the teachers, they don't mind, they can become very comfortable and everything and they are willing to try. But some of them are just*

> *not comfortable, they just don't have the chemistry, so maybe that's why they're very anxious*. [TI6/34/T6]

This study's findings provides a direction for understanding young learners' CA as past studies on adult and secondary school learners have shown mixed findings on the influence of teacher-learner relationships on learners' anxiety. For instance, although Malik et al. (2021) indicated that teachers are important in the development of adult learners' CA, however the findings of Dewaele et al. (2018) suggests that the attitude of secondary school learners towards their teachers was not related to their anxiety experienced in the classrooms.

5.3.2 Characteristics of Communication Apprehension Learners

Apart from articulating the causes of CA, teachers shared their views on the characteristics of learners with CA. Characteristics of CA refer to the features of CA among learners. The characteristics shared by the teachers were placed in two categories i.e., traits and behaviours of learners with CA. Traits represent the nature of learners with CA which is associated with personality. The second sub-theme focuses on the observable learner behaviours in the classroom that signifies their CA. Based on the teachers' interviews, it was found that introvert, emotional sensitivity, and eye contact were the characteristics reported by a majority of the teachers in this study. Introvert trait and lack of eye contact aligns with past evidence (e.g., Gregersen, 2005, MacIntyre & MacKay, 2019; Malik et al., 2021 Zhiping & Paramasivam, 2013), while emotional sensitivity is a trait that has not been associated with CA by past studies.

5.3.2.1 Traits of Learners with Communication Apprehension. There were three types of traits that emerged from the teachers' responses, i.e., (i) introvert, (ii) emotional sensitivity, and (iii) self-esteem.

5.3.2.1.1 Introvert. Five out of six teachers described learners with CA to be introvert in nature. Ms Menakshi claimed "*... it also could be because the person is an introvert. Yeah, maybe that's the reason why"* [TI6/33/T6]. Mr Daniel elaborated that learners with CA and who have an introvert personality preferred to work alone, quiet and not sociable., i.e., "*Some students have anxiety but it depends on their personality. They are students who are very quiet, ... not very sociable and there also students who actually socialise ..."* [TI3/33/T3]**.** Similarly, it was highlighted by Ms Nisha that learners with CA preferred working individually rather than in groups.

> *Introverts, yes you can see a pattern, mostly they like to be left alone. Even when it comes to, if they're working in groups, I could see that, you know, they just didn't, they just take the role that they're supposed to be and they prefer to just do it on their own, they don't really discuss. They prefer to work on their own* [TI5/88/T5]

In addition, Ms Lina claimed that learners with CA were learners who were passive and did not engage in interactions, e.g., "*Sometimes they are not so talkative, they're quite passive … introverts"* [TI4/36/T4].

The association of introversion personality and CA have been widely established by past studies (e.g., Neuliep et al., 2003; MacIntyre & MacKay, 2019; Malik et al., 2021). Teachers' perceptions of the traits of learners with CA concurred with the findings of Study 1 that extraversion personality trait scores negatively predicted learners' CA scores.

5.3.2.1.2 Emotional Sensitivity. Three teachers (i.e., Ms Ooi, Ms Lina and Ms Nisha) also claimed that learners with CA mostly appeared to be emotionally sensitive. The teachers used the term 'sensitive', a locally acceptable word to denote emotional sensitivity, to describe learners with CA, e.g., "*They will also be more sensitive"* [TI2/32/T2]*, "They are, normally, they are very sensitive"* [TI5/82/T5]. The nature of learners who are emotionally sensitive has also been reported to be reflected in specific behavioural action such as crying,

i.e., "*Yeah, sometimes they will cry"* [TI4/38/T4]. Although highly anxious adult learners in the past have been reported to have the tendency to cry in situations that are anxiety provoking (Gregersen, 2003; Hewitt & Stephenson, 2012), it may not necessarily be a representation of emotional sensitivity trait. This is indicative that emotional sensitivity may be a prevalent trait among young learners with CA, and the findings of this study supports the findings of Study 2 and Study3.

5.3.2.1.3 Self-esteem. Another trait of learners with CA that was highlighted by two teachers was low self-esteem. Ms Ooi and Ms Lina claimed that learners with higher CA have a tendency to have lower self-esteem, *i.e., "Those with higher CA will have lower self-esteem"* [TI2/32/T2]*, "Low self-esteem"* [TI4/34/T4]. This is not surprising as there have been associations found between learners CA and their levels of self-esteem (Campero-Oliart et al., 2020).

5.3.2.2 Behaviours of Learners with Communication Apprehension. This sub-theme represents teachers' perceptions of the observable behaviours of learners with CA. Based on the teachers' responses, the behaviours of learners with CA were further grouped in two categories, i.e., non-verbal behaviours and verbal behaviours. Each of these categories were further broken down into specific behaviours (i.e., eye contact, body language, verbal responses, verbal disfluencies).

5.3.2.2.1 Non-verbal Behaviours. Non-verbal behaviours refer to the observable behaviours excluding verbal utterances. This category consists of two types of behaviours, i.e., eye contact and body language.

(i) Eye Contact.

All six teachers reported that the lack of eye contact was a prominent behaviour that they have observed among learners with CA. For instance, Ms Padmini and Ms Lina both claimed that learners with CA have a tendency to look away during interactions, i.e., "*It is the way they look at you or you know, they will like, look away, they will look down …"* [TI1/47/T1], "*They won't make eye contact, okay. They will just keep looking down"* [TI4/29/T4]. Similarly, past studies have also found that lack of eye contact to be a common behaviour among adult learners with CA (e.g., Gregersen, 2005, Zhiping & Paramasivam, 2013).

Teachers have asserted that learners' eye contact reveals whether learners are anxious. For instance, Ms Ooi and Ms Menakshi have described the difference in eye contact between anxious and non-anxious learners. Ms Menakshi claimed that eye contact is an obvious behaviour that signifies learners' anxiety, i.e., "*Usually the first, the most easiest is eye contact. So this is obviously the first point, you know already that he or she is very apprehensive, he doesn't want to answer. So that is usually the first point of sight … "* [TI6/32/T6]. Likewise, the avoidance of eye contact in order to not engage in interactions was also reported by Ms Nisha. She made reference to one particular learner whom she believed experienced high CA, i.e., "They *won't look at you in the eye when they are talking to you … So there's one particular boy who doesn't mean he will just, you know, the minute you ask him something, he will just look down, he won't answer"* [TI5/80/T5].

It was also reported that apart from lack of eye contact, learners with CA may seek help from friends when they were required to interact. Mr Daniel reported that when his learners with CA were anxious, they had a tendency to avert their eye contact to the more proficient learners as a way of seeking assistance from them. He stated that "*They won't look at me, they will tend to look at the good students, hoping that they would help them. They*

avoid creating eye contact when they are communicating with me" [TI3/29/T3]. In addition, Ms Ooi reported that non-anxious learners have a tendency to create eye contact as they would like to engage in interactions; whereas anxious learners would not create eye contact in order to avoid interaction as well as avoid eye contact during interactions.

> *Sometimes, they don't look at you. If they stare at you, it means "teacher I want to say, I have the answer" or if they look down, "it means they don't want to be chosen to talk or answer in class. I have done it so I know … they won't have eye contact with the person they are communicating.* [TI2/26/T2]

This is also in line with the findings of Study 2 and Study 3, which found that learners with low CA created more eye contact with teachers during interaction as compared to learners with high CA.

(ii) Body Language.

Two teachers have also reported that body language was a behaviour that signified learners' CA. However, two different descriptions of body movements were given by Mr Daniel and Ms Nisha respectively. Mr Daniel asserted that learners with CA have a tendency to demonstrate agitative behaviour such as swaying. He stated that "*Those with high communication apprehension will not be standing still, they will be moving they body left to right"* [TI3/29/T3]. While Ms Nisha reported that learners with CA have a tendency to be rigid and motionless, i.e., "*Yeah, they will be stiff when you approach them when you ask them something and they won't react"* [TI5/79/T5]. These two behaviours (i.e., rigidity and agitation) have been reported to be associated with learners' CA (e.g., Gregersen 2005; Mulac & Sherman, 1974).

5.3.2.2.2 Verbal Behaviours. For this category, there are two specific classifications of verbal behaviours that were identified based on teachers' responses. These two types of verbal behaviours are verbal responses and verbal disfluencies.

(i) Verbal Responses.

Verbal responses refer to the type of learner responses during interactions in the classroom as reported by teachers. All six teachers highlighted that learners with CA have a tendency to not respond to or answer the questions asked in the classroom. For instance, this can be seen in Ms Padmini's and Mr Danial's statements respectively, i.e., "*I mean, the way they respond. They don't answer at all"* [TI1/49/T1], "*Usually students with high communication apprehension will be very quiet and they do not respond to you ..."* [TI3/27/T3].

In addition, one teacher also highlighted that learners with CA may know the answers to the questions but were too apprehensive to try to answer even when they may have had ideas or the answers to the questions asked. Ms Menakshi stated that:

> *The ones with high communication apprehension, ... try to avoid answering your questions, the very apprehensive students, even they know the answer, they are very scared to try. Unless you call them, you must pick one and call them then only they will tell you the answer, which probably would have been the correct answer ...* [TI6/34/T6]

Similarly, Ms Padmini also claimed that learners have a tendency to not even to attempt to answer., i.e., "… *they just say "I don't know teacher", you know just like that, they don't want to try la you know"* [TI1/49/T1]. This avoidance of responding to teachers' questions was highlighted by Ms Nisha and Mr Daniel to be due to their fear, i.e., "*They are very, very quiet, scared to answer"* [TI5/72/T5], "*Although they are paying attention, they are afraid, so they choose to keep quiet ..."* [TI3/27/T3]. This is in line with the current understanding of anxious learners' verbal behaviours i.e., learners often talk less and choose

to remain silent in various communication contexts as a result of their CA (Maher & King, 2020; Zhiping & Paramasivam, 2013).

(ii) Verbal Disfluencies.

Verbal disfluency was identified as another verbal behaviour based on the teachers' statements. Ms Padmini claimed that learners with CA have a tendency to use filled pauses during interaction. She described this behaviour by stating "*when they are like 'uh uh uhm'* " [TI1/47/T1]. Similarly, Ms Ooi also claimed that verbal disfluency was a behaviour that she observed among learners with CA. She referred to this behaviour as stammer, which signified that when learners interact, their responses are consist of involuntary disruption in speech production (Craig & Tran, 2006) as a result of struggling to communicate (Harrison, 2008), i.e., "*Those with high CA may have certain behaviours. Sometimes they stammer …"* [TI2/26/T2]. This further supports past studies that have highlighted learners' tendency to display verbal disfluencies during interactions (e.g., Lewin et al., 1996; McCroskey, 1997).

5.3.3 Implications of Communication Apprehension.

Implications of learners' CA based on teachers' perceptions were predominantly focused on academic work or performance. There are three sub-themes for the implications of CA i.e., (i) no effect on academic work, (ii) negative effect on academic work, and (iii) positive effect on academic work. The findings of this study suggest that teachers had different perceptions on the implications of learners' CA on their academic performance. Similarly, past studies on adult learners have also found that CA may have both negative and positive implications on their academic performance (e.g., Blume et al., 2010; Hardacre & Guvendir, 2020; Joyce et al., 2006; Zhang & Liu, 2013).

5.3.3.1 No Effect on Academic Work. Three teachers perceived that learners' CA did not have an impact on their academic performance. Ms Lina asserted that learners' anxiety did not have an impact on their attainment of knowledge in the classroom, i.e., "*The anxiety itself doesn't have an impact, lots of impact. It's in the class. Whatever I'm teaching them, they will, they will learn. It's the same as everyone else. It just that how they absorb the knowledge, right, it's not because of their anxiety"* [TI4/46/T4]. Similarly, Ms Nisha also shared the same view as she stated that:

> *... so far as I've seen, it's like maybe, you know, when it comes to the academic, if you see it as a whole, because now academic achievements we see in the exam, but if we see as a whole they are okay.* [TI5/100/T5]

Ms Menakshi used a particular learner as a reference when asserting her point of view, i.e., "*No, that I will have to say no. Because it's quite obvious, the girl was very apprehensive but she's actually the first she usually gets straight A's"* [TI6/52/T6]. However, Ms Menakshi (in Section 5.3.2.2.2) also viewed that learners with CA usually do not respond or avoid responding to questions in the classroom, a contradiction to her view that CA does not have an influence on academic performance. Perhaps, Ms Menakshi did not view the lack of learner engagements and classroom interactions as part of academic performance.

5.3.3.2 Negative Effect on Academic Work. Two teachers highlighted that the presence of CA among learners negatively influenced their language learning process. Ms Padmini asserted that CA indirectly plays a role in their performance as it was important for learners to be confident in oral production in order to excel in their written work, i.e., "*I mean when they learn to speak correctly and confidently, it will automatically help them with their writing also, it's all actually connected. You cannot like take it apart"* [TI1/64/T1]. Similarly, Mr Daniel claimed that when learners with had high CA withdraw from interactions, they

missed the opportunity to practice using the language, and consequently inability to improve their language proficiency. In his own words:

> *The major difference between high and low communication apprehension is their performance in terms of how they perform in class. This is because high CA they don't communicate, so it's hard for them to improve but those with low CA there is a two-way communication so a lot of opportunity for them to improve. So there are implications of communication apprehension on student academic achievement.* [TI3/37/T3]

5.3.3.3 Positive Effect on Academic Work. Interestingly, one teacher believed that learners' CA was a driving force in enhancing the classroom performance. Ms Ooi indicated that learners' CA positively impacts their effort in completion of work given in the classroom. She stated:

> *I think CA affects their academic performance. Because if they realise that the teacher keeps calling them, then they will know that they have to get their work done in order to be able to respond to the teacher in the class*. [TI2/40/T2]

Other than Ms Ooi, no other teachers viewed CA positively. However, Ms Ooi's statement seemed to support learning out of fear, which may escalate learners' CA to a greater degree if their intended learning is not achieved.

5.3.4 Mitigation Strategies of Communication Apprehension.

This theme focused on the teachers' perceptions of effective mitigation strategies for learners' CA. Five sub-themes were constructed, i.e., (i) encourage interaction, (ii) strategise question and answer sessions, (iii) seek support from parents, (iv) exclusive guidance, and (v) incorporate various materials and tasks. Two of these sub-themes (i.e., encourage interactions, strategise question and answer sessions) also embrace several minor categories, highlighting more specific strategies. It was generally found that the teachers shared non-

overlapping strategies which is reflective of their individual preferences and experiences with CA mitigation strategies.

5.3.4.1 Encourage Interaction. This sub-theme mainly expresses the idea that learners should be given more opportunity to interact. In general, one teacher asserted that teachers should provide learners with tasks and activities that enable them to interact both in and out of the classroom. Ms Padmini who indicated that CA has negative implications on learners' academic achievements, emphasised that it was important to encourage learners to interact more in the classroom, "*... you have to get them to speak more, the teacher have to come up with activities not only in classroom even out of class, so you have to come up with things to encourage them to actually speak"* [TI1/29/T1]. Encouraging interaction is in line with teachers' perceptions of mitigating adult learners' CA, as teachers have suggested encouraging interaction to be an effective strategy in helping learners cope with their CA (Carter & Hansford, 1999; Inada, 2021; Tran & Moni, 2015). Providing learners opportunity and encouragement to interact in the classroom would boost their confidence levels (Carter & Hansford, 1999). This sub-theme consists of two specific categories, i.e., encourage interaction with peers and encourage interaction with teachers.

5.3.4.1.1 Encourage Interaction with Peers. Two teachers indicated that learners should be encouraged to interact more with their peers in the classroom. Ms Lina asserted that interactions with partners or in groups would enable learners to gain confidence, i.e., **"**... *if they still don't have the confidence to talk, we put them with a buddy or in a group. Usually buddy system and group is effective*" [TI4/23/T4]. Another similar idea suggested by Ms Padmini was working with peers encourage sharing of ideas particularly if they were afraid to share their ideas with the teacher:

> *You can make them come out of it, you know, so we work along with that maybe they can personally come in talk to, maybe they can share the idea with their friends, instead of a teacher, you know, something like that.* [TI1/37/T1]

5.3.4.1.2 Encourage Interaction with Teachers. One teacher, Mr Daniel, emphasised that it was important for teachers to encourage learners to interact with teachers in the classroom. Mr Daniel believed that through teacher encouragements and motivations, learners with CA would feel more comfortable to interact in English with teachers in the classroom. This view is reflected in the quote below:

> *Based on my experience, what I do in my class to help those with CA is that, I do encourage everyone to only speak English in my class, but they are students and they will definitely make mistakes. And fellow students do tend to make fun and they will even say "this also you don't know?" So I motivate them to speak more with me in my class and they will eventually be comfortable.* [TI3/21/T3]

5.3.4.2 Strategise Question and Answer Sessions. This sub-theme focuses on strategies specific to answering questions in the classroom. There are four specific categories, in this sub-theme i.e., (i) avoid forceful interactions, (ii) provide sufficient time to prepare, (iii) avoid making them the first and last to answer questions, and (iv) normalise making of mistakes.

5.3.4.2.1 Avoid forceful interactions. Two teachers have specifically indicated that learners should not be forced to answer questions in the classroom. Ms Padmini stated that **"***... we should also, maybe not push them too much, because that is their character, you know, you can make them come out of it"* [TI1/37/T1]. Similarly, Ms Ooi also asserted that learners should not be forced to answer question and if they are unable to answer, they should be given a chance to answer the other questions. She believed that learners should be given an opportunity to gradually overcome their fears. In her own words:

> *When I see students with CA, I don't straight away call them.*

> *If they can't answer and all that, you don't force them, maybe they can try again for the next question, you don't force them because they can't take it … Because if you push them too hard, they won't be able to take it. If they can't take it, then you should stop forcing them, and just let them progress on their own.* [TI2/20/T2]

It was found that there were contradictions to Ms Ooi's perceptions. As reported earlier in Section 5.3.3.3, she perceived that when learners are frequently questioned in the classroom, they would eventually be prepared to respond through increased efforts. However, she also asserted that learners should not be forced if they are unable to answer questions in the classroom. Although there were contradictions to her perceptions in relation to this, she further asserted that there are effective ways to strategise question and answer sessions in the classroom, which is presented in Section 5.3.4.2.3.

5.3.4.2.2 **Provide Sufficient Time to Prepare.** Two teachers also perceived that learners should be given sufficient time to prepare their responses. This is in line with the literature that insufficient preparation time given to learners would elevate their CA (Mak & White, 1996). Ms Menakshi specified a particular method in which she asks a question and provides learners sufficient time to prepare prior to seeking responses:

> *So usually what I will do is when I throw the question, I'll throw random general questions and see who can give me back feedback, but after a few times that you know, you're asking for answers. And that particular student is very laid back refuses to still refuse to look at you. So I'll throw a question and then I will give them time to think of the answers and then I choose that particular student. Okay so that means I give her time, he or she time to think for the answers, for them to decode that whatever question, but to get back the answer maybe it's a bit slow.* [TI6/32/T6]

Similarly, Ms Ooi believed that providing learners sufficient time to prepare and giving written tasks would enable them to boost their confidence.:

> *Other ways to help learners with CA is to build their confidence first by giving them more of writing first. I see it in few of my*

> *students, they can come up with a beautiful piece if you give them a night or two to work on it. If they can't do it, give them one week, you know tell them after this is your turn. This is not forcing them to straight away do it.* [TI2/18/T2]

5.3.4.2.3 Avoid Making Them the First and Last to Answer Questions. Another strategy that one teacher asserted was to avoid making learners with CA to be the first or last in answering questions. Ms Ooi claimed that learners may feel anxious when they are the first to answer the questions asked, while they should also not be the last as other learners may have already shared the ideas that they had in mind. Thus, Ms Ooi stated that it was important to get learners to share their answers early on:

> *I feel you shouldn't allow the students who carry up their hands to answer first, because if you want to ask them to answer, you should allow them after the second question or so because the first question they will be too scared to answer and the last ones also you shouldn't ask because all the possible answers would have already been mentioned by their friends.* [TI2/16/T2]

5.3.4.2.4 Normalise making of mistakes. One teacher, Mr Daniel perceived that it was important to allow learners to make mistakes in the use of the language and subsequently, he claimed that peer criticism or negative evaluation should not be entertained or encouraged in the classroom. Based on his experience, he perceived that it was important to create an atmosphere to allow learners to make mistakes when they interact in the classroom. He stated that:

> *They are students and they will definitely make mistakes. And fellow students do tend to make fun and they will even say "this also you don't know?" So I motivate them to speak more in my class. When they make mistakes, and when students try and mock them, I will not attack the students that make mistakes, I will attack the students that make fun. And this works in my class, and it really helps students gain confidence and by the end of the year they can communicate using simple sentences confidently*. [TI3/21/T3]

This strategy is reflective of Mr Daniel's perception and that of past studies that have indicated learners to be predominantly fearful of making mistakes during interaction in the classroom (e.g., Arnold, 2007; Mak & White, 1996). Thus, this highlights the interconnection between the perceived causes and CA mitigation strategies, as well as the importance of emphasising the source of learners' CA i.e., fear of making mistakes, by creating a safe environment for learners to make mistakes.

5.3.4.3 Seek Support from Parents. Two teachers believed that it was important to include learners' parents in the process of mitigating learners' CA. Ms Lina claimed that it may be effective to approach the parents about learners' CA and they would be able to further support the learners, i.e., "*Sometimes we can also go and see their parents, we can meet their parents and talk to their parents also about the situation*" [TI4/25/T4].

In addition, another teacher, Ms Ooi, shared her two strategies to include parents in the task and activities given to learners. Firstly, she suggested to record learners' oral performance and inform learners that parents will be given the recorded video. Secondly, to get parents to provide support in the tasks given to learners to be completed or prepared at home. In her own words:

> *… what I do is that I will tell them that I will record it for their parents to see. So they will probably go back, and they will work hard because they know their parents will see. So maybe their parents will then help them, guide them at home, and they get better gradually. This is how it helps with their confidence.* [TI2/18/T2]

While school-parent partnerships have been shown to be important in learners' language attainment and progression (Stewart et al., 2022), an older study by Bourhis et al. (1993) also showed that parents play an important role in providing encouragement and support to learners with CA.

5.3.4.4 Exclusive Guidance. Two teachers indicated that they prompted their learners with more questions when they were unable to give responses or answers in the classroom. This corroborates the literature that has emphasised the importance of teachers' guidance during learners' interaction in the classroom (Inada, 2021). Ms Lina stated that "*Basically I guide them and ask more simple questions"* [TI4/23/T4]. Similarly, Ms Nisha also shared that she usually provided guidance to her learners and does not interrupt their speech. This is reflected in the quote below:

> I *don't really believe in, you know, uh stopping children, because, you know, this is is where they, actually grow and all that. So what I used to do is that I will try to you know, guide them.* [TI5/48/T5]

5.3.4.5 Incorporate Various Materials and Tasks. The last sub-theme that emerged from the teachers' responses was the use of various tasks and materials. One teacher, Ms Lina, shared that she uses teaching aids to boost learners' confidence, i.e., "*I even sometimes use teaching aids, pictures to give them confidence"* [TI4/23/T4]. In addition, another teacher, Ms Menakshi, shared that the use of creative strategies was effective in helping learners with CA. Ms Menakshi shared an example of a task that usually conducts with her learners in the classroom:

> *You know that they're very apprehensive about answering and everything, you just change your ways, you change your strategies. If you them ask and they don't answer, then you got to put it in a different way. So I make everyone sit down and then put the coloured hat, so they use thinking hat. If you use red hat means you have to talk according to red colour, you have to ask questions, if you were to use black colour hat, you have to talk about what are the negatives. So then when you put them into task, then they are willing to talk. Because another thing because maybe six of them are sitting there together, thinking. So you find different strategies.* [TI6/23/T6]

This supports the idea that there is no single task deemed most effective in alleviating learners' CA. The use of various creative tasks in the classroom is reflective of individual

teachers' preferred strategies and their efforts in mitigating learners' CA (Carter & Hansford, 1999). These preferences and efforts are guided by their perceptions of what works in alleviating learners' CA.

5.3.5 Teachers' General Classroom Practices

This theme illustrates their reported classroom practices and how they shape their classroom environment. Four sub-themes emerged in this theme, i.e., (i) rigid rules, (ii) constant evaluation, (iii) power distance between teacher and learner, as well as (iv) punishment.

5.3.5.1 Rigid Rules. Four teachers shared that they implemented a set of class rules and required their learners to strictly follow the rules. These rules were used for classroom management implemented from the beginning of the year to help learners understand the classroom conduct and expectations, and to consistently abide by the set rules throughout the academic year. Two teachers, i.e., Ms Padmini and Ms Ooi, specifically highlighted that they implement the rules early:

> *I do make the rules I set at the beginning of the year a big thing and put a lot of importance on it. I think it is good that we give emphasis on it from the beginning, so that it gets stuck in them.* [TI1/185/T1]

> *I set out the rules at the very beginning* [TI2/135/T2]

Ms Lina stated that she used classroom rules to show the learners that she was in control of the class:

> *Set of rules are given or share to the students on the first lesson of each year. It's the first impression that is very important. First you have to show how strict you are, how tough you are. You have to the tell them the rules and guidelines that they need to follow …* [TI4/145/T4]

Specific to Ms Lina's reported practice of creating an impression that she is tough and strict, it may possibly act as a barrier to her perceived CA mitigation strategy that learners should be encouraged to interact in the classroom (see Section 5.3.4.1.1), as the impression that she reported to create among her learners may instead instil fear and learners may avoid interacting as they view her as a strict teacher (Malik et al., 2021).

In addition, the specific rules that teachers have reported to implement in their classroom also appear to be rigid. Ms Padmini asserted that she required her learners to strictly follow her rules especially in regard to completion of work and quality of work.

> *When it comes to my class, I make sure that 100% work is done, as in if I give them work to do. I make sure everyone does it and pass up on time. No excuses. I want neat work ...* [TI1/179/T1]

The teachers also claimed that it was important for learners to create eye contact and not to talk during the lesson. One teacher, Ms Ooi, claimed that it was important for learners to pay attention during lessons. She emphasised that she required learners to not talk during lessons and create eye contact with her as she stated "*I also don't tolerate noise. When I am teaching they all must face me. It is a must that all must look at me and pay attention …*" [TI2/132/T2]. Similarly, Ms Menakshi reported that she emphasised learners' eye contact and learners were required to be cautious when they speak "*I created this class rules, I call them the Menakshi's rules ... Example of my rules, rule number 1, stand straight and look at the teacher in the eye, rule number 2 is think before you speak …"* [TI6/158/T6].

It was also reported that there were repercussions of not abiding by teachers' rules. For instance, Ms Lina asserted that if learners do not abide by the set rules, they may be sent to the headmaster, i.e., *"... they only have one chance. Second time they will be sent to HM (headmaster) …"* [TI4/145/T4].

5.3.5.2 Constant Evaluation. It was also gathered from teachers' responses that learners' performance was constantly evaluated in the classroom. One teacher, Ms Padmini, asserted that apart from providing a structure and scaffolds to learning, she also usually performs informal formative assessments in the classroom. She claimed to point out learners who were observed to be not fully engaged in the lesson:

> *At the end of day or lesson I will tell what I saw from my point of view on how the activity went. I will tell what was the weakness. We are supposed to tell them each day what is the objective, topic and learning outcome for the day. So at the end of the lesson I will tell whether we achieved it or not. For example, if we did a group activity, I will tell that this group did a good job, this student did a good job, this student did not participate.* [TI1/235/T1]

It was also reported that evaluations in the classrooms were followed up by corrections and feedback. Two teachers also highlighted that when learners engage or communicate during the lesson, they provide feedback and correct their mistakes as it occurs. For instance, Ms Padmini stated that "… *I correct them or praise them when it comes to speaking. I always do give feedback when they communicate in class.* [TI1/236/T1]. Similarly, Ms Lina also claimed that she had a tendency to correct learners mistakes when they interact, i.e., ***"****If they are talking and I notice a mistake, I will correct them right away"* [TI4/193/T4]. Teachers' feedback in the classroom may positively contribute to learners' language proficiency and attainment (Lyster et al., 2013). However, the constant evaluation of learners' performance by teachers in the classroom may lead to an increase in learners' anxiety as evaluation by teachers is one of the factors that play a role in learners' anxiety (Gregersen & Horwitz, 2002, He, 2013). It has been suggested that instead on focusing on learners' mistakes, teachers should provide more positive reinforcements especially for anxious learners (He, 2013).

5.3.5.3 Power Distance between Teacher and Learner. One teacher, Ms Ooi, shared that she created a distance between her and her learners because it was important for her learners to understand her stance as a teacher and that she emphasised on teacher-learner boundaries in their relationship.

> *They can treat me as a friend but they also have to know that I am their teacher. So I always stress this. I don't like children who are so close to the teacher, invade my space I feel that the moment you allow them to come to the front space and sit with you, the students will make noise and they will feel that they are close with the teacher and they will then start other nonsense. What you need to know is that I can be close to you but I am still your teacher, not more than that. You need help, I can help you. So I need the children to know that, not as a friend.* [TI2/176/T2]

However, as presented earlier in Section 5.3.1.5, another teacher, Ms Menakshi perceived that it was important for learners to feel comfortable and have a good relationship with their teachers. She perceived that if learners are not comfortable, it may exacabate their CA and this is in line with the literature that has suggested the relationship between teachers and learners is important in the management of learners' anxiety in the classroom, as learners may feel more comfortable to interact with their teachers when they have a friendly relationship with them (Young, 1990). Poor teacher-learner relationships have also been found to impede learners' classroom involvement as it demotivates learners to participate (Hu, 2011).

5.3.5.4 Punishment. One teacher, Mr Daniel, claimed to practice punishment in the classroom. Mr Daniel claimed that his punishments in the classroom were specific to when learners make simple mistakes in regard to a taught content. Mr Danial stated that "*I do practice punishment … when I have already taught them something again and again, even when I have repeated so many times. I also punish them for simple mistakes.* [TI3/175/T3].

However, he also asserted that punishment was carried out only for mistakes that are unacceptable:

> *… for example, Aminah is sitting on the ___ near the table" and the answers are multiple choice where the options are chair, grass, monkey. So if they answer chair, it is correct, but if they answer stool, I would not punish them because they are very similar and if you don't know the difference between chair and stool then I understand, but if they answer monkey, I will punish them …* [TI3/175/T3]

One of the ways in which he implemented punishment in his classroom is by getting learners to stand up for a short period of time. He claimed punishment to be an effective method in managing learners in the classroom and ensuring that the given work or tasks are completed. In his own words:

> *… They are afraid of it, it wouldn't say afraid as in terrified until the extend they wouldn't want to come to school. So it is effective … For example, for this particular class, they are extremely noisy, they don't do homework at all, most of them. But in my class I don't have this problem, their homework is always complete, they hand out their books on time. But whereas with other teachers, they dare to not complete their homework. So this shows that this method really really works.* [TI3/175/T3]

This however contradicts his perceived mitigation strategy. As reported earlier in Section 5.3.4.2.4, he suggested that it was important to normalise the making of mistakes in the classroom, however he reported to punish learners from simple mistakes made. This is indicative that there is a lack of alignment between the perceived CA mitigation strategy and the reported general classroom practices. Although the teacher viewed that punishment was effective, it is important to note that punishment by teachers also directly impedes learners' motivation and performance in the classroom (Hu, 2011). It creates a stressful environment for learners as they may be fearful to communicate in the classroom due to the negative repercussions of making mistakes.

5.4 Discussion

The present study explored teachers' perceptions of young learners' CA. Based on the findings from the interviews with six Malaysian primary school teachers, this discussion section is organised based on the following key points; (i) the CA experienced by learners is contextual situated, (ii) the teachers' perceptions of CA causes influenced their perceptions of CA mitigation strategies, (iii) there is a lack of alignment between their perceptions of CA mitigation strategies and their reported classroom practices (iv), and teachers perceived that there were specific characteristics of learners with CA such as lack of eye contact, rigid and agitative body language, lack of verbal responses, presence of verbal disfluencies, introversion, low self-esteem, and emotional sensitivity, as well as (v) CA has both facilitative and debilitative implications on learners' academic performance in the classroom.

5.4.1 Communication Apprehension is Contextually Situated

Based on the teacher perceptions in this study, it is indicative that CA is contextually situated in relation to the causes and mitigation strategies. Firstly, fear of making mistakes and negative evaluation were the most commonly reported contributing factors to the development of CA among young learners. One of the reasons that has led to the fear of mistakes among learners is the evaluation and correction of mistakes made by peers in the classroom, while fear of negative evaluation is often a result of learners' lack of confidence to communicate (Mak & White, 1996). When learners experience high CA, they doubt their ability to communicate competently in the given situation and subsequently withdraw from engaging in interactions (Zhiping & Paramasivam, 2013). This may be more apparent in specific contexts as in the Asian context (e.g., in China or Chinese learners), there is a concept of 'face value', which signifies the importance of using the language correctly, without making mistakes (Durkin, 2008; Jackson, 2002; Zhong, 2013). Thus, in relevance to

this context, it is possible that if learners are unsure of their answer or doubt their ability to answer correctly in English, it may lead to an increase in their anxiety and they may choose to remain silent, as a result of the fear of losing face value. Although past studies have suggested that fear of negative evaluation and fear of making mistakes are predominantly the causes of CA among learners, it may be argued that this is more prevalent in specific contexts as the past studies that identified these factors as the causes CA were focused on Asian learners where English is not the first language, e.g., Taiwanese, Malaysian, Iranian, Chinese, Japanese, and Indonesian (e.g., Hsu, 2004; Mak & White, 1996; Matsuoka, 2008; Mustapha et al., 2010; Sadighi & Dastpak, 2017; Tiono & Sylvia, 2004).

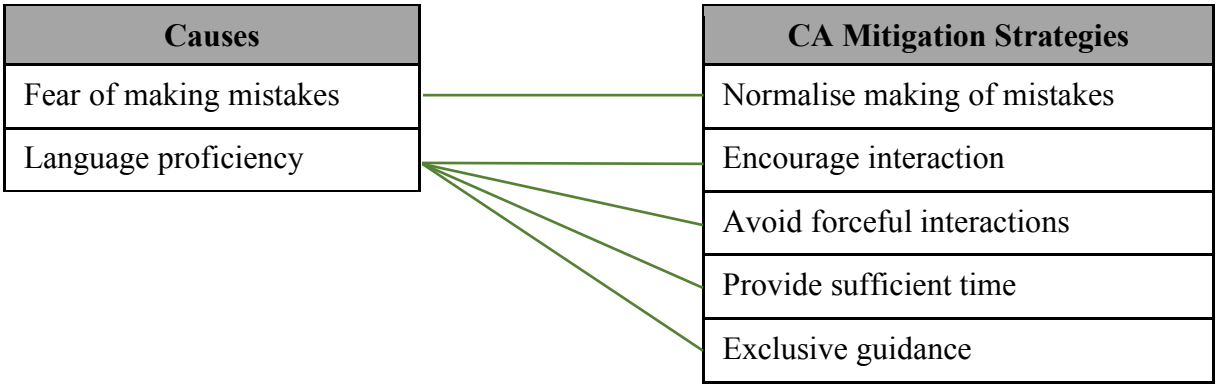
Secondly, teachers in this study also perceived that one of the effective ways of mitigating learners' CA is by providing more or sufficient time for learners to prepare and respond in the classroom as it would boost their confidence. This particular strategy proposed by teachers in this study revealed that this may be context specific. Although some learners in general may need more time to process information and respond (Dhindsa, 2010; MacIntyre & Gardner, 1994; White & Lightbown, 1984), sufficient time is particularly more important for learners who have a tendency to process their thoughts in languages other than English (Jackson, 2002; Wu, 2019). Among learners in the Asian context (e.g., China) in which English is not the first language, they may need more time than peers with English as the first language as they would have to translate their responses in mind before they can produce verbal answers (Jackson, 2003; Li & Jia, 2006). In the Malaysian context, this is relevant as learners are from various backgrounds and may have a different first language, as such not all learners may formulate their thoughts in the English language. Without sufficient wait time, ESL/EFL learners may experience heightened anxiety levels in the classroom as their confidence level reduces due to the lack of preparation (Mak, 2011).

5.4.2 Interconnection Between Perceived Causes and Communication Apprehension Mitigation Strategies

There are interconnections found between the perceived causes of CA and the CA mitigation strategies as the fear of making mistakes was interconnected with normalising the making of mistakes, and language proficiency was interconnected with encouraging interactions, avoiding forceful interactions, providing sufficient time, and giving exclusive guidance to learners. Figure 5.3 illustrates the interconnections. Based on these interconnections, it indicates that teachers' perceived causes of learners' CA influences teachers' choices of CA mitigation strategies.

Figure 5.3

Interconnection between Causes and Mitigation Strategies



Fear of making mistakes was perceived by teachers to be one of the causes of learners' CA. In this study, Mr Daniel who perceived learners' fear of making mistakes as a contributing factor to CA, perceived normalising making of mistakes in the classroom as an effective strategy to mitigate learners' CA.

This study also found that the two teachers who perceived language proficiency to be a contributing factor to learners' CA, to suggest mitigation strategies such as encouraging interactions, avoiding forceful interactions, providing sufficient time for learners to respond,

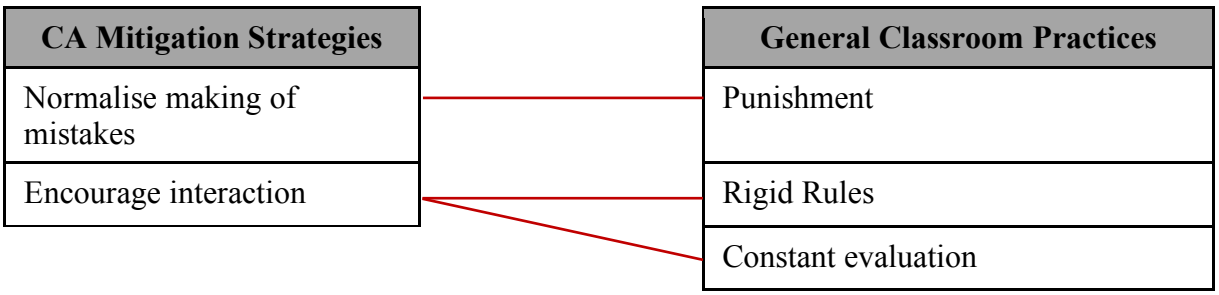
and providing learners with exclusive guidance. For instance, specific to encouraging interactions among learners, it provides learners' opportunity and encouragement to interact in the classroom would improve their language proficiency (Gradman & Hanania, 1991; Omar et al., 2020), which therefore addresses one of the contributing factors to learners' CA. Thus it is evident that what teachers believe to be the causes of CA among learners influences their understanding of effective strategies to mitigate learners' CA. However, based on the perceptions of the six teachers in this study, it was found that they were not aware or did not report on specific causes such as prior communicative experiences that was previously established by past studies (Bryne et al., 2012; Tran, Moni & Baldauf, 2013). As such, this highlights the importance for teachers to have complete awareness of all the possible factors that contribute to learners' CA in order for them to be able to implement tailored strategies that would address the root of the CA problem among learners in the classroom.

5.4.3 Lack of Alignment between Perceived Communication Apprehension Mitigation Strategies and Reported General Classroom Practices

Although the teachers reported effective mitigation strategies based on their perceptions of CA causes, there was however, a lack of alignment between their suggestions of effective CA mitigation strategies and their reported classroom practices. The lack of alignment is illustrated in Figure 5.4. The lack of alignment reveals that they may not be wary of how their general classroom practices may impede their efforts of mitigating learners' CA.

Figure 5.4

Lack of Alignment between CA Mitigation Strategies and General Classroom Practices



Although Mr Daniel identified fear of making mistakes as one of the causes of CA among learners and suggested normalising the making of mistakes as an effective mitigation strategy, his reported classroom practices contradicted with his suggestion. He claimed to practice punishment in the classroom when learners make simple mistakes in regard to a taught content, and viewed punishment to be an effective method in managing learners in the classroom. However, punishments may create a stressful environment for learners and may have a greater negative impact on their anxiety (Kopecky et al., 2004), as anxious learners may be prone to notice, recognise, and recall such negative experiences and therefore it may contribute to learners' communication anxiety as it instills fear among learners (Suparlan, 2021). Despite the perception of Mr Daniel in this study that normalising making of mistakes to be an effective CA mitigation strategy, he reported to use punishment as a tool in classroom management, which may therefore have negative implications on learners' CA rather than alleviating learners' CA.

Another area which was found to have a lack of alignment is that teachers (i.e., Ms Padmini, Mr Daniel and Ms Lina) perceived encouraging learner interactions to be an effective CA mitigation strategy, however, they also reported to have implemented rigid rules as well as perform constant evaluation in the classroom. For instance, specific to classroom rules, although classroom rules are an integral part of teaching and learning in order to

manage learners' behaviours in the classroom (Alter & Haydon, 2017), learners would feel greater anxiety with teachers who are strict (Dewaele et al., 2019) and would not be able to enjoy the learning process (Jiang & Dewaele, 2019). One teacher, Ms Lina, claimed that rules were a way in which to show learners how 'tough' teachers are, which reflects the authoritative nature of the teacher. She also asserted that if learners do not abide by her classroom rules, they will be sent to the headmaster. These may subsequently make learners feel that the teacher is less approachable and strict, and they may therefore refrain from engaging in interactions with the teacher, which contradicts Ms Lina's strategy to alleviate learners' CA in the classroom. This highlights an important area that needs to be addressed as teachers having the awareness of the possible CA causes and relevant mitigation strategies may not be meaningful if their classroom practices are not in line with their understanding of CA. In this study, in spite of the teachers' demonstrating a good understanding of CA phenomenon among young learners, their reported classroom practices indicate that they are not taking into consideration learners' CA when it comes to classroom practices.

5.4.4 Characteristics of Learners with Communication Apprehension

5.4.4.1 Behaviours of Learners with Communication Apprehension. All six teachers reported that the lack of eye contact was a prominent behaviour that they have observed among learners with CA. Teachers perceived that eye contact of learners is an indicator of learners' anxiety. It is believed that learners with CA have a tendency to avoid eye contact as a form of communication avoidance. This is in line with the findings of Study 2 and 3 which observed that learners with high CA had a greater tendency to avoid eye contact with their teacher during interaction as compared to learners with low CA, which therefore indicates that lack of eye contact may be a behavioural indicator of learners' CA. These are concurrent with the findings of past studies on adult learners which identified

significant associations between CA and lack of eye contact (e.g., Gregersen, 2005, Lindberg et al., 2021; Zhiping & Paramasivam, 2013).

Another nonverbal behaviour that was reported by teachers is the body language of learners. Two teachers claimed body language was another behaviour that distinguishes learners with CA. There were two specific body language that were reported, i.e., agitative behaviours such as swaying, and rigid behaviours such as stiffness. Specific to agitation, Study 2 and 3 found that fidgeting was a prominent behaviour among learners with high CA as learners were generally found to have fidgeted throughout their interactions with their teacher as compared to learners with low CA. In addition, rigidity was also observed in Study 2 as one of the learner with high CA was very stiff throughout the entire interaction with his teacher. These two behaviours, i.e., agitation and rigidity, are behaviours that have been reported to be associated with adult learners' CA in a study conducted by Gregersen (2005). Thus, the findings of this study as well as that of Study 2 and suggest that agitation and rigidity are two dimensions that may most likely be reflective of the behaviours of young learners with high CA.

Through a comparison of findings from Study 2 and Study 3 with the findings from this study, it highlights that teachers may not have complete awareness of the prominent nonverbal behaviours of learners with CA. As highlighted in the preceding paragraphs, teachers have reported specific nonverbal behaviours, i.e., lack of eye contact as well as rigid and agitative body language, that were also observed among the high CA case study learners in Study 2. However, it also highlights that the teachers did not report smiling behaviour that was observed to have significantly differed between high CA learners and low CA learners from Study 2 and Study 3. Therefore, this may be indicative of teachers not having a full awareness of the range of behaviours that learners with high CA may engage in, which may then subsequently lead to poor identification of CA among learners in the classrooms.

Specific to verbal behaviours, all six teachers perceived that learners with CA have a tendency to not respond to the questions asked in the classroom, instead they often remain silent during interactions. This view is further supported by the findings of Study 2 and 3 in which learners with high CA in Study 2 had a tendency to remain silent to teacher questions in comparison to learners with low CA in Study 3. This verbal behaviour also concurs with past studies as it has been established that learners with high CA have a tendency to avoid and withdraw from communication as a result of their anxiety (Beatty, 1987; McCroskey, 1997; Wheeless et al., 1986).

Another verbal behaviour that was reported by teachers to be prominent among learners with CA is verbal disfluency. Two teachers claimed that learners have a tendency to stammer and produce filled pauses. This is in line with past studies that have highlighted learners' who experience CA have tendency to display verbal disfluencies during interactions (e.g., Goberman et al., 2011; Lewin et al., 1996; McCroskey, 1997). However, the findings of Study 2 and 3 are unable to support the findings of this study, as verbal disfluencies were not significantly observed to be a behavioural difference among learners with low and high CA. Nonetheless, the findings of this study suggests that there is a need to further examine young learners' verbal disfluency in regard to CA levels.

5.4.4.2 Traits of Learners with Communication Apprehension. Specific to traits, five out of six teachers in this study claimed that learners with CA usually have introvert personality traits. The findings of this study further support the findings of Study 1, 2 and 3. In Study 1, it was found that extraversion personality trait negatively predicted learners' CA scores. Through a comparison of Study 2 and 3, it was found that extraversion personality traits were dominant among learners with low CA as compared to learners with high CA. This is in line with past studies on adult learners that found introversion personality to be

significantly associated with learners' CA (e.g., Neuliep et al., 2003; MacIntyre & MacKay, 2019; Malik et al., 2021). Therefore, this is indicative that introversion is a prominent trait among learners with high CA and it suggests that introversion could possibly be a factor that has led to the development of learners' CA.

Another trait that was highlighted by teachers in this study is low self-esteem among learners with CA. The association of low self-esteem with learners' anxiety has been established by past studies on adult learners (e.g., Campero-Oliart et al., 2020; Liu et al., 2022; Nguyen et al., 2019). Self-esteem is not a reality, i.e., it is not necessarily an accurate or inaccurate measure of one's accomplishments, rather it is an individuals' perception attributed to one's self-worth (Zeigler-Hill, 2013). A possible explanation for learners' low self-esteem is their poor academic performance (Aryana, 2010; Nguyen et al., 2019). Poor academic performance may lead to the development of low self-esteem among learners, which possibly affects their level of anxiety experiences. In addition, prolonged low self-esteem leads to a gradual increase in learners' anxiety throughout their academic progression (Liu et al., 2022). Therefore it highlights the need to motivate learners in order to increase their levels of self-esteem which may subsequently have a positive impact on learners' CA.

Three teachers perceived that learners with CA are usually emotionally sensitive in nature. The term sensitive used by teachers refer to learners' emotional sensitivity and vulnerability as teachers used the example of crying often as the construct of sensitive trait. The term sensitive, along with dramatic, and over-reactive, are often the colloquial terms used to describe individuals who are emotionally sensitive (Wall et al., 2018) and this trait among younger individuals is usually apparent in specific behaviours such as withdrawn, shy, and unable to take criticisms well (Shaughnessy & Lehtonen, 1998). Individuals who are inclined towards being emotionally sensitive usually experience an increase in emotional reactivity to situations as they may have an exaggerated reaction to even a slightly bad

situation (Wall et al., 2018) and may be unable to take or accept criticisms as well as their peers (Shaughnessy et al., 1995). This trait in particular, appears to be more apparent among young learners than adult learners as studies in the past that have explored traits and behaviours in relation to adult learners' CA have not reported on emotional sensitivity to be a prominent trait. Although past studies on adult learner have established that learners have a tendency to cry in situations that are anxiety provoking (e.g., Gregersen, 2003; Hewitt & Stephenson, 2012), it was mainly the act of crying that was reported as a result of the anxiety experienced. It is known that one may cry as a result of anxiety, however, it does not imply that one is emotionally sensitive.

5.4.5 Teacher Perceptions of Implications of Communication Apprehension

This study found that teachers had mixed perceptions of the effects of CA on academic performance. Three teachers perceived that learners' CA did not have an impact on their academic performance, while two teachers viewed that the presence of CA among learners negatively influenced their language learning process. and one teacher believed that learners' CA was a driving force in enhancing the classroom performance. This is not surprising as anxiety has been conceptualised as both facilitative and debilitative. Specific to debilitative anxiety, past studies have reported that CA has negative implications on learners' academic achievement (e.g., Blume et al., 2010; Joyce et al., 2006; McCroskey & Anderson, 1976; Watson & Monroe, 1990). Learners with high levels of anxiety have a tendency to not participate in classroom activities due to their internalised thoughts i.e., feeling of discouragement and lack of self-esteem, which subsequently leads to learners' low academic achievement (Na, 2007). In contrast, anxiety may also play a facilitative role as anxiety may be viewed as a form of motivation for one to work harder in order to achieve their target or goal (Hardacre & Guvendir, 2020). Anxiety that are facilitative have positive influence on

language learning and it can lead to instrumental motivation (Tsai & Chang, 2013). This is also evident in a past study by Zhang and Liu (2013) as learners perceived that their anxiety in the classroom facilitates their performance when it comes to assessments. However, Hardacre & Guvendir (2020) argued that anxiety specific to language learning contexts are predominantly debilitative as they lead to more severe negative implications. However, specific to speaking anxiety, it is more inclined towards having a debilitative effect instead of a facilitative one (Macayan et al., 2018). Nonetheless, it may be asserted that CA among young learners may play both a facilitative and debilitative role in the classroom context.

5.4.6 Implications

The findings of this study has highlighted the need for alignment between teachers' classroom practices and their awareness of CA phenomenon among young learners. Although teachers were found to have adequate awareness of learners' CA in terms of causes, characteristics, implications, and mitigation strategies, their reported classroom practices highlights contradictions to their awareness of CA among young learners. Thus, the findings of this study implicates the need for (i) professional development among teachers on young learners' CA and (ii) explicit awareness on the importance of addressing learners' CA in the classroom. In line with that, teachers should be made aware that although they have the awareness of the strategies that may mitigate learners' CA, they need to be cautious of their classroom practices and apply their existing knowledge of CA mitigation strategies in order to address learners' CA phenomenon in the classroom contexts.

5.4.7 Limitations

This study provides an insightful vision on young learners' CA in the classroom context. However, there were two limitations encountered in this present study. Firstly, one

limitation of the data collection instrument is that the interview questions on implications of CA were specific to academic performance. Although the focus of the interview questions were driven by the literature, it is possible that there are other possible implications of CA among learners beyond academic performance. Secondly, this study was focused on teachers' perceptions of learners' CA and data was not triangulated with learners' perceptions. Although past studies have predominantly focused on learners' experience of CA (e.g., Byrne et al., 2012; Carabeo & Juanillas, 2022; Francis & Miller, 2008; Malik et al., 2021), a decision was made to focus on teachers' perceptions in this study as I took into consideration the cognitive developmental stage of young learners and their ability to perform in-depth reflections (Borgers et al., 2000). However, regardless of their cognitive developmental level, a more comprehensive understanding of young learners' CA could have been obtained through triangulation of learners' perceptions of their experiences of CA in the classroom context.

5.4.8 Conclusion

The purpose of this study was to explore young learners' CA through their teachers' lenses. It was generally found that teachers' perceptions of young learners' CA is contextualised. Fear of making mistakes and being negatively evaluated for their mistakes were perceived to be the main causes of young learners' CA. Specific to this context, the fear of being evaluated and doubting their ability to answer the questions in English correctly may be reflective of learners in this context. In the Asian culture, there is a concept of 'losing face value', thus it may influence learners in avoiding the possibility of incorrectly answering the questions in the classroom. In addition, one of the ways in which teachers have suggested to be effective in mitigating learners' CA is by proving them sufficient time to respond. This is

particularly relevant to this context as Malaysian learners are from various language backgrounds, and they may not formulate their thoughts in the English language.

Based on teachers' perceptions of CA in this study, it was also found that there were interconnections between the perceived causes of CA and the effective mitigation strategies. Their perceptions indicated that teachers' perceptions of CA causes influences their choice of effective mitigation strategies. However, it was also found that their perceived effective CA mitigation strategies were not aligned with their reported classroom practices. Thus, highlighting the importance of creating the awareness of the misalignment between their perceptions of CA and their classroom practices in order for teachers to apply their CA knowledge and alleviate learners CA in the classroom.

Specific to the learner characteristics, the common traits of CA learners reported by teachers were introversion, sensitive, and low self-esteem. This further corroborates the findings of Study 1, 2, and 3 which found that learners with high CA usually have low extraversion personality traits. Through this study as well as Study 2 and Study 3, we are informed that specific to young learners, there is a tendency for learners to have high emotional sensitivity. In regard to learners' behaviours in the classroom it also strengthens the understanding gained from Study 2 and 3 that young learners who are highly anxious have a tendency to avoid eye contact, display agitative and rigid behaviours as well as not responding to teacher questions in the classroom.

This study has also found that teachers perceived that young learners' CA may be facilitative and debilitative in their academic performance in the classroom. Teachers were generally aware of the implications but had different views on how young learners' CA affects their academic performance. This is in line with past findings that have associated learners' CA with both facilitative and debilitative effects.

CHAPTER SIX: CONCLUSION

The aim of this thesis was to examine and explore CA among young 11-12 years old learners in the Malaysian primary school context. Driven by the McCroskey's CA continuum, social learning paradigm and communibiology paradigm, this research has highlighted that young learners' traits and classroom environment or contexts are important in understanding CA phenomenon. Past studies that have contributed to the understanding of CA phenomenon among learners have predominantly focused on adult learners and therefore it is unclear whether what is known from adult learners with CA are applicable to young learners. In addition, it was also found that there was a need to obtain teachers' perspectives of young learners' CA in order to obtain a more comprehensive understanding of the CA phenomenon. As such, mixed methods comprising survey, interviews, and observations were used to examine learners' individual traits and behaviours in association with learners' CA as well as teachers' perception of the causes, characteristics, implication and mitigation strategies of CA.

The structure of the thesis was guided by the four specific studies that were conducted. First, I examined the association of individual trait factors on CA. Then, I explored the behaviours of learners with high and low CA respectively during interaction with their English language teachers in the classroom. Lastly, I investigated Malaysian English language teachers' perceptions of young learners' CA. In this concluding chapter, I first provide a summary of the key findings from each study and then the significance and original contributions of the research, general implications and limitations, as well as suggestions for future research.

6.1 Summary of Key Findings

6.1.1 Study 1 - What are the associations of individual trait factors (i.e., gender, ethnicity, personality traits) and communication apprehension of Malaysian primary school learners?

In this study, I examined the association of individual trait factors i.e., gender, ethnicity, and personality traits, with young learners' CA. Contrary to past studies on adult learners (e.g., Jaasma, 1997; Lang et al., 1998; LaRochelle & Karpinski, 2016), my study found no differences in the occurrence of high CA vs non-high CA between the young male and female learners but the female gender positively predicted total CA and SCF scores. This study highlights that although female learners predicted higher CA scores, it does not necessarily mean that female learners will fall in the 'high CA' category at this young age as compared to male learners.

Specific to ethnicity, there were no differences in the occurrence of high CA vs non-high CA according to ethnicity (Malay, Chinese, Indian, and mixed-ethnicity) among the young learners. In addition, ethnicity did have an effect on the personality scores and Indian learners had statistically significant scores in most of the personality traits (openness, agreeableness, conscientiousness, and neuroticism), than certain ethnic groups. It was also found that the Indian ethnic group predicted all of the three subdimensions of CA (CCF, GCF, SCF) and Chinese ethnic group predicted GCF. An interesting finding was that the Indian learners did not predict the CA scores in the same direction as being Indian predicted low CCF scores but predicted high GCF and SCF scores. This study therefore indicates the importance of further examining ethnic attributes and its influence on learners' CA.

In addition to gender and ethnicity, this study also found that in regard to personality scores, high CA learners had significantly lower extraversion, openness, agreeableness, and conscientiousness scores, and higher neuroticism scores, compared to non-high CA learners.

However, out of the five personality traits, only three personality traits (i.e., extraversion, openness, and neuroticism) significantly predicted CA scores. Extraversion and openness negatively predicted total CA, CCF, GCF, and in contrast, neuroticism positively predicted total CA, GCF, SCF. As learners' neuroticism trait was not a significant predictor of classroom related CA, it suggests that the classroom environment may play a role along with extraversion and openness traits, rather than individuals' neurotic trait. Therefore, the findings of this study revealed that individual trait factors are associated with the young learners' CA scores. This is concurrent to past studies on adult learners that found personality traits i.e., extraversion and neuroticism to significantly predict CA scores (MacIntyre & MacKay, 2019; Neuliep et al., 2003), however this study adds that openness personality trait is a significant predictor of young learners' CA.

6.1.2 Study 2 - How do Malaysian primary school learners with high communication apprehension behave when answering teacher questions in English in the ESL classroom?

Following an understanding of personality traits, I explored the explicit behaviours that are associated with CA, by conducting observations and interviews to identify the behaviours of learners with high CA during interaction with the teacher in the ESL classroom. It was found that young learners with high CA in my study mainly produced simple answers or did not respond to the questions asked by their teachers in the classroom. It was observed that the quality of learner responses were associated with the quality of teacher questions. When teacher questions did not match learners' language proficiency and when they did not scaffold, it did not enhance the quality of learner responses and also did not mitigate learners' CA. Nonetheless, it is also possible that there could be two other factors that may have led to learners' limited or no response which are learners' lack of English language proficiency and learners' thoughts concerning their anxious state that may have

hindered their mental preparation to verbally respond or speak (Choi et al., 2015; Li & Liu, 2011).

This study also found that there were specific nonverbal behaviours that were prominently observed when the young learners were interacting with their teachers in the classroom. Firstly, learners often glanced away and engaged in gaze aversion behaviours, a behaviour that had been suggested learners wanting to avoid interactions with their teachers as a result of their high CA (Gregersen, 2005). Secondly, it was also found that learners frequently smiled when they were thinking or responding to the teachers' questions. While learners' smiles may be reflective of their lack of knowledge during interactions (Sert, 2013; Sert & Jacknick, 2015), frequent inappropriate smiling could also reflect attempts to mask their anxiety (Pitton et al., 1993; Yu & Gregg, 1993). Thirdly, it was found that young learners with high CA had a tendency to fidget and one learner was found to be very stiff while interacting with their teacher in the classroom. The findings of this study therefore suggests that there is no single or specific marker for the identification of CA in the classroom, rather a cumulation of behavioural markers that may be used to identify the possible presence of CA among young learners during interactions with teachers in the classroom.

6.1.3 Study 3 - How do Malaysian primary school learners with low communication apprehension behave when answering teacher questions in English in the ESL classroom?

In order to have a better understanding of the differences of behaviours among young learners with high CA and low CA, I explored the behaviours of learners with low CA during interaction with the teacher in the ESL classroom. My study found that young learners with low CA generally responded to teachers questions and attempted to answer even when they did not know the answers to the questions asked, which is a clear difference from high CA

learners in Study 2. Although it may be argued that language proficiency may have influenced the answers produced (Farahian & Rezaee, 2012; Lee & Ng, 2009), but it was apparent in the two low CA learners' in this study that even with low language proficiencies, they attempted to answer all teacher questions. In addition, the quality of answers produced were comparatively higher than high CA learners in Study 2 as low CA learners in this study produced more complete and complex sentences. However, similar to Study 2, learners predominantly responded in simple answers (consisting of three words and below) which may have been a result of teachers' questioning strategies as the length of responses by learners are influenced by the type teacher questions (Erlinda & Dewi, 2014; Wright, 2016). This further highlights the need for the use of a wider range of questioning strategies by Malaysian primary school teachers.

It was also observed in this study that young learners with low CA demonstrated specific nonverbal behaviours during the interaction with their teachers in the classroom, and this highlights the specific nuances in the way in which behaviours occurred among low CA learners as compared to high CA learners. Firstly, learners generally maintained eye contact with their respective teachers during interaction. Although they were observed to have engaged in glancing away behaviours, the way in which the behaviours occurred suggests that they glanced away as a result of their cognitive processes (Richmond et al., 2012) as the learners glanced away when they were thinking and processing information. Secondly, learners were also observed to have smiled during interactions with their teacher. However, the difference between low CA and high CA learners is that low CA learners smiled during instances in which there were talking about specific topics that were relevant to them, while high CA learners in Study 2 smiled throughout the interaction with their respective teachers. Thirdly, it was also found that high blinking rates were observed in two learners. Thus, in line with the comparison made between this study and Study 2, it may be indicative that blinking

rates are not an accurate indicator of CA which contradicts past studies on adult learners (e.g., Giannakakis, 2017; Gregersen, 2005; Lindberg et al., 2021). Fourthly, fidgeting was observed to be a prominent behaviour in one particular learner but it was reported that the behaviour was a habit which this particular learner often displayed even during instances of not engaging in any form of interactions. Therefore, the findings of this study highlight the need for caution in overgeneralising fidgeting behaviours to be an indicator of CA as found in Study 2, instead, there is a possibility of this behaviour to be engaged in out of habit.

6.1.4 Study 4 - How do English language teachers' perceive Malaysian primary school learners' communication apprehension?

In this final study, after understanding traits and behaviours of the learners through survey, interviews, and observations, I explored their teachers' perceptions of young learners' CA. It was found that teachers viewed fear of making mistakes and fear of negative evaluation to be the main contributing factors to the development of CA among young learners, which is concurrent to the past studies that focused on adult learners' CA (e.g., Hsu, 2004; Matsuoka, 2008; Sadighi & Dastpak, 2017). The presence of CA among learners was also highlighted by teachers to be reflective of certain observable characteristics among learners. These characteristics include specific traits such as introversion, sensitivity, and low self-esteem among learners, while teacher perceived specific behaviours such as lack of eye contact, agitative, and rigid body language, lack of verbal response and verbal disfluency to be indicative of learners' CA. These characteristics may be used to identify learners with CA in the classroom as teachers have pointed them out as an obvious difference between highly anxious and non-anxious learners. In addition, some of these traits (i.e., introversion/extraversion, sensitive) and behaviours (i.e., lack of eye contact, agitative, and rigid body language, lack of verbal response) pointed out by teachers are parallel with the

findings of Study 1, Study 2, and Study 3. In this study, teachers also viewed that CA among young learners may be facilitative as well as debilitative in regard to the influence on academic performance. It was also found that teachers viewed specific strategies to be effective in mitigating learners' CA and the most highly recommended strategy by teachers was encouraging learners to interact in the classroom. Teachers viewed that learners should be given opportunities to practice communication in the language with their peers and teachers as a way to help learners gradually build their confidence, and this is in line with the findings of past studies (e.g., Carter & Hansford, 1999; Tran & Moni, 2015).

A closer examination of the themes and teacher responses indicated that there are interconnections between the perceived causes and mitigation strategies. It was found that the teachers' suggestions of effective mitigation strategies were based on their perceptions of the causes of CA among learners. For instance, teachers viewed that learners experience CA as a result of their fear of making mistakes, and in line with this factor, it was highlighted that it may be effective to normalise the making of mistakes among learners in the classroom. Another example is that teachers perceived that language proficiency and lack of content knowledge leads to learners' CA, and in line with that, teachers highlighted the importance of strategizing question and answer sessions by avoiding forceful interactions and providing sufficient time for learners to respond. In addition to these connections between perceived causes and mitigation strategies, it was also found that there was a lack of alignment between the perceived mitigation strategies and the reported classroom practices. For instance, teachers perceived that it is important to normalise the making of mistakes, however, punishments were reported to be carried out for simple mistakes that learners made in the classroom. Similarly, teachers also reported that to reduce learners' CA, learners need to be encouraged and provided opportunities to interact, however, based on their reported practices, e.g., rigid rules and constant evaluation, it is questionable whether teachers are able

to implement the CA strategies as highlighted as their classroom practices appear to possibly act as a barrier for learners to interact and engage more in the classroom.

6.2 Significance and Original Contribution

This research has yielded findings that add original contribution to the understanding of CA phenomenon, focussing on young learners. Firstly, past studies have established that gender plays a role in the experiences of CA as female learners have been found to have a tendency to experience higher levels of CA (Lang et al., 1998; Loureiro et al., 2020; Rafek et al., 2014). However, in Study 1, through the quantitative analysis, it was found that there was no difference in the occurrence of high CA and non-high CA according to gender, while gender was found to play a small role in predicting the CA scores, and there are two possible explanations for this finding. The first explanation is, although female learners across the age group have a tendency to have higher CA, they may not necessarily have high CA (i.e., CA score of one SD above the sample mean) at the age of 11-12 years old. This finding has important implications for understanding that the significance of gender influence on CA at a young age is not as apparent as observed among adult learners in past studies. The second explanation is, it is important to differentiate high CA (i.e., CA score of one SD above the sample mean) from just merely having higher CA scores than other population group (but not one SD below the mean sample) in future research. This study has indicated that this cut off point for high and low CA is not sufficient to understand the differences in this target age group, as at a young age, this study found that female learners have a tendency to have only slightly higher CA scores than young male learners. Although past studies have found strong associations of gender and CA, my research cautions that young learners' high CA may not be associated with the innate attributes of gender at a young age.

The second contribution of my research is it adds to the broader knowledge of the personality as contributing traits to young learners' CA. While past research focused on extraversion and neuroticism (Hsu, 2004; Jung and McCroskey, 2004; MacIntyre & MacKay, 2019; Neuliep et al., 2003), by using the big five personality model, the studies in this research not just supported those past findings but showed that agreeableness, conscientiousness, and openness also are associated with young learners' CA. More specifically, openness to criticism has the potential to mitigate CA among learners with low language proficiency. Additionally, instead of viewing CA as a blend of neuroticism and extraversion personality traits, Study 1 showed these two traits did not predict all CA scores. Neuroticism only predicts total CA, GCF, SCF but not CCF, while extraversion on the other hand only predicts total CA, CCF, GCF but not SCF. In addition, this research has further highlighted that specific to young learners, emotional sensitivity is a trait that is prevalent among young learners with high CA and past studies on adult learners have not reported emotional sensitivity to be a trait among learners with CA.

Thirdly, this research also contributed to knowledge on the behaviours of young learners with high and low CA, which is a stepping stone for future studies on young learners' CA. This research found that young learners with high CA have a tendency to not maintain eye contact, fidget, have a stiff body posture, and smile often during interactions as compared to young learners with low CA (see Table 6.1). These specific behaviours observed share similarities and differences with adult learners from past studies. For instance, the lack of eye contact and fidgeting behaviours are concurrent to the behaviours of highly anxious adult learners (Gregersen, 2005; Lindberg et al., 2021; Zhiping & Paramasivam, 2013). In line with behavioural differences, this study found that smiling behaviour was prominent among young learners with high CA and this greatly differs from the findings of past studies that have focused on adult learners' behaviours (e.g., Gregersen, 2005; Lindberg et al., 2021).

In addition, this research highlights that a single behaviour should not be used as an indicator for CA as the variability of behaviours shown in Study 2 and Study 3 point towards the need to consider a combination of behaviours, and the nuances of the behaviours for the identification of CA among learners. Based on the findings of this research, Table 6.1 specifies the behaviours displayed by high CA and low CA learners as well as the differences and similarities found in the occurrence of behaviours. These specific behaviours displayed by the case study learners in this research may be used to develop future studies to specifically identify young learners' CA during interactions in the classroom context as well to further examine the behavioural indicators of young learners' CA. In addition, these behaviours may also be used by English language teachers to understand the possible nuances in behaviours that may be displayed by high CA and low CA learners respectively.

Table 6.1

Behaviours Displayed by High CA and Low CA Learners in this Research

BEHAVIOUR(S)	HIGH CA	LOW CA
GAZE	*Differences*	
	• Generally does not create eye contact during interactions • Specific instances of glance away and gaze aversion behaviours - When questions are being asked - When responding and answering questions - After responding and answering questions	• Generally creates eye contact during interactions • Specific instances of glance away and gaze aversion behaviours - Thinking of answers (Recreates eye contact when responding and answering questions) - Seeking help from friends
	Similarities	
	• Specific instances of glance away and gaze aversion behaviours - While thinking of answers	
BODY MOVEMENT AND LANGUAGE	*Differences*	
	• Have a tendency to frequently fidget throughout interactions • Specific instances of fidgeting behaviours - When questions are being asked - When thinking of answers - After responding and answering questions • Have a tendency to display rigid body posture	• Generally less frequent fidgeting behaviours • Have a tendency to display open and relaxed body posture

	Similarities	
	• Specific instances of fidgeting behaviours - When responding and answering questions	
SMILE	*Differences*	
	• Have a tendency to smile throughout interactions • Specific instances of smiling behaviours - When questions are being asked - When their names are called - After responding and answering questions - Unable to respond or answer the questions • Smiling behaviour often paired with glancing away gaze behaviour	• Have a tendency to smile only during specific instances • Specific instances of smiling behaviours - While thinking of answers
	Similarities	
	• Specific instances of smiling behaviours - When responding and answering questions on topics of interest or topics that are of high relevance to them - When unsure of answers	
VERBAL RESPONSES	*Differences*	
	• Have a tendency to remain silent and do not attempt to answers questions	• Generally attempts to answer questions even when unsure of answers • Volunteers to answers questions in the classroom
	Similarities	
	• The quality of answers and responses are based on learners' level of language proficiency and quality of teacher questions	

Fourthly, this research also provides methodological contribution as this research meaningfully incorporated qualitative and quantitative approaches for the examination and exploration of CA in classroom contexts. Past studies have heavily relied on evaluating and understanding learners' CA through self-reports, and limited studies have incorporated qualitative methods in understanding learners' CA (e.g., Byrne et.al, 2012; Dwyer, 2000; Francis & Miller, 2008). In addition, there is a lack of understanding of learners' anxiety in real-life classroom contexts as past studies have predominantly conducted experiment based observations (e.g., Giannakakis et al., 2017; Harrigan & O'Connell, 1996; Hirokawa et al., 2004; Lindberg et al., 2021). This research was able to meaningfully contribute knowledge on young learners' CA in real-life classroom contexts, through the use of recorded observations and eye trackers. Although past studies that have utilised experiment based observations have been able to contribute to the understanding of anxiety related behaviours, experimental protocol often creates or induces specific anxiety states in order to observe learners' behaviours (Lindberg et al., 2021) which may subsequently eliminate environmental and external factors such as peers' presence and classroom based interactions. In this research, observing learners' behaviours in the real-life classroom context enabled behaviours such as (i) creating eye contacts with friends during interactions with teachers, (ii) volunteering to answer teacher questions, as well as (iii) engagements with classroom objects (e.g., whiteboard, textbook), to be taken into consideration.

Fifthly, although Study 2, 3, and 4 show that teachers have awareness of behaviours relevant to learners' CA and the effective CA mitigation strategies, however, their classroom practices are not aligned with their awareness of the behaviours and mitigation strategies. It was found that teachers did not promote quality engagements in the classroom through their questions and did not scaffold to prompt learners during classroom interactions. In addition, teachers also reported implementation of rigid rules and punishments in the classroom which

highlights the lack of alignment between their awareness of CA mitigation strategies and their reported classroom practices. These findings are indicative of teachers having adequate awareness of learners' CA, but do not effectively mitigate learners' CA in the English language classrooms.

Sixthly, in relation to the lack of understanding on CA experiences in various multi-ethnic contexts, this research revealed that ethnicity plays a role in learners' CA. It was found that specific ethnic groups significantly predicted CA scores, i.e., the Indian ethnic group predicted CCF, GCF, SCF scores, while the Chinese ethnic group predicted GCF score. These findings highlight the influence that ethnicity may have on CA is dependent of the communicative context or situation. Indian learners were found to predict lower CA in classroom contexts, suggesting that specific attributes of the Indian ethnic learners enabled them to be more comfortable and less anxious to communicate in the classroom. Additionally, there are possible specific attributes of Indian and Chinese ethnic learners that lead to greater CA in general, and stranger communicative contexts. As this research was not designed to identify the specific ethnic attributes that have led to Indian learners' lower CCF as well as Indian and Chinese learners' higher GCF, the findings obtained could be attributed to the Indian learners' higher openness and extraversion mean scores than the other ethnic groups. In line with these significant findings on learners' ethnicity and CA, this research highlights the importance of further examining ethnic attributes in greater level to understand how learners' ethnicity plays a role in their CA across various communicative contexts.

In relevance to (i) McCroskey's (1983) conceptualisation that CA that may be specific to traits and the situation, or a combination of both, (ii) social learning paradigm that views CA to be nurture based, and (iii) communibiology paradigm that views CA to be nature based, this research has shown that individual trait factors such as personality, gender, and ethnicity are associated with young learners' CA in general and in specific situations

(e.g., communication in the classroom, communication with strangers). Thus, this research has highlighted that both traits and environment are important in understanding learners' CA phenomenon, and these two factors play a role in learners' CA.

6.3 Implications

This thesis provides implications in the area of CA. Table 6.2 provides a summary of all implications listed in each study. In line with the specific implications of each study, this thesis offers several broad and key implications based on the overall findings of this research. Firstly, one of the key implications of this research is the knowledge obtained on traits that are associated with young learners' CA. This research has strengthened that traits such as extraversion, openness, and neuroticism are significantly associated with young learners' CA. In addition, the findings of this research indicate that the emotional sensitivity trait to be relevant among young learners with CA. This further contributes to the knowledge of young learners' CA and highlights the trait to be different from adult learners. Although it is possible that past studies may not have explored emotional sensitivity of adult learners in relation to CA, this research demonstrated that this emotional sensitivity trait is a dominant trait among young learners who experience CA. It has been indicated that emotional sensitivity can be reflected through several traits including withdrawn, shy, and unable to take criticisms well (Shaughnessy & Lehtonen, 1998). Thus, teachers may use traits reflecting high extraversion, high openness, low neuroticism, and high emotional sensitivity to understand the tendencies of young learners to develop CA.

Table 6.2

Summary of Implications of Each Study

	Implications			
Study 1	Highlights the importance of individual trait factors such as gender, ethnicity, and the big five personality traits on learners CA, which supports the communibiology paradigm as well as highlight other traits that are not within the paradigm.	Demonstrates that CA levels among learners within a multi-ethnic context should not be over generalised	Teachers may use the individual traits of learners as a tool to understand the possible tendencies of CA among young learners	Highlights the importance of creating a safe and positive environment in the classroom as neuroticism was not a significant predictor of CCF.
Study 2 & Study 3	Emphasises that there may be differences found in the behaviours of young learners with high CA and behaviours of adult learners	Emphasises that it is important to understand nuances in the nonverbal behaviours and include in the instruments to assess CA among young learners	Contributes knowledge on young learners' behaviours in relation to high CA that the teachers may use as a guide to identify and understand learners with high CA	Highlights the need to build teacher skills in relation to their questioning and interaction strategies.
Study 4	Highlights the need for alignment between teachers' classroom practices and their awareness of CA phenomenon			

Secondly, another implication of this research is that there are specific behaviours found to be prevalent among young learners during interaction in the classroom which future studies and teachers could use to objectively identify learners with high and low CA in the classroom context. The findings of this research indicates that it is important to use these behaviours as cumulative markers of learners' CA, rather than identifying CA based on individual behaviours. For example, when learners have prolonged lack of eye contact, frequent inappropriate smiles, and fidget, or have a stiff posture while interacting with teachers, it may be the cumulative indicator that learners may be experiencing CA. Conversely, learners demonstrating only one behaviour e.g., fidget, may not be a reliable indicator of CA. In addition, the nuances in these behaviours found in this research may be used as a tool to differentiate and identify low CA and high CA learners. These nuances as a tool, can be used more meaningfully and effectively when teachers take note of when and under what circumstances certain behaviours most likely to occur and what seems to be happening after these behaviours occur that may be causing them to continue. By using this information as a comprehensive guide in identifying CA during interaction, it would subsequently enable teachers to understand how specific topics and questions may trigger CA among learners.

This research also has specific implication on the language learning classroom context. The findings of this research suggests that young learners experience CA when interacting with teacher during question and answer sessions. Learners have a tendency to not respond to teacher questions and remain silent as a result of their CA. Thus, this suggest that teachers should facilitate quality engagements through their questioning strategies. It was found that teachers predominantly asked closed and clarification questions, which in turn prompted learners to produce short responses. Thus, in order for teachers to promote engagements among learners with high CA, teachers need to scaffold interactions in the

classroom by applying questioning strategies that would elicit more complete and complex responses. For instance, teachers should ask questions that require learner to elaborate further especially on contents and topics that they may be familiar with. In addition, teachers should also use clarification questions with prompts that would provide learners with guidance in responding to the questions, rather than using clarification questions that merely ask learners for more examples and further elaboration without providing stimulus of ideas.

6.4 Limitations

Each of the specific studies conducted in this research contains methodological limitations as presented in the respective chapters. In line with the specific limitations of each study, there are four limitations that are important to be acknowledged; (i) distribution of participants, (ii) instruments used, (iii) data collection protocol, and (iv) triangulation of data.

Firstly, this research was unable to obtain an equal distribution of learners' demographic backgrounds. Although national schools were the main target in this research as it was presumed that national schools would be representative of Malaysian learners in regard to the main ethnic groups (Joseph, 2008), this research was unable to have a balanced representation of the ethnic groups. This research used convenience sampling and therefore, there was no control over the learner participants in the respective schools selected for this research. Within the conveniently selected schools in this research, there were greater number of learners from specific ethnicities (i.e., Malay and Indian ethnicity). Although the survey was also administered in a national-type Chinese school, the learner population in this school was comparatively low. As a result, the observations conducted mainly comprised of learners of Malay and Indian ethnicity. In addition, as this research was exploratory in nature, there was only one female learner participant across all ten case studies. Thus, although the findings of this research indicated the importance of understanding the gender differences in

learners' CA, this research could not further expand on the behavioural indicators of CA according to gender.

Secondly, there were limitations in this research specific to the instruments used. It was decided that PPTQ-C and the PRCF instruments were suitable to measure young learners' personality traits and CA respectively, as they were specifically developed for young individuals, taking into consideration their level of cognitive development. However, there were low internal consistencies of these instruments as reported in this research, which may be due to the adaptation of the instruments and also specific to this particular context. Therefore, although good internal consistencies were previously reported for these instruments (Keaten et al., 1997; Mackiewicz & Cieciuch's, 2016), there needs to be caution in using these instruments in similar or different contexts. In addition, the behaviour coding scheme that was adopted in this study may have restricted the behaviours observed and noted, as this coding scheme was developed based on adult learners. As there is a lack of existing behaviour coding schemes specifically for the identification of CA among young learners, it was decided that this behaviour coding scheme by Lindberg et al. (2021) was appropriate for the purpose of this research. Nonetheless, it is important to acknowledge the possibility that this research may have not included all possible CA behavioural markers specific to young learners.

Thirdly, another limitation of this research that needs to be highlighted is the data collection protocol. The observation of behaviours that were analysed in this research were based on two-minute interactions and this restricted the amount of data that was collected on the observable behaviours of learners. The decision of the interactional duration to be observed in this research was made based on (i) the pilot study in which teachers indicated that a duration of two minutes to be a naturally occurring interaction duration in an ESL classroom, as well as (ii) past studies that explored behaviours of highly anxious individuals

(e.g., Cartwright-Hatton et al., 2003; Lewin et al, 1996). However, the past studies were focused on oral presentations and public speaking contexts, and it was realised through this study that for interactions in the classroom with teachers, a longer duration may have allowed for a more comprehensive observation of learners' behaviours.

Fourthly, the data obtained from teacher interviews and observations was not further validated by learners' perspectives. Although learners were interviewed on their experiences of CA, their preferences of eye contact as well as how they generally feel during interactions, the observed behaviours were not further strengthened by the learners' point of view. Similarly, learners' perceptions of the causes of CA and preferred strategies were not obtained to further consolidate teachers' perceptions. Although the decision was made in this research to not explore learners' in-depth perceptions due to their cognitive stage in which their cognitive functioning begins to fully develop only during mid adolescence (Borgers et al., 2000), it was realised upon conducting this research, that in addition to the observations and teacher interviews, obtaining learners' points of view may have been able to further strengthen the understanding of CA obtained from this research.

6.5 Suggestions for Future Research

Driven by the limitations and findings of this research, there are several suggestions for future research specific to young learners' CA.

Firstly, future studies should focus on examining CA among young learners of Chinese ethnicity in Malaysia. Although the participants of this study represented all major ethnic groups in Malaysia, the sample of Chinese learners were small in this study. As sample distribution plays an important role in yielding culture specific representation, further studies should be undertaken to further verify the findings of this study specific to ethnic traits. There is also a need for in-depth studies to be conducted on the influence of ethnicity variables on

learners' CA. This research found that ethnicity was a factor that was associated with learners' CA, therefore further examination of the way in which ethnicity influences learners' CA may yield a more comprehensive understanding of learners' CA.

Secondly, future studies should be cautious of using the PPTQ-C instrument to examine learners' personality trait scores due to the low internal consistency obtained in this research. As it is possible that the low internal consistency may be a result of this specific context, there needs to be further studies conducted to examine the reliability of this instrument across a wide range of contexts.

Thirdly, based on the findings of this research, it is recommended that future studies examining learners' behaviours in the classroom context should increase the observation duration. This study was designed based on past studies that predominantly focused on adult learners' behaviours in oral presentations and public speaking contexts. However, it was found that the duration of two minutes did not sufficiently provide information on learners' verbal disfluencies during interactions with teachers in the classroom. As such, replicating this study through longer observation durations may be able to further contribute to the understanding of learners' verbal disfluencies in the classroom context.

Fourthly, there is a need to further verify the observed behaviours of young learners in this study across of wide range of contexts. It is possible that specific behaviours observed in this study may be culturally influenced, as such replicating this study in a wide range of context may further verify these observed behaviours of young learners. This would subsequently inform of the differences of young learners behaviours in regard to CA in different cultural contexts.

Fifthly, as discussed previously, the use of eye trackers obstructed the view and did not allow for brow movements to be observed. As such, it is important for future studies to conduct observations of young learners' behaviours with and without the use of mobile eye

trackers. This would therefore allow both the eye movement behaviours and brow behaviours to be observed.

Sixthly, future studies should also obtain a more comprehensive view of teacher perceptions on the association of traits and young learners' CA. Although this research obtained teachers' views on young learners' traits in association with CA, the trait was predominantly focused on learners' personalities. As Study 1 found that other trait factors (gender and ethnicity) were associated with CA, it is important for future studies to obtain teachers' views on learners' traits which may include gender and ethnicity factors. Therefore, by further examining teachers' perceptions on the association of learner trait factors with CA, the findings of this research would be further strengthened.

Seventhly, it is also recommended that future studies should examine and explore the implications of CA beyond just learners' academic performance. This study found that learners' CA may have both a positive and negative implication on their academic performance. However, as the interview questions were focused on academic performance based on the current literature, it is possible that there are other unexplored areas that learners' CA may have implications on. Thus, it is important for future studies to explore other possible effects that CA may have on young learners.

Lastly, this research has shed light on aspects of the teacher's role that require further examination. More specifically there is a need for future studies to examine the role of teachers' questioning strategies on learners with CA as it was observed in this research that teachers did not appear to have promoted quality engagements with learners based on their type of questions in the classroom. In addition, there were specific classroom practices reported by teachers (e.g., punishments and rigid rules) that need further examination on the influence of these classroom practices on young learners' CA specific to the Malaysian context.

6.6 Conclusion

This research aimed to examine and explore CA phenomenon among young learners. This chapter has particularly provided an overall view of the research and clarified how the objectives of this research were achieved. I found that specific traits and behaviours were prevalent among young learners with CA. There are differences and similarities that exist among young learners in this study and adult learners as informed by the literature. This further strengthened the importance of this research's findings as it has contributed knowledge and understanding on CA phenomenon specific to young learners. While the literature has greatly informed on CA among adult learners, this study has contributed to a holistic understanding of young learners' CA experiences specific to classroom interactions in terms of causes, traits, behaviours, implications, and mitigation strategies. Thus, the current research provides a stepping stone for future studies to focus on CA specific to young learners as it is important to identify and address learners' CA as early as possible. In conclusion, CA among young learners in the classroom is an existing problem that needs to be addressed and teachers play an important role as they need to be cautious of their classroom practices and carefully mitigate learners' CA.

REFERENCES

Abdullah, M. H., & Wong, B. E. (2006). Listening to the ethnic voice in ESL learning. *The English Teacher*, *35*(1), 15–26.

Agustrianita, Suherdi, D., & Purnawarman, P. (2019). Teachers' perception on students' learning style and their teaching. *Indonesian Journal of Curriculum and Educational Technology Studies*, *7*(1), 11–19. https://doi.org/10.15294/ijcets.v6i2.25328

Al-Samarrai, B. N., & Alsalhi, N. R. (2023). Openness to experience, divergent thinking, and gender differences: Domain and facet traits. *Information Sciences Letters*, *12*(1), 269–276. https://doi.org/10.18576/isl/120122

Allen, M., & Bourhis, J. (1996). The relationship of communication apprehension to communication behavior: A meta-analysis. *Communication Quarterly*, *44*(2), 214–226. https://doi.org/10.1080/01463379609370011

Allik, J. (2005). Personality dimensions across cultures. *Journal of Personality Disorders*, *19*(3), 212–232.

Allport, G. W. (1961). *Pattern and growth in personality*. Holt, Rinehart and Winston.

Alrabai, F. (2015). The influence of teachers' anxiety-reducing strategies on learners' foreign language anxiety. *Innovation in Language Learning and Teaching*, *9*(2), 163–190. https://doi.org/10.1080/17501229.2014.890203

Alter, P., & Haydon, T. (2017). Characteristics of effective classroom rules: A review of the literature. *Teacher Education and Special Education*, *40*(2), 114–127. https://doi.org/10.1177/0888406417700962

Anandari, C. L. (2015). Indonesian EFL students' anxiety in speech production: Possible causes and remedy. *TEFLIN Journal - A Publication on the Teaching and Learning of English*, *26*(1), 1. https://doi.org/10.15639/teflinjournal.v26i1/1-16

Angrosino, M. V. (2007). *Naturalistic observation*. Left Coast Press.

Apascaritei, P., Demel, S., & Radl, J. (2021). The difference between saying and doing: Comparing subjective and objective measures of effort among fifth graders. *American Behavioral Scientist*, *65*(11), 1457–1479. https://doi.org/10.1177/0002764221996772

Arnold, N. (2007). Reducing foreign language communication apprehension with computer-mediated communication: A preliminary study. *System*, *35*(4), 469–486. https://doi.org/10.1016/j.system.2007.07.002

Arumugam, N., Kaur, K., Supramaniam, K., & Thayalan, X. (2017). Code switching in ESL speaking class: How & why? *Journal of Institutional Research South East Asia*, *15*(1), 121–132.

Aryana, M. (2010). Relationship between self-esteem and academic achievement amongst pre-university students. *Journal of Applied Science*, *10*(20), 2474–2477.

Asendorpf, J. B., & Aken, M. A. G. van. (2003). Validity of big five personality judgments in childhood: A 9 year longitudinal study. *European Journal of Personality*, *17*, 1–17. https://doi.org/10.1002/per.460

Asif, F. (2017). The anxiety factors among Saudi EFL learners: A study from English language teachers' perspective. *English Language Teaching*, *10*(6), 160–173. https://doi.org/10.5539/elt.v10n6p160

Atasheneh, N., & Izadi, A. (2012). The role of teachers in reducing/increasing listening comprehension test anxiety: A case of Iranian EFL learners. *English Language Teaching*, *5*(3), 178–187. https://doi.org/10.5539/elt.v5n3p178

Ayres, J. (1986). Perceptions of speaking ability: An explanation for stage fright. *Communication Education*, *35*(3), 275–287. https://doi.org/10.1080/03634528609388350

Azarfam, A. A. Y., & Baki, R. (2012). Exploring language anxiety regarding speaking skill in Iranian EFL learners in an academic site in Malaysia. *International Journal of Applied Linguistics and English Literature*, *1*(2), 153–162. https://doi.org/10.7575/ijalel.v.1n.2p.153

Aziz, A. A., & Kashinathan, S. (2021). ESL learners' challenges in speaking English in Malaysian classroom. *International Journal of Academic Research in Progressive Education and Development*, *10*(2), 983–991. https://doi.org/10.6007/ijarped/v10-i2/10355

Azman, H. (2009). Implementation and challenges of English language education reform in Malaysian primary schools. *The Southeast Asian Journal of English Language Studies*, *23*(3), 65–78.

Babapoor, M., Seifoori, Z., & Chehreh, M. (2018). Intermediate EFL learners' shyness, communication apprehension, and the accuracy/fluency of their oral performance. *Research in English Language Pedagogy*, *6*(2), 205–222. https://doi.org/10.30486/relp.2018.542580

Bahrami, F., & Yousefi, N. (2011). Females are more anxious than males: A metacognitive perspective. *Iranian Journal of Psychiatry and Behavioral Sciences*, *5*(2), 83–90.

Banbury, M. M., & Hebert, C. R. (1992). Do you see what I mean? Body language in classroom interactions. *Teaching Exceptional Children*, 34–38.

Barrett, P. M., Sonderegger, R., & Sonderegger, N. L. (2001). Evaluation of an anxiety-prevention and positive-coping program (FRIENDS) for children and adolescents of non-English-speaking background. *Behaviour Change*, *18*(2), 78–91.

Baumeister, R. F., Vohs, K. D., DeWall, C. N., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation.

Personality and Social Psychology Review, *11*(2), 167–203. https://doi.org/10.1177/1088868307301033

Beatty, M. J. (1987). Communication apprehension as a determinant of avoidance, withdrawal, and performance anxiety. *Communication Quarterly*, *35*(2), 202–217. https://doi.org/10.1080/01463378709369681

Beatty, M. J., Kruger, M. W., & Springhorn, R. G. (1976). Toward the development of cognitively experienced speech anxiety scales. *Central States Speech Journal*, *27*(3), 181–185. https://doi.org/10.1080/10510977609367890

Beatty, M. J., & McCroskey, J. C. (2000). Theory, scientific evidence, and the communibiological paradigm: Reflections on misguided criticism. *Communication Education*, *49*(1), 36–44. https://doi.org/10.1080/03634520009379191

Beatty, M. J. & McCroskey, J. C. (2009). A communibiological perspective on communication apprehension. In J. A. Daly, J. C. McCroskey, J. Ayres, T. Hopf, D. M.

Beatty, M. J., & McCroskey, J. C, Valencic, K. M. (2001). The Biology of Communication: A Communibiological Perspective. Cresskill, NJ: Hampton Press, Inc

Beatty, M. J., McCroskey, J. C., & Heisel, A. D. (1998). Communication apprehension as temperamental expression: A Communibiological paradigm. *Communication Monographs*, *65*(3), 197–219. https://doi.org/10.1080/03637759809376448

Beatty, M. J., & Pascual-Ferrá, P. (2016). Communication apprehension. In *The International Encyclopedia of Interpersonal Communication*. https://doi.org/10.1002/9781118540190.wbeic0099

Beesdo, K., Knappe, S., & Pine, D. S. (2009). Anxiety and anxiety disorders in children and adolescents: Developmental issues and implications for DSM-V. In *Psychiatric Clinics*

of North America (Vol. 32, Issue 3, pp. 483–524). https://doi.org/10.1016/j.psc.2009.06.002

Behnke, R. R., Sawyer, C. R., & King, P. E. (1987). The communication of public speaking anxiety. *Communication Education*, *36*(2), 138–141. https://doi.org/10.1080/03634528709378654

Bentivoglio, A. R., Bressman, S. B., Cassetta, E., Carretta, D., Tonali, P., & Albanese, A. (1997). Analysis of blink rate patterns in normal subjects. *Movement Disorders*, *12*(6), 1028–1034.

Birgili, B., Kiziltepe, Z., & Seggie, F. N. (2016). Teaching method preferences of teachers: The cooperative teaching method. *World Studies in Education*, *17*(2), 37–52. https://doi.org/10.7459/wse/17.2.04

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*, *26*(13), 1802–1811. https://doi.org/10.1177/1049732316654870

Blume, B. D., Baldwin, T. T., & Ryan, K. C. (2013). Communication apprehension: A barrier to students' leadership, adaptability, and multicultural appreciation. *Academy of Management Learning and Education*, *12*(2), 158–172. https://doi.org/10.5465/amle.2011.0127

Blume, B. D., Dreher, G. F., & Baldwin, T. T. (2010). Examining the effects of communication apprehension within assessment centres. *Journal of Occupational and Organizational Psychology*, *83*, 663–671. https://doi.org/10.1348/096317909X463652

Bodie, G. D. (2010). A racing heart, rattling knees, and ruminative thoughts: Defining, explaining, and treating public speaking anxiety. *Communication Education*, *59*(1), 70–105. https://doi.org/10.1080/03634520903443849

Bolls, P. D., & Tan, A. (1996). Communication anxiety and teacher communication competence among Native American and Caucasian students. *Communication Research Reports*, *13*(2), 205–213. https://doi.org/10.1080/08824099609362088

Booth-Butterfield, S., & Gould, M. (1986). The Communication Anxiety Inventory: Validation of State-and Context-Communication Apprehension. *Communication Quarterly*, *34*, 194–205.

Borgers, N., Leeuw, E. le, & Hox, J. (2000). Children as respondents in survey research: Cognitive development and response quality. *Bulletin de Methodologie Sociologique*, *66*, 60–75.

Bourhis, J., Allen, M., & Wells, W. (1993). *School and home environments as contributing factors in the development of communication apprehension in children*.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic analysis. In *Handbook of Research Methods in Health Social Sciences* (pp. 843–860). Springer Singapore. https://doi.org/10.1007/978-981-10-5251-4_103

Brown, D. (2016). The type and linguistic foci of oral corrective feedback in the L2 classroom: A meta-analysis. *Language Teaching Research*, *20*(4), 436–458. https://doi.org/10.1177/1362168814563200

Bucholz, J. L., & Sheffler, J. L. (2009). Creating a warm and inclusive classroom environment: Planning for all children to feel welcome. *Electronic Journal for Inclusive Education*, *2*(4).

Burden, P. (2004). The teacher as facilitator: Reducing anxiety in the EFL university classroom. *JALT Hokkaido Journal* , *8*, 3–18.

Burgoon, J. K., & Koper, R. J. (1984). Nonverbal and relational communication associated with reticence. *Human Communication Research Zy*, *10*(4), 601–626.

Burk, J. (2001). Communication apprehension among Master's of Business Administration students: Investigating a gap in communication education. *Communication Education*, *50*(1), 51–58.

Busato, V. v, Prins, F. J., Elshout, J. J., & Hamaker, C. (1998). The relation between learning styles, the Big Five personality traits and achievement motivation in higher education. *Personality and Individual Differences*, *26*(1), 129–140.

Butler, J. F. (1986). Personality characteristics of subjects high and low in apprehension about communication. *Perceptual and Motor Skills*, *63*(3), 895–898.

Butler, Y. G. (2015). English language education among young learners in East Asia: A review of current research (2004-2014). *Language Teaching*, *48*(3), 303–342. https://doi.org/10.1017/S0261444815000105

Byrne, M., Flood, B., & Shanahan, D. (2012). A Qualitative Exploration of Oral Communication Apprehension. *Accounting Education*, *21*(6), 565–581. https://doi.org/10.1080/09639284.2012.725636

Campbell, M. A., & Rapee, R. M. (1996). Current issues in the assessment of anxiety in children and adolescents: A developmental perspective. *Behaviour Change*, *13*(3), 185–193. https://doi.org/10.1017/S0813483900004952

Campero-Oliart, A., Lovelace, C. T., & Levitan, L. C. (2020). Contexts of communication apprehension and their relation to self-esteem. *Journal of Psychological Reserach*, *25*(1), 42–53. https://doi.org/10.24839/2325-7342.JN25.1

Can, S., & Daloglu, A. (2022). A classroom research study on use of oral corrective feedback at an EFL university. *I-Manager's Journal on English Language Teaching*, *12*(1), 39–55.

Carabeo, L. A., & Juanillas, J. (2022). Communication apprehension continuum in the new normal: A grounded theory. *International Journal of Theory and Application in Elementary and Secondary School Education*, *4*(1), 1–12. https://doi.org/10.31098/ijtaese.v4i1.612

Carr, H. A., & Kingsbury, F. A. (1938). The concept of traits. *Psychological Review*, *45*(6), 497–524. https://doi.org/10.1037/h0063048

Carrell, L. J., & Willmington, S. C. (1998). The relationship between self–report measures of communication apprehension and trained observers' ratings of communication competence. *Communication Reports*, *11*(1), 87–95. https://doi.org/10.1080/08934219809367688

Carter, M.-A., & Hansford, B. (1999). Reducing high levels of communication apprehension among primary school students: Can teachers make a difference? *Australian Journal of Guidance and Counselling*, *9*(2), 129–146. https://doi.org/10.1017/s1037291100003988

Carter, R., Silverman, W. K., & Jaccard, J. (2011). Sex variations in youth anxiety symptoms: Effects of pubertal development and gender role orientation. *Journal of Clinical Child and Adolescent Psychology*, *40*(5), 730–741. https://doi.org/10.1080/15374416.2011.597082

Cartwright-Hatton, S., Hodges, L., & Porter, J. (2003). Social anxiety in childhood: The relationship with self and observer rated social skills. *Journal of Child Psychology and Psychiatry*, *44*(5), 737–742.

Case, R., Demetriou, A., Platsidou, M., & Kazi, S. (2001). Integrating concepts and tests of intelligence from the differential and developmental traditions. *Intelligence*, *29*, 307–336.

Cepon, S. (2016). Teachers' and students' perspectives on the reasons for speaking anxiety in English for specific purposes. *ESP Today*, *4*(2), 184–201. https://doi.org/10.18485/esptoday.2016.4.2.3

Chin, V., Ling, T. H., & Yih, Y. J. (2016). Investigating English language anxiety among UiTM Sarawak Undergraduates. *Journal of Creative Practices in Language Learning and Teaching (CPLT)*, *4*(1), 50–62.

Choi, I., & Choi, Y. (2002). Culture and self-concept flexibility. *Personality and Social Psychology Bulletin*, *28*(11), 1508–1517. https://doi.org/10.1177/014616702237578

Choi, C. W., Honeycutt, J. M., & Bodie, G. D. (2015). Effects of imagined interactions and rehearsal on speaking performance. *Communication Education*, *64*(1), 25–44. https://doi.org/10.1080/03634523.2014.978795

Chuang, C.-H. (2019). University teachers' strategies for alleviating EFL learner anxiety. *Journal of Asia TEFL*, *16*(2), 691–700. https://doi.org/10.18823/asiatefl.2019.16.2.17.691

Coetzee, S. A., Schmulian, A., & Kotze, L. (2014). Communication apprehension of South African accounting students: The effect of culture and language. *Issues in Accounting Education*, *29*(4), 505–525. https://doi.org/10.2308/iace-50850

Cole, J. G., & McCroskey, J. C. (2003). The association of perceived communication apprehension, shyness, and verbal aggression with perceptions of source credibility and affect in organizational and interpersonal contexts. *Communication Quarterly*, *51*(1), 101–110. https://doi.org/10.1080/01463370309370143

Cooper, K. M., Downing, V. R., & Brownell, S. E. (2018). The influence of active learning practices on student anxiety in large-enrollment college science classrooms. *International Journal of STEM Education*, *5*(23). https://doi.org/10.1186/s40594-018-0123-6

Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, *13*(6), 653–665.

Costa, P. T., McCrae, R. R., & Ockenhoff, C. E. L. (2019). Personality across the life span. *Annual Review Psychology*, *70*, 423–448. https://doi.org/10.1146/annurev-psych-010418

Craig, A., & Tran, Y. (2006). Fear of speaking: Chronic anxiety and stammering. *Advances in Psychiatric Treatment*, *12*, 63–68. https://doi.org/10.1192/apt.12.1.63

Creswell, J. W. (2011). *Designing and conducting mixed methods research* (V. L. Plano and Clark, 2nd ed.). SAGE Publication.

Creswell, J. W. (2014). *Research design : Qualitative, quantitative, and mixed methods approaches* (4th edition). SAGE Publication.

Creswell, J. W., & Clark, V. L. P. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publication.

Cristobal, J. A., & Lasaten, R. C. (2018). Oral communication apprehension and academic performance of grade 7 students. *Asia Pacific Journal of Multidisciplinary Research*, *6*(3), 5–16.

Crocker, W., Klopf, D., & Cambra, R. (2016). Communication apprehension and its educational implications: Some initial Australian data. *The Australian Journal of Education*, *23*(3), 262–269.

Daly, J. A., & Friedrich, G. (1981). The development of communication apprehension: A retrospective analysis of contributory correlates. *Communication Quarterly*, *24*(4), 243–255.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97–140. https://doi.org/10.1080/10888691.2018.1537791

Davila, M., & Kornienko, O. (2022). Making, keeping, and influencing friends: The role of fear of negative evaluation and gender in adolescent networks. *School Psychology*. https://doi.org/10.1037/spq0000481

de Gelder, B. (2006). Towards the neurobiology of emotional body language. *Nature Reviews Neuroscience*, *7*, 242–249.

Demetriou, A. (2004). Mind,intelligence,and development: A cognitive,differential,and developmental theory of intelligence. In A Demetriou & A. Raftopoulos (Eds.), *Cognitive developmental change: Models, methods, and measurement* (pp. 21–73). Cambridge University Press.

Department of Statistics Malaysia. (2021). *Current population estimates Malaysia 2021*. www.mycensus.gov.my

Dewaele, J.-M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, *4*(2), 237–274. https://doi.org/10.14746/ssllt.2014.4.2.5

Dewaele, J., Magdalena, A. F., & Saito, K. (2019). The effect of perception of teacher characteristics on Spanish EFL learners' anxiety and enjoyment. *Modern Language Journal*, *103*(2), 412–427. https://doi.org/10.1111/modl.12555

Dewaele, J. M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety: The effect of teacher and learner variables. *Language Teaching Research*, *22*(6), 676–697. https://doi.org/10.1177/1362168817692161

DeYoung, C. G. (2006). Higher-order factors of the big five in a multi-informant sample. *Journal of Personality and Social Psychology*, *91*(6), 1138–1151. https://doi.org/10.1037/0022-3514.91.6.1138

Dhindsa, H. S. (2010). Teacher communication in Bruneian secondary science classes: Wait-time. *Asia Pacific Journal of Educators and Education*, *25*, 73–88.

Donovan, L. A., & MacIntyre, P. D. (2004). Age and sex differences in willingness to communicate, communication apprehension, and self-perceived competence. *Communication Research Reports*, *21*(4), 420–427. https://doi.org/10.1080/08824090409360006

Durkin, K. (2008). The adaptation of East Asian masters students to western norms of critical thinking and argumentation in the UK. *Intercultural Education*, *19*(1), 15–27. https://doi.org/10.1080/14675980701852228

Duronto, P. M., Nishida, T., & Nakayama, S. (2005). Uncertainty, anxiety, and avoidance in communication with strangers. *International Journal of Intercultural Relations*, *29*, 549–560.

Dwyer, K. K. (2000). The multidimensional model: teaching students to self-manage high communication apprehension by self-selecting treatments. *Communication Education*, *49*(1), 72–81.

Dwyer, K. K., & Cruz, A. M. (1998). Communication apprehension, personality, and grades in the basic course: Are there correlations? *Communication Research Reports*, *15*(4), 436–444. https://doi.org/10.1080/08824099809362143

Ekman, P. (1992). *Telling lies: Clues to deceit in the marketplace politics and marriage*. W W - Norton & Company.

Ekman, P., & Friesen, W. V. (1969). The repertoire of non-verbal behavior: Categories, origins, usage, and coding. *Semiotica*, *1*(1), 49–98.

Ekman, P., & Friesen, W. V. (1982). Felt, false and miserable smiles. *Journal of Noverbal Behavior*, *6*(4), 238–252.

Elliott, E. A., & Jacobs, A. M. (2013). Facial expressions, emotions, and sign languages. *Frontiers in Psychology*, *4*(MAR). https://doi.org/10.3389/fpsyg.2013.00115

Ercan, I., Yazici, B., Sigirli, D., Ediz, B., & Kan, I. (2007). Examining Cronbach alpha, theta, omega reliability coefficients according to the sample size. *Journal of Modern Applied Statistical Methods*, *6*(1), 291–303. https://doi.org/10.22237/jmasm/1177993560

Erlinda, R., & Dewi, S. R. (2014). Teacher's questions in EFL classroom. *Ta'dib*, *17*(2), 177–188.

Eysenck, M. W. (2013). Anxiety and cognitive performance. In *Handbook of psychology of emotions: recent theoretical perspectives and novel empirical findings* (Vol. 1, pp. 87–100).

Farahian, M., & Rezaee, M. (2012). A case study of an EFL teacher's type of questions: An investigation into classroom interaction. *Procedia - Social and Behavioral Sciences*, *47*, 161–167. https://doi.org/10.1016/j.sbspro.2012.06.631

Feyter, T. de, Caers, R., Vigna, C., & Berings, D. (2012). Unraveling the impact of the Big Five personality traits on academic performance: The moderating and mediating effects of self-efficacy and academic motivation. *Learning and Individual Differences*, *22*, 439–448. https://doi.org/10.1016/j.lindif.2012.03.013

Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th edition). SAGE Publication.

Filipiak, S., & Łubianka, B. (2019). Big five personality traits among Polish students facing the transformations of the education system. *Current Issues in Personality Psychology*, *7*(2), 98–108. https://doi.org/10.5114/cipp.2019.85553

Filipiak, S., & Lubianka, B. (2021). On the rocky road to independence: Big five personality traits and locus of control in polish primary school students during transition into early adolescence. *International Journal of Environmental Research and Public Health*, *18*(9). https://doi.org/10.3390/ijerph18094564

Fleeson, W., & Jayawickreme, E. (2014). Whole trait theory. *Journal of Research in Personality*, *56*, 82–92. https://doi.org/10.1016/j.jrp.2014.10.009

Flyman-Mattsson, A. (1999). *Students' communicative behaviour in a foreign language classroom* (No. 47; pp. 39–57). Lund University.

Francis, T. A., & Miller, M. T. (2008). Communication apprehension: Levels of first–generation college students at 2–year institutions. *Community College Journal of Research and Practice*, *32*(1), 38–55. https://doi.org/10.1080/10668920701746688

Frank, M. G., & Ekman, P. (1993). Not all smiles are created equal: The differences between enjoyment and nonenjoyment smiles. *Humor*, *6*(1), 9–26.

Fredriksen, K., & Rhodes, J. (2004). The role of teacher relationships in the lives of students. *New Directions for Youth Development*, *102*, 45–54.

Friman, P. C., Hayes, S. C., & Wilson, K. G. (1998). Why behavior analysts should study emotion: The example of anxiety. *Journal of Applied Behavior Analysis*, *31*(1), 137–156. https://doi.org/10.1901/jaba.1998.31-137

Furr, R. M. (2009). Personality psychology as a truly behavioural science. *European Journal of Personality*, *23*, 369–401. https://doi.org/10.1002/per.724

Gallego, A., McHugh, L., Penttonen, M., & Lappalainen, R. (2022). Measuring public speaking anxiety: Self-report, behavioral, and physiological. *Behavior Modification*, *46*(4), 782–798. https://doi.org/10.1177/0145445521994308

Garrison, J. P., & Garrison, K. R. (1979). Measurement of oral communication apprehension among children: A factor in the development of basic speech skills. *Communication Education*, *28*(2), 119–128. https://doi.org/10.1080/03634527909378340

Garnefski, N., Legerstee, J., Kraaij, V., van den Kommer, T., & Teerds, J. (2002). Cognitive coping strategies and symptoms of depression and anxiety: A comparison between

adolescents and adults. *Journal of Adolescence*, *25*, 603–611. https://doi.org/10.1006/jado.2002.0507

Giannakakis, G., Pediaditis, M., Manousos, D., Kazantzaki, E., Chiarugi, F., Simos, P. G., Marias, K., & Tsiknakis, M. (2017). Stress and anxiety detection using facial cues from videos. *Biomedical Signal Processing and Control*, *31*, 89–101. https://doi.org/10.1016/j.bspc.2016.06.020

Ginsburg, G. S., Pella, J. E., Ogle, R. R., DeVito, A., Raguin, K., & Chan, G. (2021). Teacher knowledge of anxiety and use of anxiety reduction strategies in the classroom. *Journal of Psychologists and Counsellors in Schools*, 1–11. https://doi.org/10.1017/jgc.2021.26

Gkonou, C., & Miller, E. R. (2019). Caring and emotional labour: Language teachers' engagement with anxious learners in private language school classrooms. *Language Teaching Research*, *23*(3), 372–387. https://doi.org/10.1177/1362168817728739

Goberman, A. M., Hughes, S., & Haydock, T. (2011). Acoustic characteristics of public speaking: Anxiety and practice effects. *Speech Communication*, *53*, 867–876. https://doi.org/10.1016/j.specom.2011.02.005

Goldberg, L. R. (1990). An alternative description of personality: The big-five factor structure. *Journal of Personality and Social Psychology*, *59*(6), 12–16.

Gradman, H. L., & Hanania, E. (1991). Language learning background factors and ESL proficiency. *The Modern Language Journal*, *75*(1), 39–51.

Gregersen, T. (2003). To err is human: A reminder to teachers of language-anxious students. *Foreign Language Annals*, *36*(1), 25–32.

Gregersen, T. (2005). Nonverbal cues: Clues to the detection of foreign language anxiety. *Foreign Language Annals*, *38*(3), 388–400.

Gregersen, T. (2007). Breaking the code of silence: A study of teachers' nonverbal decoding accuracy of foreign language anxiety. *Language Teaching Research*, *11*(2), 209–221. https://doi.org/10.1177/1362168807074607

Gregersen, T., & Horwitz, E. K. (2002). Language learning and perfectionism: Anxious and non-anxious language learners' reactions to their own oral performance. *The Modern Language Journal*, *86*(4), 562–570.

Gregersen, T., Macintyre, P. D., & Olson, T. (2017). Do you see what I feel? An idiodynamic assessment of expert and peer's reading of nonverbal language anxiety cues. In C. Gkonou, M. Daubney, & J.-M. Dewaele (Eds.), *New Insights into Language Anxiety: Theory, Research and Educational Implications* (pp. 110–134).

Gregersen, T., Meza, M. D., & Macintyre, P. D. (2014). The motion of emotion: Idiodynamic case studies of learners' foreign language anxiety. *The Modern Language Journal*, *98*(2), 574–588. https://doi.org/10.1111/j.1540-4781.2014.12084.x

Gudykunst, W. B., & Nishida, T. (2001). Anxiety, uncertainty, and perceived effectiveness of communication across relationships and cultures. *International Journal of Intercultural Relations*, *25*, 55–71.

Gullone, E., King, N. J., & Ollendick, T. H. (2001). Self-reported anxiety in children and adolescents: A three-year follow-up study. *The Journal of Genetic Psychology*, *162*(1), 5–19. https://doi.org/10.1080/00221320109597878

Gursoy, E., & Ozcan, E. N. (2018). Perceptions and linguistic cctions of bilingual speakers of Turkish and English: An explanatory study. *Advances in Language and Literary Studies*, *9*(6), 212.

Hachfeld, A., Anders, Y., Schroeder, S., Stanat, P., & Kunter, M. (2010). Does immigration background matter? How teachers' predictions of students' performance relate to student

background. *International Journal of Educational Research*, *49*, 78–91. https://doi.org/10.1016/j.ijer.2010.09.002

Hall, J. K., & Walsh, M. (2002). Teacher-student interaction and language learning. *Annual Review of Applied Linguistics*, *22*, 186–203.

Hallinan, M. T. (2008). Teacher influences on students' attachment to school. *Sociology of Education*, *81*, 271–283.

Hammick, J. K., & Lee, M. J. (2014). Do shy people feel less communication apprehension online? the effects of virtual reality on the relationship between personality characteristics and communication outcomes. *Computers in Human Behavior*, *33*, 302–310.

Hanneman, R. A., Kposowa, A. J., & Riddle, M. D. (2013). *Basic statistics for social research*. John Wiley & sons.

Hapsari, W. (2013). Teachers' perceived characteristics and preferences of motivational strategies in the language classroom. *TEFLIN Journal*, *24*(2), 113–134.

Hardacre, B., & Guvendir, E. (2020). Second language learning anxiety. *The TESOL Encyclopedia of English Language Teaching*, 1–7. https://doi.org/10.1002/9781118784235.eelt0988

Hardre, P. L., Davis, K. A., & Sullivan, D. W. (2008). Measuring teacher perceptions of the "how" and "why" of student motivation. *Educational Research and Evaluation*, *14*(2), 155–179. https://doi.org/10.1080/13803610801956689

Hardre, P. L., & Sullivan, D. W. (2009). Motivating adolescents: High school teachers' perceptions and classroom practices. *Teacher Development*, *13*(1), 1–16. https://doi.org/10.1080/13664530902858469

Hardy, B. W. (2014). Candidate traits and political choice. In K. Kenski & K. H. Jamieson (Eds.), *The Oxford Handbook of Political Communication* (pp. 437–450). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199793471.001.0001

Harrigan, J. A., & O'connell, D. M. (1996). How do you look when feeling anxious? Facial displays of anxiety. *Personality and Individual Differences*, *21*(2), 205–212.

Harris, C. R., & Alvarado, N. (2005). Facial expressions, smile types, and self-report during humour, tickle, and pain. *Cognition and Emotion*, *19*(5), 655–669. https://doi.org/10.1080/02699930441000472

Harrison, J. C. (2008). *Redefining stuttering: What the struggle to speak is really about* (12th ed.). National Stuttering Association.

Hashemi, M., & Abbasi, M. (2013). The role of the teacher in alleviating anxiety in language classes. *International Research Journal of Applied and Basic Sciences*, *4*(3), 640–646.

Hazel, M., Keaten, J., & Kelly, L. (2014). The relationship between personality temperament, communication reticence, and fear of negative evaluation. *Communication Research Reports*, *31*(4), 339–347. https://doi.org/10.1080/08824096.2014.963219

He, D. (2013). What makes learners anxious while speaking English: A comparative study of the perceptions held by university students and teachers in China. *Educational Studies*, *39*(3), 338–350. https://doi.org/10.1080/03055698.2013.764819

He, D. (2017). How to cope with foreign language speaking anxiety effectively? The case of university students in China. *Electronic Journal of Foreign Language Teaching*, *14*(2), 159–174.

Heerey, E. A., & Crossley, H. M. (2013). Predictive and reactive mechanisms in smile reciprocity. *Psychological Science*, *24*(8), 1446–1455. https://doi.org/10.1177/0956797612472203

Heerey, E. A., & Kring, A. M. (2007). Interpersonal consequences of social anxiety. *Journal of Abnormal Psychology*, *116*(1), 125–134. https://doi.org/10.1037/0021-843X.116.1.125

Hewitt, E., & Stephenson, J. (2012). Foreign language anxiety and oral exam performance: A replication of Phillips's MLJ study. *Modern Language Journal*, *96*(2), 170–189. https://doi.org/10.1111/j.1540-4781.2011.01174.x

Heyman, R. E., Lorber, M. F., Eddy, J. M., & West, T. V (2014). Behavioral observation and coding. In *Handbook of Research Methods in Social and Personality Psychology* (pp. 345–372). Cambridge University Press. https://doi.org/10.1017/cbo9780511996481.018

Hickson, M., & Stacks, D. W. (2010). Biological views of communication. *Review of Communication*, *10*(4), 263–275. https://doi.org/10.1080/15358593.2010.503278

Hirokawa, K., Yagi, A., & Miyata, Y. O. (2004). Comparison of blinking behavior during listening to and speaking in Japanese and English. *Perceptual and Motor Skills*, *98*, 463–472.

Hlatshwayo, A. (2015). The effectiveness of tutor questions in university tutorials: A case study. *Journal of Social Sciences*, *45*(2), 140–146. https://doi.org/10.1080/09718923.2015.11893495

Ho, D. G. E. (2005). Why do teachers ask the questions they ask? *RELC Journal*, *36*(3), 297–310. https://doi.org/10.1177/0033688205060052

Hogg, M. A., & Abrams, D. (1998). *Social identifications: A social psychology of intergroup relations and group processes*. Routledge.

Holley, L. C., & Steiner, S. (2005). Safe space: Student perspectives on classroom environment. *Journal of Social Work Education*, *41*(1), 49–64. https://doi.org/10.5175/JSWE.2005.200300343

Honeycutt, J. M., Choi, C. W., & DeBerry, J. R. (2009). Communication apprehension and imagined interactions. *Communication Research Reports*, *26*(3), 228–236. https://doi.org/10.1080/08824090903074423

Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics*, *21*, 112–126.

Horwitz, E. K. (2010). Foreign and second language anxiety. *Language Teaching*, *43*(2), 154–167. https://doi.org/10.1017/S026144480999036X

Horwitz, E. K. (2017). On the misreading of Horwitz, Horwitz and Cope (1986) and the need to balance anxiety research and the experiences of anxious language learners. In C. Gkonou, M. Daubney, & J. M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 31–47). Blue Ridge Summit .

Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, *70*(2), 125–132. https://doi.org/10.1111/j.1540-4781.1986.tb05256.x

Horwitz, E. K., & Young, D. J. (1991). Language anxiety: from theory and research to classroom implications. *System*, *20*(4), 542–544. https://doi.org/10.1016/0346-251X(92)90069-F

Hsu, C. F. (2004). Sources of differences in communication apprehension between Chinese in Taiwan and Americans. *Communication Quarterly*, *52*(4), 370–389. https://doi.org/10.1080/01463370409370207

Hu, R.-J. S. (2011). The relationship between demotivation and EFL learners' English language proficiency. *English Language Teaching*, *4*(4), 88–96. https://doi.org/10.5539/elt.v4n4p88

Huang, Y.-Y., Liu, C.-C., Wang, Y., Tsai, C.-C., & Lin, H.-M. (2017). Student engagement in long-term collaborative EFL storytelling activities: An analysis of learners with

English proficiency differences. *Educational Technology & Society*, *20*(3), 95–109. https://doi.org/10.2307/26196122

Hunter, K. M., Westwick, J. N., & Haleta, L. L. (2014). Assessing success: The impacts of a fundamentals of speech course on decreasing public speaking anxiety. *Communication Education*, *63*(2), 124–135. https://doi.org/10.1080/03634523.2013.875213

Idrus, H., & Salleh, R. (2008). Perceived self-efficacy of Malaysian ESL engineering and technology students on their speaking ability and its pedagogical implications. *The English Teacher*, *37*(1), 61–75.

Inada, T. (2021). Teachers' strategies for decreasing students' anxiety levels to improve their communicative skills. *English Language Teaching*, *14*(3), 32–41. https://doi.org/10.5539/elt.v14n3p32

Ishi, C. T., Ishiguro, H., & Hagita, N. (2014). Analysis of relationship between head motion events and speech in dialogue conversations. *Speech Communication*, *57*, 233–243. https://doi.org/10.1016/j.specom.2013.06.008

Jaasma, M. A. (1997). Classroom communication apprehension: Does being male or female make a difference? *Communication Reports*, *10*(2), 219–228. https://doi.org/10.1080/08934219709367677

Jackson, J. (2002). Reticence in second language case discussions: Anxiety and aspirations. *System*, *30*, 65–84.

Jackson, J. (2003). Case-based learning and reticence in a bilingual context: Perceptions of business students in Hong Kong. *System*, *31*, 457–469. https://doi.org/10.1016/j.system.2003.03.001

Jahangiri, M., Rajab, A., Jahangiri, A., Honarvar, A., & Sharid, H. R. (2014). Disambiguating the relationship between language learning anxiety (LLA) and oral performance: A

reconceptualization of facilitative vs. debilitative anxieties. *Journal of Psychiatry*, *17*(6). https://doi.org/10.4172/1994-8220.1000154

Jalaluddin, N. H., Awal, N. M., & Bakar, K. A. (2008). The mastery of English language among lower secondary school students in Malaysia: A linguistic analysis. *European Journal of Social Sciences*, *7*(2), 106–119.

Jalleh, C. M., Mahfoodh, O. H. A., & Singh, M. K. M. (2021). Oral Communication Apprehension among Japanese EFL International Students in a Language Immersion Program in Malaysia. *International Journal of Instruction*, *14*(2), 155–178.

Jarick, M., & Bencic, R. (2019). Eye contact is a two-way street: Arousal is elicited by the sending and receiving of eye gaze information. *Frontiers in Psychology*, *10*(1262).

Jensen, M., & Emanuelsson, L. M. (2016). Integrated communication systems and kinesic code-switching in interpersonal interaction. *Journal of Studies in Social Sciences*, *14*(2), 127–165.

Jiang, Y., & Dewaele, J. M. (2019). How unique is the foreign language classroom enjoyment and anxiety of Chinese EFL learners? *System*, *82*, 13–25. https://doi.org/10.1016/j.system.2019.02.017

Jin-Young, K. (2015). The effect of personality, situational factors, and communication apprehension on a blended communication course. *Indian Journal of Science and Technology*, *8*(1), 528–534. https://doi.org/10.17485/ijst/2015/v8is1/60760

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). The Big-Five Inventory-Version 4a and 54. *Berkeley, CA: Berkeley Institute of Personality and Social Research, University of California*.

John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative big five trait taxonomy: History, measurement, and conceptual issues. In O P John, R. W.

Robins, & l A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114–158).

John, O. P., & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. In L. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., Vol. 2, pp. 102–138). Guilford. https://doi.org/citeulike-article-id:3488537

Jones, K. T., & Procopio, C. H. (2017). Mentoring at-risk middle school students to reduce communication apprehension. *Mentoring and Tutoring: Partnership in Learning*, *25*(2), 185–201. https://doi.org/10.1080/13611267.2017.1326692

Joseph, C. (2008). Ethnicities and education in Malaysia: Difference, inclusions and exclusions. In G. Wan (Ed.), *The Education of Diverse Student Populations: A Global Perspective* (pp. 183–208). https://doi.org/10.1007/978-1-4020-8204-7_10

Joyce, J., Hassall, T., Montaño, J. L. A., & Anes, J. A. D. (2006). Communication apprehension and maths anxiety as barriers to communication and numeracy skills development in accounting and business education. *Education and Training*, *48*(6), 454–464. https://doi.org/10.1108/00400910610692967

Jung, H. Y., & McCroskey, J. C. (2004). Communication apprehension in a first language and self-perceived competence as predictors of communication apprehension in a second language: A study of speakers of English as a second language. *Communication Quarterly*, *52*(2), 170–181.

Kalra, R., & Siribud, S. (2020). Public speaking anxiety in the Thai EFL context. *Language Education and Acquisition Research Network Journal*, *13*(1), 195–209.

Kashima, Y., Kokubo, T., Kashima, E. S., Boxall, D., Yamaguchi, S., & Macrae, K. (2004). Culture and self: Are there within-culture differences in self between metropolitan areas

and regional cities? *Personality and Social Psychology Bulletin*, *30*(7), 816–823. https://doi.org/10.1177/0146167203261997

Kassem, M. A. M. (2018). Improving EFL students' speaking proficiency and motivation: A hybrid problem-based learning approach. *Theory and Practice in Language Studies*, *8*(7), 848–859. https://doi.org/10.17507/tpls.0807.17

Kassner, M., Patera, W., & Bulling, A. (2014). Pupil: An open source platform for pervasive eye tracking and mobile gaze-based interaction. *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication*, 1151–1160. https://doi.org/10.1145/2638728.2641695

Kaur, M. (2022). Investigation of factors influencing Malaysian ESL learners' English speaking skills. *International Journal of Advanced Research in Education and Society*, *4*(2), 1–6. https://doi.org/10.55057/ijares.2022.4.2.1

Keaten, J., Kelly, L., Pribyl, C.B. (1997). Communication apprehension in Japan: Grade school through secondary school. *International Journal of Intercultural Relations, 21*(3), 319-343.

Kelly, L. (1982). A rose by any other name is still a rose- A comparative analysis of reticence, communication apprehension, unwillingness to communicate and shyness. *Human Communication Research*, *8*(2), 99–113.

Kendall, P. C., & Ollendick, T. H. (2004). Setting the research and practice agenda for anxiety in children and adolescence: A topic comes of age. *Cognitive and Behavioral Practice*, *11*, 65–74.

Kim, S.-Y. (2009). Questioning the stability of foreign language classroom anxiety and motivation across different classroom contexts. *Foreign Language Annals*, *42*(1), 138–157.

Kim, S.-Y. (2010). Is foreign language classroom anxiety context free or context dependent? *Foreign Language Annals*, *43*(2), 187–189.

Kim, Y. Y. (2006). From ethnic to interethnic: The case for identity adaptation and transformation. *Journal of Language and Social Psychology*, *25*(3), 283–300. https://doi.org/10.1177/0261927X06289429

Knapp, M. L., Hall, J. A., & Horgan, T. G. (2012). *Nonverbal communication in human interaction* (8th ed.). Wadsworth, Cengage Learning.

Knight, M. L., Johnson, K. G., & Stewart, F. (2016). Reducing student apprehension of public speaking: Evaluating effectiveness of group tutoring practices. *Learning Assistance Review*, *21*(1), 21–54.

Konovalova, I., Antolin, J. v., Bolderston, H., & Gregory, N. J. (2021). Adults with higher social anxiety show avoidant gaze behaviour in a real-world social setting: A mobile eye tracking study. *PLoS ONE*, *16*(10). https://doi.org/10.1371/journal.pone.0259007

Kopecky, C. C., Sawyer, C. R., & Behnke, R. R. (2004). Sensitivity to punishment and explanatory style as predictors of public speaking state anxiety. *Communication Education*, *53*(3), 281–285. https://doi.org/10.1080/0363452042000265206

Korte, R. F. (2007). A review of social identity theory with implications for training and development. *Journal of European Industrial Training*, *31*(3), 166–180. https://doi.org/10.1108/03090590710739250

Kristensen, A. S., Mortensen, E. L., & Mors, O. (2009). The association between bodily anxiety symptom dimensions and the scales of the Revised NEO Personality Inventory and the Temperament and Character Inventory. *Comprehensive Psychiatry*, *50*, 38–47. https://doi.org/10.1016/j.comppsych.2008.06.005

Kumar, G. J., Athilakshmi R, Maharishi R, & Maya R. (2015). Relationship between fear of negative evaluation and anxiety. *International Journal of Indian Psychology*, *3*(1). https://doi.org/10.25215/0301.101

Kurdi, V., Archambault, I., Brière, F. N., & Turgeon, L. (2018). Need-supportive teaching practices and student-perceived need fulfillment in low socioeconomic status elementary schools: The moderating effect of anxiety and academic achievement. *Learning and Individual Differences*, *65*, 218–229. https://doi.org/10.1016/j.lindif.2018.06.002

Lamb, M. E., Chuang, S. S., Wessels, H., Broberg, A. G., & Hwang, C. P. (2002). Emergence and construct validation of the big five factors in early childhood: A longitudinal analysis of their ontogeny in Sweden. *Child Development*, *73*(5), 1517–1524.

Lang, N. P., Rock, L., Rowland-Morin, P. A., & Coe, N. P. W. (1998). Identification of communication apprehension in medical students starting a surgery rotation. *The American Journal of Surgery*, *176*(1), 41–45.

LaRochelle, J. M., & Karpinski, A. C. (2016). Racial differences in communication apprehension and interprofessional socialization in fourth-year Doctor of Pharmacy students. *American Journal of Pharmaceutical Education*, *80*(1), 1–9.

Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. The Guilford Press.

Lee, J. S. (2012). The effects of the teacher-student relationship and academic press on student engagement and academic performance. *International Journal of Educational Research*, *53*, 330–340. https://doi.org/10.1016/j.ijer.2012.04.006

Lee, Y., & Kinzie, M. B. (2012). Teacher question and student response with regard to cognition and language use. *Instructional Science*, *40*(6), 857–874. https://doi.org/10.1007/s11251-011-9193-2

Lee, W., & Ng, S. (2009). Reducing student reticence through teacher interaction strategy. *ELT Journal*, *64*(3), 302–313. https://doi.org/10.1093/elt/ccp080

Leikanger, E., Ingul, J. M., & Larsson, B. (2012). Sex and age-related anxiety in a community sample of Norwegian adolescents. *Scandinavian Journal of Psychology*, *53*, 150–157. https://doi.org/10.1111/j.1467-9450.2011.00915.x

Leppanen, J. M., & Hietanen, J. K. (2007). Is there more in a happy face than just a big smile? *Visual Cognition*, *15*(4), 468–490. https://doi.org/10.1080/13506280600765333

Lewin, M. R., McNeil, D. W., & Lipson, J. M. (1996). Enduring without avoiding: Pauses and verbal dysfluencies in public speaking fear. *Journal of Psychopathology and Behavioral Assessment*, *18*(4), 387–402.

Leys, C., Delacre, M., Mora, Y. L., Lakens, D., & Ley, C. (2019). How to classify, detect, and manage univariate and multivariate outliers, with emphasis on pre-registration. *International Review of Social Psychology*, *32*(1). https://doi.org/10.5334/irsp.289

Li, X., & Jia, X. (2006). Why don't you speak up?: East Asian students' participation patterns in American and Chinese ESL classrooms. *Intercultural Communication Studies*, *15*(1), 192–206.

Li, H., & Liu, Y. (2011). A brief study of reticence in ESL class. *Theory and Practice in Language Studies*, *1*(8), 961–965. https://doi.org/10.4304/tpls.1.8.961-965

Lie, T. (2018). The effect of active learning strategies on communication apprehension in information systems students in Taiwan. *IEEE Transactions on Professional Communication*, *61*(1), 101–109. https://doi.org/10.1109/TPC.2017.2747378

Lindberg, R., McDonough, K., & Trofimovich, P. (2021). Investigating verbal and nonverbal indicators of physiological response during second language interaction. *Applied Psycholinguistics*, *42*(6), 1403–1425. https://doi.org/10.1017/S014271642100028X

Liu, A., Yu, Y., & Sun, S. (2023). How is the Big Five related to college students' anxiety: The role of rumination and resilience. *Personality and Individual Differences*, *200*. https://doi.org/10.1016/j.paid.2022.111901

Liu, H.-J. (2012). Understanding EFL undergraduate anxiety in relation to motivation, autonomy, and language proficiency. *Electronic Journal of Foreign Language Teaching*, *9*(1), 123–139.

Liu, M. (2006). Anxiety in Chinese EFL students at different proficiency levels. *System*, *34*, 301–316. https://doi.org/10.1016/j.system.2006.04.004

Liu, M., & Jackson, J. (2011). Reticence and anxiety in oral English lessons: A case study in China. *Researching Chinese Learners*, 119–137. https://doi.org/10.1057/9780230299481_6

Liu, X., Cao, X., & Gao, W. (2022). Does low self-esteem predict anxiety among Chinese college students? *Psychology Research and Behavior Management*, *15*, 1481–1487. https://doi.org/10.2147/PRBM.S361807

Loewen, S. (2018). Focus on Form Versus Focus on Forms. In *The TESOL Encyclopedia of English Language Teaching* (pp. 1–6). John Wiley & Sons, Inc. https://doi.org/10.1002/9781118784235.eelt0062

Loureiro, M., Loureiro, N., & Silva, R. (2020). Differences of gender in oral and written communication apprehension of university students. *Education Sciences*, *10*(12), 1–20.

Lukasik, K. M., Waris, O., Soveri, A., Lehtonen, M., & Laine, M. (2019). The relationship of anxiety and stress with working memory performance in a large non-depressed sample. *Frontiers in Psychology*, *10*(4). https://doi.org/10.3389/fpsyg.2019.00004

Lyster, R. (2002). Negotiation in immersion teacher-student interaction. *International Journal of Educational Research*, *37*, 237–253. https://doi.org/10.1016/S0883-0355(03)00003-X

Lyster, R., Saito, K., & Sato, M. (2013). Oral corrective feedback in second language classrooms. *Language Teaching*, *46*(1), 1–40. https://doi.org/10.1017/S0261444812000365

Macayan, J. V., Quinto, E. J. M., Otsuka, J. C., & Cueto, A. B. S. (2018). Influence of language learning anxiety on L2 speaking and writing of Filipino engineering students. *3L: Language, Linguistics, Literature*, *24*(1), 40–55. https://doi.org/10.17576/3L-2018-2401-04

MacIntyre, P. D. (1995). How does anxiety affect second language learning? A reply to Sparks and Ganschow. *The Modern Language Journal*, *79*(1), 90–99. https://doi.org/10.2307/329395

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, *44*(2), 283–305. https://doi.org/10.1111/j.1467-1770.1994.tb01103.x

MacIntyre, P. D., & MacKay, E. (2019). Desire for control and personality as predictors of three communication traits in a public speaking context. *Current Issues in Personality Psychology*, *7*(3), 212–219. https://doi.org/10.5114/cipp.2019.89167

Mackiewicz, M., & Cieciuch, J. (2016). Pictorial personality traits questionnaire for children (PPTQ-C): A new measure of children's personality traits. *Frontiers in Psychology*, *7*, 1–11. https://doi.org/10.3389/fpsyg.2016.00498

Maher, K., & King, J. (2020). Observing anxiety in the foreign language classroom: Student silence and nonverbal cues. *Journal for the Psychology of Language Learning*, *2*, 116–141.

Mahyuddin, R., Elias, H., Cheong, L. S., Muhamad, M. F., Noordin, N., & Abdullah, M. C. (2006). The relationship between students' self efficacy and their English language achievement. *Jurnal Pendidik Dan Pendidikan*, *21*, 61–71.

Mak, B. (2011). An exploration of speaking-in-class anxiety with Chinese ESL learners. *System*, *39*, 202–214. https://doi.org/10.1016/j.system.2011.04.002

Mak, B. S.-Y., & White, C. (1996). Communication apprehension of Chinese ESL students. *Hong Kong Journal for Applied Linguistics*, *2*(1), 81–95.

Malik, S., Qin, H., & Oteir, I. (2021). Perceived psychological, linguistic and socio-cultural obstacles: An investigation of English communication apprehension in EFL learners. *International Journal of Instruction*, *14*(4), 733–752. https://doi.org/10.29333/iji.2021.14442a

Malone, B. G., & Tietjens, C. L. (2000). Re-examination of classroom rules: The need for clarity and specified behavior. *Special Services in the Schools*, *16*(1–2), 159–160. https://doi.org/10.1300/J008v16n01_11

Marien, H., Custers, R., & Aarts, H. (2019). Studying human habits in societal context: Examining support for a basic stimulus–response mechanism. *Current Directions in Psychological Science*, *28*(6), 614–618. https://doi.org/10.1177/0963721419868211

Matsuda, S., & Gobel, P. (2004). Anxiety and predictors of performance in the foreign language classroom. *System*, *32*, 21–36. https://doi.org/10.1016/j.system.2003.08.002

Matsuoka, R. (2008). Communication apprehension among Japanese college students. *Pan-Pacific Association of Applied Linguistics*, *12*(2), 37.

Mazzone, L., Ducci, F., Scoto, M. C., Passaniti, E., D'Arrigo, V. G., & Vitiello, B. (2007). The role of anxiety symptoms in school performance in a community sample of children and adolescents. *BMC Public Health*, *7*. https://doi.org/10.1186/1471-2458-7-347

McCrae, R. R., & Costa Jr, P. T. (1999). A five-factor theory of personality. In *Handbook of personality: Theory and research* (2nd ed., pp. 139–153). New York: Guilford.

McCroskey, J. C. (1970). Measures of communication-bound anxiety. *Speech Monographs, 37*, 269–277.

McCroskey, J. C. (1976). The problems of communication apprehension in the classroom. *The Florida Speech Communication Journal*, *4*(2), 1–12.

McCroskey, J. C. (1977). Classroom consequences of communication apprehension. *Communication Education*, *26*(1), 27–33. https://doi.org/10.1080/03634527709378196

McCroskey, J. C. (1982). *An introduction to rhetorical communication* (4th ed). Englewood Cliffs, NJ: Prentice-Hall.

McCroskey, J. C. (1983). The communication apprehension perspective. *Communication*, *12*(1), 1–25.

McCroskey, J. C. (1997). Willingness to communicate, communication apprehension, and self-perceived communication competence: Conceptualizations and perspectives. In *Avoiding communication: Shyness, reticence, and communication apprehension* (pp. 75–108).

McCroskey, J. C. (2009). What have we learned in the last four decades. *Human Communication*, *12*(2), 157–171.

McCroskey, J. C. (2011). Oral communication apprehension: A reconceptualization. In M. Burgoon (Ed.), Communication Yearbook 6. New York: Routledge.

McCroskey, J. C., & Andersen, J. F. (1976). The relationship between communication apprehension and academic achievement among college students. *Human Communication Research*, *3*, 73–81.

McCroskey, J. C., Andersen, J. F., Richmond, V. P., & Wheeless, L. R. (1981). Communication apprehension of elementary and secondary students and teachers. *Communication Education*, *30*, 122–132.

McCroskey, J. C., Daly, J. A., & Sorensen, G. (1976). Personality correlates of communication apprehension. *Human Communication Research*, *2*(4), 376–380.

McCroskey, J. C., Fayer, J. M., & Richmond, V. P. (1985). Don't speak to me in English: Communication apprehension in Puerto Rico. *Communication Quarterly*, *33*(3), 185–192. https://doi.org/10.1080/01463378509369597

McCroskey, L. L., Teven, J. J., Minielli, M. C., & Richmond McCroskey, V. P. (2014). James C. McCroskey's instructional communication legacy: Collaborations, mentorships, teachers, and students. *Communication Education*, *63*(4), 283–307. https://doi.org/10.1080/03634523.2014.911929

McIlroy, D., Poole, K., Ursavas, Ö. F., & Moriarty, A. (2015). Distal and proximal associates of academic performance at secondary level: A mediation model of personality and self-efficacy. *Learning and Individual Differences*, *38*, 1–9. https://doi.org/10.1016/j.lindif.2015.01.004

Mehu, M., & Dunbar, R. I. M. (2008). Naturalistic observations of smiling and laughter in human group interactions. *Behaviour*, *145*(12), 1747–1780.

Meluch, A., Feehan, K., & Starcher, S. (2019). Instructor disclosures of communication apprehension and student perceptions of instructor credibility in the public speaking classroom. *International Journal of Teaching and Learning in Higher Education*, *31*(2), 299–309.

Mervielde, I., Buystt, V., & Fruyt, F. de. (1995). The validity of the big-five as a model for teachers' ratings of individual differences among children aged 4-12 years. *Personality and Individual Differences*, *18*(4), 525–534.

Mian, N. D., Godoy, L., Briggs-Gowan, M. J., & Carter, A. S. (2012). Patterns of anxiety symptoms in toddlers and preschool-age children: Evidence of early differentiation. *Journal of Anxiety Disorders*, *26*, 102–110. https://doi.org/10.1016/j.janxdis.2011.09.006

Micceri, T. (1989). The unicorn, the normal curve, and other improbable creatures. *Psychological Bulletin*, *105*(1), 156–166.

Ministry of Education Malaysia. (2013). *Malaysia Education Blueprint 2013-2025*. www.moe.gov.my

Mohtar, T. M. T., Singh, C. K. S., Abdullah, N. Y., & Mat, M. (2015). Developing the speaking skill among ESL elementary learners. *The Asian Journal of English Language & Pedagogy* , *3*, 161–180.

Molnar, D., & Crnjak, G. (2018). Exploring foreign language communication apprehension among the English language university students in the English language classroom setting. *European Journal of Social Science Education and Research*, *5*(2), 27–39. https://doi.org/10.26417/ejser.v5i2.p27-39

Motley, M. T., & Molloy, J. L. (1994). An efficacy test of a new therapy ("communication-orientation motivation") for public speaking anxiety. *Journal of Applied Communication Research*, *22*, 48–58. https://doi.org/10.1080/00909889409365386

Mulac, A., & Sherman, R. A. (1974). Behavioral assessment of speech anxiety. *Quarterly Journal of Speech*, *60*(2), 134–143. https://doi.org/10.1080/00335637409383219

Murphy, M., & Weber, K. (2019). Confirmation of the ability of the Personal Report of Communication Apprehension-24 (PRCA-24) to predict behavioral indicators of social interaction. *Communication Research Reports*, *36*(5), 393–403. https://doi.org/10.1080/08824096.2019.1683527

Mustapha, W. Z. W., Ismail, N., Singh, D. S. R., & Elias, S. (2010). ESL students communication apprehension and their choice of communicative activities. *ASEAN Journal of Teaching & Learning in Higher Education*, *2*(1), 22–29.

Na, Z. (2007). A study of high school students' English language learning anxiety. *The Asian EFL Journal*, *9*(3), 22–34.

Nadesan, N. K., & Shah, P. Md. (2020). Non-linguistic challenges faced by Malaysian students in enhancing speaking skills. *Creative Education*, *11*, 1988–2001. https://doi.org/10.4236/ce.2020.1110145

Nagaraj, S., Nai-Peng, T., Chiu-Wan, N., Kiong-Hock, L., & Pala, J. (2015). Counting ethnicity in Malaysia: The complexity of measuring diversity. In P. Siimon, V. Piche, & A. A. Gagnon (Eds.), *Social statistics and ethnic diversity: Cross-national perspectives in classifications and identity politics* (pp. 143–174).

Neuliep, J. W., Chadouir, M., & McCroskey, J. C. (2003). A cross-cultural test of the association between temperament and communication apprehension. *Communication Research Reports*, *20*(4), 320–330. https://doi.org/10.1080/08824090309388831

Nezlek, J. B., Kafetsios, K., & Smith, C. V. (2008). Emotions in everyday social encounters: Correspondence between culture and self-construal. *Journal of Cross-Cultural Psychology*, *39*(4), 366–372. https://doi.org/10.1177/0022022108318114

Nguyen, D. T., Wright, E. P., Dedding, C., Pham, T. T., & Bunders, J. (2019). Low self-esteem and its association with anxiety, depression, and suicidal ideation in Vietnamese secondary school students: A cross-sectional study. *Frontiers in Psychiatry*, *10*. https://doi.org/10.3389/fpsyt.2019.00698

Nijat, N., Atifnigar, H., Chandran, K., Letchumi, S., Selvan, T., & Subramonie, V. (2019). Psychological factors that affect English speaking performance among Malaysian primary school pupils. *American International Journal of Education and Linguistics Research*, *2*(2), 55–68.

Nilsson, M. (2019). Foreign language anxiety: The case of young learners of English in Swedish primary classrooms. *Apples - Journal of Applied Language Studies*, *13*(2), 1–21. https://doi.org/10.17011/apples/urn.201902191584

Noor, N. M., Aman, I., & Mustaffa, R. (2012). Teachers' questioning approaches in the Malaysian ESL classroom. *The International Journal of Learning* , *18*(7), 313–326. https://doi.org/10.18848/1447-9494/cgp/v18i07/47676

Norazman, N., Ismail, A. H., Ja'afar, N. H., Khoiry, M. A., & Ani, A. I. C. (2019). A review of seating arrangements towards the 21st century classroom approach in schools. *Malaysian Journal of Sustainable Environment*, 21–48.

Nordin, N. M., Ali, F. D. R., Zubir, S. I. S. S., & Sadjirin, R. (2013). ESL learners reactions towards code switching in classroom settings. *Procedia - Social and Behavioral Sciences*, *90*, 478–487. https://doi.org/10.1016/j.sbspro.2013.07.117

Novikova, I. (2013). Trait, trait theory. In K. D. Keith (Ed.), *The Encyclopedia of Cross-Cultural Psychology* (1st Edition). John Wiley & Sons, Inc.

Nyborg, G., Mjelve, L. H., Arnesen, A., Crozier, W. R., Bjørnebekk, G., & Coplan, R. J. (2022). Teachers' strategies for managing shy students' anxiety at school. *Nordic Psychology*. https://doi.org/10.1080/19012276.2022.2058072

Ohata, K. (2005). Potential sources of anxiety for Japanese learners of English: preliminary case interviews with five Japanese college students in the U.S. *Journal of Teaching English as a Second or Foreign Language*, *9*(3), 1–21.

Omar, S. F., Nawi, H. S. A., Shahdan, T. S. T., Mee, R. W. M., Pek, L. S., & Yob, F. S. C. (2020). Interactive language learning activities for learners' communicative ability. *International Journal of Evaluation and Research in Education*, *9*(4), 1010–1016.

Opt, S. K., & Loffredo, D. A. (2000). Rethinking communication apprehension: A Myers-Briggs perspective. *The Journal of Psychology*, *134*(5), 556–570.

Osborne, J. W., & Overbay, A. (2004). The power of outliers (and why researchers should always check for them). *Practical Assessment, Research and Evaluation*, *9*(6).

Osterman, K. F. (2010). Teacher practice and students' sense of belonging. In *International Research Handbook on Values Education and Student Wellbeing* (pp. 239–260). Springer Netherlands. https://doi.org/10.1007/978-90-481-8675-4_15

Oxford, R. L. (2011). Language learning strategies in a nutshell: Update and ESL suggestions. In J. Richards & W. Renandya (Eds.), *Methodology in Language Teaching: An Anthology of Current Practice* (pp. 124–132). Cambridge University Press. https://doi.org/10.1017/cbo9780511667190.018

Pappamihiel, N. E. (2002). English as a second language students and English language anxiety: Issues in the mainstream classroom. *Research in the Teaching of English*, *36*, 327–355.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (M. Q. Patton, Ed.; 3rd ed.) [Book]. Sage.

Paunonen, S. V. (2003). Big five factors of personality and replicated predictions of behavior. *Journal of Personality and Social Psychology*, *84*(2), 411–424. https://doi.org/10.1037/0022-3514.84.2.411

Peers, I. (2006). *Statistical analysis for education and psychology researchers*. Routledge.

Petitjean, C., & Gonzalez-Martinez, E. (2015). Laughing and smiling to manage trouble in French-language classroom interaction. *Classroom Discourse*, *6*(2), 89–106. https://doi.org/10.1080/19463014.2015.1010556

Pettit, S. K. (2011). Teachers' beliefs about English language learners in the mainstream classroom: A review of the literature. *International Multilingual Research Journal*, *5*(2), 123–147. https://doi.org/10.1080/19313152.2011.594357

Phinney, J. S., Horenczyk, G., Liebkind, K., & Vedder, P. (2001). Ethnic identity, immigration, and well-being: An interactional perspective. *Journal of Social Issues*, *57*(3), 493–510.

Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. In *Handbook of Research on Student Engagement* (pp. 365–386). Springer US. https://doi.org/10.1007/978-1-4614-2018-7_17

Pierson, H. D., & Bond, M. H. (1982). How do Chinese bilinguals respond to variations of interviewer language and ethnicity? *Language and Social Psychology*, *1*(2), 123–139.

Pillai, S., & Ong, L. T. (2018). English(es) in Malaysia. *Asian Englishes*, *20*(2), 147–157. https://doi.org/10.1080/13488678.2018.1459073

Pitton, D., Warring, D., Frank, K., & Hunter, S. (1993). *Multicultural messages: Nonverbal communication in the classroom*.

Pryor, B., Butler, J., & Boehringer, K. (2005). Communication apprehension and cultural context: A comparison of communication apprehension in Japanese and American students. *North American Journal of Psychology*, *7*(2), 247–252.

Pupil Labs. (2019, August 1). *Pupil labs homepage*. https://pupil-labs.com/

Quinto, E. J. M., & Macayan, J. V. (2019). Exploring English speaking anxiety among Filipino engineering students: Its influence on task performance and its sources. *GEMA Online Journal of Language Studies*, *19*(3), 57–74. https://doi.org/10.17576/gema-2019-1903-04

Rachmawaty, N., & Ariani, S. (2019). Investigating the types of teacher questions in the EFL secondary classroom. *Advances in Social Science, Education and Humanities Research*, *276*, 40–49.

Rafek, M. B., Ramli, N. H. L. B., Iksan, H. B., Harith, N. M., & Abas, A. I. B. C. (2014). Gender and Language: Communication Apprehension in Second Language Learning. *Procedia - Social and Behavioral Sciences*, *123*, 90–96.

Rajadurai, J. (2004). The faces and facets of English in Malaysia. *English Today*, *20*(4), 54–58. https://doi.org/10.1017/S0266078404004109

Rao, P. A., Beidel, D. C., Turner, S. M., Ammerman, R. T., Crosby, L. E., & Sallee, F. R. (2007). Social anxiety disorder in childhood and adolescence: Descriptive psychopathology. *Behaviour Research and Therapy*, *45*(6), 1181–1191. https://doi.org/10.1016/j.brat.2006.07.015

Rapee, R. M., Magson, N. R., Forbes, M. K., Richardson, C. E., Johnco, C. J., Oar, E. L., & Fardouly, J. (2022). Risk for social anxiety in early adolescence: Longitudinal impact of pubertal development, appearance comparisons, and peer connections. *Behaviour Research and Therapy*, *154*. https://doi.org/10.1016/j.brat.2022.104126

Rashotte, L. S. (2002). What does that smile mean? The meaning of nonverbal behaviors in social interaction. *Social Psychology Quarterly*, *65*(1), 92–102.

Raykov, M., & Martinelli, V. (2019). Evaluation of a Classroom Anxiety Scale for secondary-school students. *Forum Oświatowe*, *31*(2), 43–60. https://doi.org/10.34862/fo.2019.2.3

Razak, A. A., N Krishnasamy, H., & Othman, N. (2021). "No trolls left behind!": Using films to address communication apprehension in the English language classroom at Universiti Utara Malaysia. *Journal of Language and Linguistic Studies*, *17*(3), 1258–1265. https://doi.org/10.52462/jlls.89

Richmond, V. and McCroskey, J. C. (1998). *Communication apprehension, avoidance, and effectiveness* (5th ed.). Needham Heights, MA: Allyn and Bacon.

Richmond, V. P., McCroskey, J. C., & Hickson, M. L. (2012). *Nonverbal behavior in interpersonal relations* (7th ed.). Pearson Education.

Richmond, V. P., Wrench, J. S., & McCroskey, J. C. (2013). *Communication apprehension, avoidance, and effectiveness*. Upper Saddle River, NJ: Pearson Education, Inc

Rizzuto, K. C. (2017). Teachers' perceptions of ELL Students: Do their attitudes shape their instruction? *Teacher Educator*, *52*(3), 182–202. https://doi.org/10.1080/08878730.2017.1296912

Roberts, B. W., & Caspi, A. (2003). The cumulative continuity model of personality development: Striking a balance between continuity and change in personality traits across the life course. In *Understanding Human Development* (pp. 183–214). Springer US. https://doi.org/10.1007/978-1-4615-0357-6_9

Roberts, B. W., & Mroczek, D. (2008). Personality trait change in adulthood. *Current Directions in Psychological Science*, *17*(1), 31–35. https://doi.org/10.1111/j.1467-8721.2008.00543.x

Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality and Social Psychology Bulletin*, *28*(6), 789–801.

Rolland, J. (2002). The cross-cultural generalizability of the five-factor model of personality. In R. R. McCrae & J. Allik (Eds.), *The Five-Factor Model of Personality Across Cultures* (pp. 7–28).

Rowley, J. (2002). Using case studies in research. *Management Research News*, *25*(1), 16–27. https://doi.org/10.1108/01409170210782990

Rubie-Davies, C. M. (2010). Teacher expectations and perceptions of student attributes: Is there a relationship? *British Journal of Educational Psychology*, *80*, 121–135. https://doi.org/10.1348/000709909X466334

Russ, T. L. (2013). The relationship between Theory X/Y: Assumptions and communication apprehension. *Leadership and Organization Development Journal*, *34*(3), 238–249. https://doi.org/10.1108/01437731311326675

Sadighi, F., & Dastpak, M. (2017). The sources of foreign language speaking anxiety of Iranian English language learners. *International Journal of Education and Literacy Studies*, *5*(4), 111–115. https://doi.org/10.7575/aiac.ijels.v.5n.4p.111

Saeidi, M., Zaferanieh, E., & Shatery, H. (2012). On the effects of focus on form, focus on meaning, and focus on forms on learners' vocabulary learning in ESP context. *English Language Teaching*, *5*(10), 72–79. https://doi.org/10.5539/elt.v5n10p72

Samat, N. A. A., Muthu, S., & Yunus, M. Md. (2019). DUBSLINGUISTIC Enhancing English communication skills among Malaysian primary school pupils. *Creative Education*, *10*(01), 48–58. https://doi.org/10.4236/ce.2019.101004

Sandu, M. L., Rus, M., & Rus, C. V. (2020). Relationship between personality traits and individual response to conflict situations in adolescents. *Technium Social Sciences Journal*, *6*, 131–141.

Santagata, R. (2004). "Are you joking or are you sleeping?" Cultural beliefs and practices in Italian and U.S. teachers' mistake-handling strategies. *Linguistics and Education*, *15*, 141–164. https://doi.org/10.1016/j.linged.2004.12.002

Sawaluddin, S., & Tajuddin, A. J. A. (2017). Oral corrective feedback: Teacher's selection in actual practices. *International Journal of Academic Research in Business and Social Sciences*, *7*(5), 377–390. https://doi.org/10.6007/ijarbss/v7-i5/2976

Schappe, J. F. (2005). Early childhood assessment: A correlational study of the relationships among student performance, student feelings, and teacher perceptions. *Early Childhood Education Journal*, *33*(3), 187–193. https://doi.org/10.1007/s10643-005-0046-y

Schulz, R. A. (2001). Cultural differences in student and teacher perceptions concerning the role of grammar instruction and corrective feedback: USA-Colombia. *Modern Language Journal*, *85*(2), 244–258.

Sert, O. (2013). “Epistemic status check” as an interactional phenomenon in instructed learning settings. *Journal of Pragmatics*, *45*, 13–28. https://doi.org/10.1016/j.pragma.2012.10.005

Sert, O. (2019). Classroom interaction and language teacher education. In S. Walsh & S. Mann (Eds.), *The Routledge handbook of English Language Teacher Education* (pp. 216–238). Routledge.

Sert, O., & Jacknick, C. M. (2015). Student smiles and the negotiation of epistemics in L2 classrooms. *Journal of Pragmatics*, *77*, 97–112. https://doi.org/10.1016/j.pragma.2015.01.001

Sert, O., & Walsh, S. (2013). The interactional management of claims of insufficient knowledge in English language classrooms. *Language and Education*, *27*(6), 542–565. https://doi.org/10.1080/09500782.2012.739174

Shahar, B., Carlin, E. R., Engle, D. E., Hegde, J., Szepsenwol, O., & Arkowitz, H. (2012). A pilot investigation of emotion-focused two-chair dialogue intervention for self-criticism. *Clinical Psychology and Psychotherapy*, *19*(6), 496–507. https://doi.org/10.1002/cpp.762

Shaughnessy, M. F., Cordova, F., Strickland, J., Smith, C., & Eisenman, R. (1995). Working with the emotionally sensitive adolescent. *International Journal of Adolescence and Youth*, *6*(1), 47–55. https://doi.org/10.1080/02673843.1995.9747778

Shaughnessy, M. F., & Lehtonen, K. (1998). *The emotionally sensitive adolescent*.

Shi, X., Brinthaupt, T. M., & McCree, M. (2015). The relationship of self-talk frequency to communication apprehension and public speaking anxiety. *Personality and Individual Differences*, *75*, 125–129. https://doi.org/10.1016/j.paid.2014.11.023

Shiner, R., & Caspi, A. (2003). Personality differences in childhood and adolescence: Measurement, development, and consequences. *Journal of Child Psychology and Psychiatry*, *44*(1), 2–32.

Siegel, R. S., & Dickstein, D. (2012). Anxiety in adolescents: Update on its diagnosis and treatment for primary care providers. *Adolescent Health, Medicine and Therapeutics*, *2012*(3), 1–16. https://doi.org/10.2147/ahmt.s7597

Sloan, J., & Slane, S. (1990). Personality correlates of anxiety about public speaking. *Psychological Reports*, *67*(2), 515–522.

Smit, N. (2021). *Get it together: Exploring the dynamics of teacher-student interaction in English as a foreign language lessons*.

Smit, N., van Dijk, M., de Bot, K., & Lowie, W. (2021). The complex dynamics of adaptive teaching: Observing teacher-student interaction in the language classroom. *International Review of Applied Linguistics in Language Teaching*, 1–18. https://doi.org/10.1515/iral-2021-0023

Smith, H., & Higgins, S. (2006). Opening classroom interaction: The importance of feedback. *Cambridge Journal of Education*, *36*(4), 485–502. https://doi.org/10.1080/03057640601048357

Son, J. (2018). Back translation as a documentation tool. *International Journal for Translation and Interpreting*, *10*(2), 89–100. https://doi.org/10.12807/ti.110202.2018.a07

Stake, R. E. (2005). *The art of case study research*. SAGE.

Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, *63*(3), 224–237.

Stewart, M., Skinner, B., Hou, H., & Kelly, R. (2022). A systematic literature review of home-school partnership for learners with English as an Additional Language (EAL): A

way forward for the UK and Ireland. *Irish Educational Studies*. https://doi.org/10.1080/03323315.2022.2074072

Strack, J., & Esteves, F. (2015). Exams? Why worry? Interpreting anxiety as facilitative and stress appraisals. *Anxiety, Stress and Coping*, *28*(2), 205–214. https://doi.org/10.1080/10615806.2014.931942

Su, J. C., Lee, R. M., & Oishi, S. (2013). The role of culture and self-construal in the link between expressive suppression and depressive symptoms. *Journal of Cross-Cultural Psychology*, *44*(2), 316–331. https://doi.org/10.1177/0022022112443413

Suh, E. M. (2000). Self, the hyphen between culture and subjective well-being. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being* (pp. 63–86). MIT Press.

Suleimenova, Z. (2013). Speaking anxiety in a foreign language classroom in Kazakhstan. *Procedia - Social and Behavioral Sciences*, *93*, 1860–1868. https://doi.org/10.1016/j.sbspro.2013.10.131

Sundari, H. (2017). Classroom interaction in teaching English as foreign language at lower secondary schools in Indonesia. *Advances in Language and Literary Studies*, *8*(6), 147–154. https://doi.org/10.7575/aiac.alls.v.8n.6p.147

Sungkur, R. K., Antoaroo, M. A., & Beeharry, A. (2016). Eye tracking system for enhanced learning experiences. *Education and Information Technologies*, *21*(6), 1785–1806. https://doi.org/10.1007/s10639-015-9418-0

Suparlan. (2021). Factors contributing students' speaking anxiety. *JOLLT Journal of Languages and Language Teaching*, *9*(2), 160–169. https://doi.org/10.33394/jollt.v%vi%i.3321

Tajeddin, Z., & Kamali, J. (2020). Typology of scaffolding in teacher discourse: Large data-based evidence from second language classrooms. *International Journal of Applied Linguistics* , *30*, 329–343. https://doi.org/10.1111/ijal.12286

Tashakkori, A., & Teddlie, C. (2010). *SAGE handbook of mixed methods in social & behavioral research*. (A. Tashakkori & C. Teddlie, Eds.) (2nd ed.). Los Angeles: Sage.

Teh, P.-L., Yong, C.-C., Chong, C.-W., & Yew, S.-Y. (2011). Do the Big Five Personality factors affect knowledge sharing behaviour? A study of Malaysian universities. *Malaysian Journal of Library & Information Science*, *16*(1), 47–62.

Thepsoonthorn, C., Yokozuka, T., Miura, S., Ogawa, K., & Miyake, Y. (2016). Prior knowledge facilitates mutual gaze convergence and head nodding synchrony in face-to-face communication. *Scientific Reports*, *6*, 1–15. https://doi.org/10.1038/srep38261

Thuruvan, P., & Yunus, M. Md. (2017). The speech act of request in the ESL classroom. *The Southeast Asian Journal of English Language Studies*, *23*(4), 212–221. https://doi.org/10.17576/3L-2017-2304-16

Tian, C. (2019). Anxiety in classroom English presentations: A case study in Korean tertiary educational context. *Higher Education Studies*, *9*(1), 132–143. https://doi.org/10.5539/hes.v9n1p132

Tillery, A., Varjas, K., Meyers, J., & Collins, A. S. (2010). General education teachers' perceptions of behavior management and intervention strategies. *Journal of Positive Behavior Interventions*, *12*(2), 86–102. https://doi.org/10.1177/1098300708330879

Timpano, K. R., Carbonella, J. Y., Keough, M. E., Abramowitz, J., & Schmidt, N. B. (2015). Anxiety sensitivity: An examination of the relationship with authoritarian, authoritative, and permissive parental styles. *Journal of Cognitive Psychotherapy*, *29*(2), 95–105. https://doi.org/10.1891/0889-8391.29.2.95

Tiono, N. I., & Sylvia, A. (2004). The types of communication strategies used by speaking class students with different communication apprehension levels in English department of Petra Christian University, Surabaya. *K@TA*, *6*(1), 30–46. http://puslit.petra.ac.id/journals/letters/30

Tom, A. A., Johari, A., Rozaimi, A., & Huzaimah, S. (2013). Factors contributing to communication apprehension among pre-university students. *Academic Journal of Interdisciplinary Studies*, *2*(8), 665–669.

Townsend, J. S. (1998). Silent voices: What happens to quiet students during classroom discussions? *The English Journal*, *87*(2), 72–80.

Townsend, J. S., & Fu, D. (1998). Quiet students across cultures and contexts. *English Education*, *31*(1), 4–19.

Tran, T. T. T., Baldauf, R. B., & Moni, K. (2013). Foreign language anxiety: Understanding its status and insiders' awareness and attitudes. *TESOL Quarterly*, *47*(2), 216–243. https://doi.org/10.1002/tesq.85

Tran, T. T. T., & Moni, K. (2015). Management of foreign language anxiety: Insiders' awareness and experiences. *Cogent Education*, *2*(1). https://doi.org/10.1080/2331186X.2014.992593

Tran, T. T. T., Moni, K., & Baldauf, R. B. (2013). Foreign language anxiety: Understanding its sources and effects from insiders' perspectives. *Journal of Asia TEFL*, *10*(1), 95–131. https://www.researchgate.net/publication/287314675

Treadwell, D., & Davis, A. (2019). Qualitative understanding of communication behavior. In *Introducing Communication Research: Paths of Inquiry* (pp. 258–279).

Tsai, C.-C., & Chang, I.-C. (2013). The study on motivation and anxiety of English learning of students at a Taiwan technical university. *International Journal of English Language Teaching*, *1*(1), 24–41.

Tsou, W. (2005). Improving speaking skills through instruction in oral classroom participation. *Foreign Language Annals*, *38*(1), 46–55.

Unlu, Z., & Wharton, S. M. (2015). Exploring classroom feedback interactions around EAP writing: A data based model. *Journal of English for Academic Purposes*, *17*, 24–36.

Valiente, C., Lemery-Chalfant, K., Swanson, J., & Reiser, M. (2008). Prediction of children's academic competence from their effortful control, relationships, and classroom participation. *Journal of Educational Psychology*, *100*(1), 67–77. https://doi.org/10.1037/0022-0663.100.1.67

Vierhaus, M., & Lohaus, A. (2009). Children's perception of relations between anger or anxiety and coping: Continuity and discontinuity of relational structures. *Social Development*, *18*(3), 747–763. https://doi.org/10.1111/j.1467-9507.2008.00504.x

Wagner, P., Malisz, Z., & Kopp, S. (2014). Gesture and speech in interaction: An overview. *Speech Communication*, *57*, 209–232. https://doi.org/10.1016/j.specom.2013.09.008

Wall, K., Kalpakci, A., Hall, K., Crist, N., & Sharp, C. (2018). An evaluation of the construct of emotional sensitivity from the perspective of emotionally sensitive people. *Borderline Personality Disorder and Emotion Dysregulation*, *5*(14). https://doi.org/10.1186/s40479-018-0091-y

Wang, S., Rubie-Davies, C. M., & Meissel, K. (2019). Instructional practices and classroom interactions of high and low expectation teachers in China. *Social Psychology of Education*, *22*(4), 841–866. https://doi.org/10.1007/s11218-019-09507-4

Warner, R. M. (2012). *Applied statistics: From bivariate through multivariate techniques* (2nd ed.). SAGE Publication.

Washington, T. D. (2009). Psychological stress and anxiety in middle to late childhood and early adolescence: Manifestations and management. In *Journal of Pediatric Nursing* (Vol. 24, Issue 4, pp. 302–313). https://doi.org/10.1016/j.pedn.2008.04.011

Wathumalai, G., & Shah, P. M. (2022). Second language learning anxiety in Malaysian classroom. *International Journal of Advanced Research in Education and Society*, *4*(1), 90–106. https://doi.org/10.55057/ijares.2022.4.1.10

Watson, A. K., & Monroe, E. E. (1990). Academic achievement: A study of relationships of IQ, communication apprehension, and teacher perception,. *Communication Reports*, *3*(1), 28–36. https://doi.org/10.1080/08934219009367498

Watson, A. K., Monroe, E. E., & Atterstrom, H. (1989). Comparison of communication apprehension across cultures: American and Swedish children. *Communication Quarterly*, *37*(1), 67–76. https://doi.org/10.1080/01463378909385526

Watson, A. K., Monroe, E. E., Fayer, J. M., & Aloise, M. E. (1988). Communication apprehension in Puerto Rican and U.S. mainland children. *Communication Research Reports*, *5*(2), 161–168. https://doi.org/10.1080/08824098809359818

Weaver, J. B., Sargent, S. L., & Kiewitz, C. (1997). Communication apprehension and the Type-A personality. *International Journal of Phytoremediation*, *14*(3), 350–355. https://doi.org/10.1080/08824099709388678

Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives*, *10*(12).

Wheeless, L. R., Nesser, K., & Mccroskey, J. C. (1986). The relationships of self-disclosure and disclosiveness to high and low communication apprehension. *Communication Research Reports*, *3*, 129–134.

White, J., & Lightbown, P. M. (1984). Asking and answering in ESL classes. *The Canadian Modern Language Review*, *40*(2), 228–243. https://doi.org/10.3138/cmlr.40.2.228

Wirthwein, L., Bergold, S., Preckel, F., & Steinmayr. Ricarda. (2019). Personality and school functioning of intellectually gifted and nongifted adolescents: Self-perceptions and parents' assessments. *Learning and Individual Differences*, *73*, 16–29.

Woodrow, L. (2006). Anxiety and speaking English as a second language. *RELC Journal*, *37*(3), 308–328. https://doi.org/10.1177/0033688206071315

Worthy, L. D., Lavigne, T., & Romero, F. (2020). *Culture and psychology: How people shape and are shaped by culture*. MMOER.

Wortman, J., Lucas, R. E., & Donnellan, M. B. (2012). Stability and change in the big five personality domains: Evidence from a longitudinal study of Australians. *Psychology and Aging*, *27*(4), 867–874. https://doi.org/10.1037/a0029322.supp

Wrench, J. S., McCroskey, J. C., Brogan, S. M., & Jowi, D. (2007). Social communication apprehension: The intersection of communication apprehension and social phobia. *A Journal of the Pacific and Asian Communication Association*, *11*(4), 401–422.

Wright, B. M. (2016). Display and referential questions: Effects on student responses. *Nordic Journal of English Studies*, *15*(4), 160–189.

Wu, H. (2019). Reticence in the EFL Classroom: Voices from students in a Chinese university. *International Journal of Applied Linguistics and English Literature*, *8*(6), 114–125.

Yahaya, R. S., Madzlan, N. A., & Muhammad, M. (2021). ESL learners' obstacles in learning speaking skills. *The English Teacher*, *50*(3), 173–181. https://doi.org/10.52696/WYZY7207

Yan, E. M., Evans, I. M., & Harvey, S. T. (2011). Observing emotional interactions between teachers and students in elementary school classrooms. *Journal of Research in Childhood Education*, *25*(1), 82–97. https://doi.org/10.1080/02568543.2011.533115

Yim, S. Y. (2014). An anxiety model for EFL young learners: A path analysis. *System*, *42*, 344–354. https://doi.org/10.1016/j.system.2013.12.022

Yin, R. K. (2003). *Applications of case study research* (2nd ed., Vol. 34). SAGE Publication.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publication.

Yinger, J. M. (1986). Intersecting strands in the theorisation of race and ethnic relations. In *Theories of Race and Ethnic Relations* (pp. 20–41). Cambridge University Press. https://doi.org/10.1017/cbo9780511557828.003

Young, D. J. (1990). An Investigation of Students' Perspectives on Anxiety and Speaking. *Foreign Language Annals*, *23*(6), 539–567.

Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest? *The Modern Language Journal*, *75*(4), 426–439. https://doi.org/10.2307/329492

Young, D. J. (1994). New directions in language anxiety research. In *Faces in a crowd : The individual learner in multisection courses* (pp. 3–46). Heinle & Heinle.

Yu, A., & Gregg, C. H. (1993). Asians in groups: More than a matter of cultural awareness. *Journal for Specialists in Group Work*, *18*(2), 86–93. https://doi.org/10.1080/01933929308413741

Zeigler-Hill, V. (2013). The importance of self-esteem. In *Self-esteem* (Zeigler-Hill, Virgil). Psychology Press.

Zhang, X., Jiang, X., Yuan, X., & Zheng, W. (2021). Attentional focus modulates automatic finger-tapping movements. *Scientific Reports*, *11*(698). https://doi.org/10.1038/s41598-020-80296-z

Zhang, W., & Liu, M. (2013). Evaluating the impact of oral test anxiety and speaking strategy use on oral English performance. *The Journal of Asia TEFL*, *10*(2), 115–148.

Zheng, Y. (2008). Anxiety and second/foreign language learning revisited. *Canadian Journal for New Scholars in Education*, *1*(1), 1–12.

Zhiping, D., & Paramasivam, S. (2013). Anxiety of speaking English in class among international students in a Malaysian university. *International Journal of Education and Research*, *1*(11), 1–16.

Zhong, Q. (2013). Understanding Chinese learners' willingness to communicate in a New Zealand ESL classroom: A multiple case study drawing on the theory of planned behavior. *System*, *41*, 740–751. https://doi.org/10.1016/j.system.2013.08.001

Zohoorian, Z., Zeraatpishe, M., & Khorrami, N. (2022). Willingness to communicate, big five personality traits, and empathy: How are they related? *Canadian Journal of Educational and Social Studies*, *2*(5), 17–27. https://doi.org/10.53103/cjess.v2i5.69

APPENDIX A – Information Sheets and Consent Forms

SCHOOL PRINCIPAL'S INFORMATION SHEET

The University of Nottingham
UNITED KINGDOM • CHINA • MALAYSIA

Information Sheet for School Principals

Faculty of Arts and Social Sciences
School of Education

Project Title: A study on behavioural and psychological indicators for the influence of teacher personality on communication apprehension among ESL learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

This is an invitation to take part in a research study that seeks to investigate the influences of personality types on language learners' communication apprehension. This information is designed to tell you what it will involve.

Participation is voluntary, and you may change your mind about the involvement of the students of *(School's name)*. You are free to withdraw your students from taking part in this study at any point before or during the study. For anonymous questionnaires, once your students have finished the questionnaire and submitted their answers, it is not possible to withdraw the data.

If you have any questions or comments, please contact the researcher via the email stated above.

Thank you for your cooperation. Your time and students' time are highly valuable and appreciated.

What is the project about?
This study aims to investigate the influences of personality types on the communication apprehension of Malaysian primary school students. This study focuses on teacher-student interaction.

Who is being asked to take part, and why?
For the purpose of this study, participants will consist of primary school learners (Primary 5 and 6) enrolled in any public schools in Malaysia as well as English language teachers of public schools in Malaysia.

What will my students be asked to do?

The students of (*School's name*) are required to complete a questionnaire consisting of 33 questions which should not take more than 25 minutes of their time. Prior to answering the questionnaire, you will have to carefully read and sign the consent form for the students to participate in this study. By doing so, you are giving consent for the students of (*School's name*) to be part of the research project. Apart from that, the students of (*School's name*) also have the opportunity to participate in an observed student-teacher interaction based on an assigned communicative task and use a mobile eye tracker. If you wish to allow the students of (*School's name*) to participate, you can indicate in the space provided in the consent form.

Will the research be of any personal benefit to me or my students?

It is hoped that the outcome of this research will produce significant knowledge on the influence of personality types on learners' communication apprehension. This study hopes to draw upon teaching and learning guidelines based on the finding of this study.

What will happen to the information provided by my students?

Please be assured will not be possible to identify who your students are. No individuals or individual institutions will be named in the writing up of the research project, and any resulting reports. Completed research questionnaires will be stored securely in a safe and confidential location that only permits the access of the researchers of this study. Data will be stored in a way that makes it non-traceable to individuals (using codes for individuals). Only the researcher has the right of access to the data provided by your students. For the observations and interviews, all personal details/references will be avoided or removed when the recordings are transcribed to ensure anonymity. All recordings after the interview will be transcribed by the researcher and uploaded into a password protected database. However, the researcher may use relevant quotes in the final report or a publication. The researcher will make sure that your anonymity is protected. But if you do not wish for your students' quotes to be used, please inform the researcher.

What will you do with the data?

The data collected from this questionnaire will be used for the researcher's thesis.

If you have any questions or concerns, please don't hesitate to ask. We can be contacted before and after the participation of the students of (*School's name*) in this study at the above email address.

THANK YOU FOR YOUR COOPERATION

If you have any queries or complaints about this study, please contact the student's supervisor in the first instance. If this does not resolve the query to your satisfaction, please write to the Administrator to FASS Research Ethics Committee (Norhidayah.MohdNoor@nottingham.edu.my, 03-8924 8742) who will pass your query to the Chair of the Committee.

SCHOOL PRINCIPAL'S CONSENT FORM

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Consent Form (School Principals)

Faculty of Arts and Social Sciences
School of Education

Project Title: A Study on Behavioural and Psychological Indicators for the Influence of Teacher Personality on Communication Apprehension Among ESL Learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

•	Have you read and understood the Participant Information?	YES/NO
•	I agree to allow the students of *(School's name)* to answer a questionnaire.	YES/NO
•	I agree to allow the students of *(School's name)* to take part in an interview that will be recorded and a communicative task that will be observed and video recorded	YES/NO
•	I agree to allow the students of *(School's name)* to use a mobile eye tracker to track the eye movements during observed communicative tasks	YES/NO
•	Do you understand that the students of *(School's name)* are free to withdraw from the study without giving a reason?	YES/NO
•	Do you understand that once the students of *(School's name)* have been interviewed it may not be technically possible to withdraw the data unless requested within *a week*?	YES/NO
•	Do you give permission for the students of *(School's name)* data from this study to be shared with other researchers in the future provided that your anonymity is protected?	YES/NO
•	Do you understand that non-identifiable data from this study might be used in academic research reports or publications?	YES/NO

Name of school: _____

Signature of the Principal:_____

Name (in block capitals):_____

Date :_____

TEACHER'S INFORMATION SHEET

The University of Nottingham
UNITED KINGDOM • CHINA • MALAYSIA

Information Sheet for Participants (Teachers)

Faculty of Arts and Social Sciences
School of Education

Project Title: A study on behavioural and psychological indicators for the influence of teacher personality on communication apprehension among ESL learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors:
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

This is an invitation to take part in a research study that seeks to investigate the influences of personality types on language learners' communication apprehension. This information is designed to tell you what it will involve.

Your participation is voluntary, and you may change your mind about being involved, or decline to answer a particular question or (for interview studies) stop the recording at any time, and without giving a reason. You are free to withdraw at any point before or during the study. For anonymous questionnaires, once you have finished the questionnaire and submitted your answers it is not possible to withdraw the data.
If you have any questions or comments, please contact the researcher via the email stated above.
Thank you for your participation and your time which is highly valuable and appreciated.

What is the project about?
This study aims to investigate the influences of personality types on the communication apprehension of Malaysian primary school students. This study focuses on teacher-student interaction.

Who is being asked to take part, and why?
For the purpose of this study, participants will consist of primary school learners (Primary 6) enrolled in any public schools in Malaysia as well as English language teachers of public schools in Malaysia.

What will I be asked to do?
You are required to complete a questionnaire consisting of 29 questions which should not take more than 15 minutes of your time. Prior to answering the questionnaire, you will have to carefully read and sign the consent form to participate in this study. By doing so, you are giving consent to be part of the research project. Apart from that, you also have the opportunity to participate in an observed student-teacher interaction based on an assigned communicative task. If you wish to participate, you can indicate in the space provided in the consent form.

Will the research be of any personal benefit to me?
It is hoped that the outcome of this research will produce significant knowledge on the influence of personality types on learners' communication apprehension. This study hopes to draw upon teaching and learning guidelines based on the finding of this study.

What will happen to the information I provide?
Please be assured will not be possible to identify who you are. No individuals or individual institutions will be named in the writing up of the research project, and any resulting reports. Completed research questionnaires will be stored securely in a safe and confidential location that only permits the access of the researchers of this study. Data will be stored in a way that makes it non-traceable to individuals (using codes for individuals). Only the researcher has the right of access to the data provided by you. For the observations and interviews, all personal details/references will be avoided or removed when the recordings are transcribed to ensure anonymity. All recordings after the interview will be transcribed by the researcher and uploaded into a password protected database. However, the researcher may use relevant quotes in the final report or a publication. The researcher will make sure that your anonymity is protected. But if you do not wish for your quotes to be used, please inform the researcher.

What will you do with the data?
The data collected from this questionnaire will be used for the researcher's thesis.
If you have any questions or concerns, please don't hesitate to ask. We can be contacted before and after your participation at the above address.

THANK YOU FOR YOUR PARTICIPATION

If you have any queries or complaints about this study, please contact the student's supervisor in the first instance. If this does not resolve the query to your satisfaction, please write to the Administrator to FASS Research Ethics Committee (Norhidayah.MohdNoor@nottingham.edu.my, 03-8924 8742) who will pass your query to the Chair of the Committee

FASS2018-0014/SoEd/PR18017509

TEACHER'S CONSENT FORM

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Participant Consent Form (Teachers)

Faculty of Arts and Social Sciences
School of Education

Project Title: A Study on Behavioural and Psychological Indicators for the Influence of Teacher Personality on Communication Apprehension Among ESL Learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

•	Have you read and understood the Participant Information?	YES/NO
•	I agree to answer a questionnaire.	YES/NO
•	I agree to take part in an interview that will be recorded and a communicative task that will be observed and video recorded	YES/NO
•	Do you agree to use a mobile eye tracker to track the eye movements during observed communicative tasks	YES/NO
•	Do you know how to contact the researcher if you have questions about this study?	YES/NO
•	Do you understand that you are free to withdraw from the study without giving a reason?	YES/NO
•	Do you understand that once you have been interviewed it may not be technically possible to withdraw your data unless requested within *a week*?	YES/NO
•	Do you give permission for your data from this study to be shared with other researchers in the future provided that your anonymity is protected?	YES/NO
•	Do you understand that non-identifiable data from this study might be used in academic research reports or publications?	YES/NO

Signature of the Participant : ..... Date: .....

Name (in block capitals) : .....

FASS2018-0014/SoEd/PR18017509

PARENT'S INFORMATION SHEET

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Information Sheet for ESL Learners' Parents

Faculty of Arts and Social Sciences
School of Education

Project Title: A study on behavioural and psychological indicators for the influence of teacher personality on communication apprehension among ESL learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

This is an invitation to take part in a research study that seeks to investigate the influences of personality types on language learners' communication apprehension. This information is designed to tell you what it will involve.
Ini adalah jemputan untuk mengambil bahagian dalam kajian penyelidikan mengenai pengauruh jenis keperibadian terhadap kebimbangan komunikasi pelajar. Maklumat ini direka untuk memberitahu anda apa yang terlibat.

Participation is voluntary, and you may change your mind about the involvement of your child. You are free to withdraw your child from taking part in this study at any point before or during the study. For anonymous questionnaires, once your child has finished the questionnaire and submitted their answers, it is not possible to withdraw the data.
Penyertaan adalah sukarela, dan anda boleh mengubah fikiran anda tentang penyertaan anak anda. Anda bebas untuk menarik penyertaan anak anda daripada mengambil bahagian dalam kajian ini pada bila-bila masa sebelum atau semasa kajian. Untuk kajian soal selidik tanpa nama, ia adalah mustahil sekiranya anda ingin menarik balik data-data dan informasi yang telah diberikan oleh anak anda setelah anak anda telah mengemukakan jawapan soal selidik anda kepada pengkaji.

If you have any questions or comments please contact the researcher via the email stated above.
Sekiranya anda mempunyai sebarang pertanyaan atau komen sila hubungi penyelidik melalui e-mel yang dinyatakan di atas.

Thank you for your cooperation. Your time and child's time are highly valuable and appreciated.
Terima kasih atas kerjasama anda. Masa anda dan anak anda sangat berharga dan dihargai

What is the project about?
This study aims to investigate the influences of personality types on the communication apprehension of Malaysian primary school students. This study focuses on teacher-student interaction.
Apakah projek berkenaan?
Kajian ini melihat pengaruh jenis keperibadian mengenai kebimbangan komunikasi pelajar sekolah rendah di Malaysia. Kajian ini memberi tumpuan kepada interaksi antara guru-pelajar

Who is being asked to take part, and why?
For the purpose of this study, participants will consist of primary school learners (Primary 6) enrolled in any public schools in Malaysia as well as English language teachers of public schools in Malaysia.
Siapa yang diminta untuk mengambil bahagian, dan mengapa?
Untuk tujuan kajian ini, peserta adalah terdiri daripada pelajar sekolah rendah (Darjah 6) di mana-mana sekolah awam di Malaysia dan guru Bahasa Inggeris sekolah-sekolah awam di Malaysia.

What will my child be asked to do?
Your child is required to complete a questionnaire consisting of 33 questions which should not take more than 15 minutes of their time. Prior to answering the questionnaire, you will have to carefully read and sign the consent form for your child to participate in this study. By doing so, you are giving consent for your child to be part of the research project. Apart from that, your child also has the opportunity to participate in an observed student-teacher interaction based on an assigned communicative task and use a mobile eye tracker. If you wish to allow your child to participate, you can indicate in the space provided in the consent form.
Apa yang akan saya diminta lakukan?
Anak anda dikehendaki menjawab soal selidik yang mengandungi 33 soalan yang tidak akan mengambil masa lebih daripada 15 minit daripada masa anak anda. Sebelum menjawab soal selidik, bacalah dengan teliti dan tandatangan borang persetujuan untuk memberi kebenaran untuk anak anda mengambil bahagian dalam kajian ini. Dengan membuat demikian, anda bersetuju untuk anak anda menjadi sebahagian daripada projek penyelidikan. Anak anda juga akan diperhatikan semasa interaksi dengan guru. Jika anda ingin mengizinkan anak anda untuk mengambil bahagian, anda boleh nyatakan di ruang yang disediakan dalam borang persetujuan.

Will the research be of any personal benefit to me or my child?
It is hoped that the outcome of this research will produce significant knowledge on the influence of personality types on learners' communication apprehension. This study hopes to draw upon teaching and learning guidelines based on the finding of this study.
Adakah kajian ini akan memberi manfaat peribadi kepada saya atau anak saya?
Hasil daripada kajian ini diharapkan dapat menghasilkan pengetahuan yang signifikan mengenai pengaruh jenis keperibadian mengenai kebimbangan komunikasi pelajar. Kajian ini bertujuan untuk merangka garis panduan pengajaran dan pembelajaran berdasarkan dapatan kajian ini.

What will happen to the information provided by my child?
Please be assured that the identify who your child will not be revealed. No individuals or individual institutions will be named in the writing up of the research project, and any resulting reports. Completed research questionnaires will be stored securely in a safe and confidential location that only permits the access of the researchers of this study. Data will be stored in a way that makes it non-traceable to individuals (using codes for individuals). Only the researcher has the right of access to the data provided by your child. For the

observations and interviews, all personal details/references will be avoided or removed when the recordings are transcribed to ensure anonymity. All recordings after the interview will be transcribed by the researcher and uploaded into a password protected database. However, the researcher may use relevant quotes in the final report or a publication. The researcher will make sure that your anonymity is protected. But if you do not wish for your child's quotes to be used, please inform the researcher.

Apa yang akan berlaku terhadap maklumat yang diberikan oleh anak saya?
Harap yakin bahawa identiti anak anda tidak akan didedahkan. Tidak akan ada individu atau institusi individu yang akan dinamakan di dalam penulisan projek penyelidikan, dan di dalam sebarang laporan yang dihasilkan. Soal selidik penyelidikan yang lengkap akan disimpan dengan selamat di lokasi yang selamat dan sulit yang hanya membenarkan akses penyelidik kajian ini. Data akan disimpan dengan cara yang tidak dapat dikesan oleh individu (menggunakan kod untuk individu). Hanya penyelidik yang mempunyai hak akses kepada data yang disediakan oleh anak anda. Untuk pemerhatian dan wawancara, semua butiran / rujukan peribadi akan dielakkan atau dialih keluar apabila rakaman disalin untuk memastikan tidak dikenali. Semua rakaman selepas wawancara akan ditranskripsikan oleh penyelidik dan dimuat naik ke pangkalan data dilindungi kata laluan. Walau bagaimanapun, penyelidik boleh menggunakan petikan yang relevan dalam laporan akhir atau penerbitan. Penyelidik akan memastikan bahawa namanya dilindungi. Tetapi jika anda tidak mahu petikan anak anda digunakan, sila maklumkan kepada penyelidik..

What will you do with the data?
The data collected from this questionnaire will be used for the researcher's thesis.
Apa yang akan anda lakukan dengan data?
Data yang dikumpul dari soal selidik ini akan digunakan untuk tesis penyelidik.

If you have any questions or concerns, please don't hesitate to ask. We can be contacted before and after the participation of your child in this study at the above email address.
Sekiranya anda mempunyai sebarang soalan atau kebimbangan, jangan ragu untuk bertanya. Kami boleh dihubungi sebelum dan selepas penyertaan anak anda dalam kajian ini di alamat e-mel di atas.

THANK YOU FOR YOUR COOPERATION
TERIMA KASIH ATAS KERJASAMA ANDA

If you have any queries or complaints about this study, please contact the student's supervisor in the first instance. If this does not resolve the query to your satisfaction, please write to the Administrator to FASS Research Ethics Committee (Norhidayah.MohdNoor@nottingham.edu.my, 03-8924 8742) who will pass your query to the Chair of the Committee
Sekiranya anda mempunyai sebarang pertanyaan atau aduan mengenai kajian ini, sila hubungi penyelia pelajar terlebih dahulu. Sekiranya ini tidak menyelesaikan pertanyaan untuk kepuasan anda, sila tulis kepada Pentadbir untuk Jawatankuasa Etika Penyelidikan FASS (Norhidayah.MohdNoor@nottingham.edu.my, 03-8924 8742) yang akan menghantar pertanyaan anda kepada Pengerusi Jawatankuasa.

FASS2018-0014/SoEd/PR18017509

PARENT'S CONSENT FORM

The University of Nottingham
UNITED KINGDOM • CHINA • MALAYSIA

Consent Form (ESL Learners' Parents)
Faculty of Arts and Social Sciences
School of Education

Project Title: A Study on Behavioural and Psychological Indicators for the Influence of Teacher Personality on Communication Apprehension Among ESL Learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

•	Have you read and understood the Participant Information? *Sudahkah anda membaca dan memahami Maklumat Penyelidikan?*	YES/NO *YA TIDAK*
•	I agree to allow my child to answer a questionnaire. *Saya bersetuju untuk membenarkan anak saya menjawab soal selidik.*	YES/NO *YA TIDAK*
•	I agree to allow my child to take part in an interview that will be recorded and a communicative task that will be observed and video recorded *Saya bersetuju untuk membenarkan anak saya mengambil bahagian dalam temuduga yang akan direkodkan dan aktiviti komunikasi yang akan diperhatikan dan dirakam.*	YES/NO *YA TIDAK*
•	I agree to allow my child to use a mobile eye tracker to track the eye movements during observed communicative tasks. *Saya bersetuju membenarkan anak saya menggunakan Eye Tracker mudah alih untuk mengesan pergerakan mata semasa aktiviti komunikasi yang diperhatikan.*	YES/NO *YA TIDAK*
•	Do you know how to contact the researcher if you have questions about this study? *Adakah anda tahu bagaimana untuk menghubungi penyelidik jika anda mempunyai soalan mengenai kajian ini?*	YES/NO *YA TIDAK*
•	Do you understand that your child is free to withdraw from the study without giving a reason? *Adakah anda faham bahawa anak anda bebas untuk menarik diri dari kajian tanpa memberikan sebab?*	YES/NO *YA TIDAK*
•	Do you understand that once your child has been interviewed it may not be technically possible to withdraw the data unless requested within *a week*? *Adakah anda faham bahawa sebaik sahaja anak anda telah ditemuramah data tidak boleh ditarik balik melainkan diminta dalam masa seminggu?*	YES/NO *YA TIDAK*

•	Do you give permission for your child's data from this study to be shared with other researchers in the future provided that your child's anonymity is protected? *Adakah anda memberikan kebenaran untuk data anak anda daripada kajian ini dikongsi dengan penyelidik lain dengan syarat nama anak anda tidak dinyatakan?*	YES/NO *YA/TIDAK*

Name of student (in block letters): _____
Nama pelajar (dalam huruf besar)

Class : _____
Kelas

School: _____
Sekolah

Signature of the Parent : _____
Tandatangan Ibu Bapa

Name (in block letters): _____
Nama (dalam huruf besar

Date :_____
Tarikh

FASS2018-0014/SoEd/PR18017509

LEARNER'S INFORMATION SHEET

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Information Sheet for ESL Learners

Faculty of Arts and Social Sciences
School of Education

Project Title: A study on behavioural and psychological indicators for the influence of teacher personality on communication apprehension among ESL learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

This is an invitation to take part in a research study on language learners' communication apprehension. This information is designed to tell you what it will involve.
Ini adalah jemputan untuk mengambil bahagian dalam kajian penyelidikan mengenai kebimbangan komunikasi pelajar. Maklumat ini direka untuk memberitahu anda apa yang ia terlibat.

Participation is voluntary, and you may change your mind about your participation. You are free to withdraw from taking part in this study at any point before or during the study.
Penyertaan adalah sukarela, dan anda boleh mengubah fikiran anda untuk menyertainya. Anda bebas untuk menarik diri daripada mengambil bahagian dalam kajian ini pada bila-bila masa sebelum atau semasa kajian.

If you have any questions or comments please speak to your teacher or the researcher.
Sekiranya anda mempunyai sebarang pertanyaan atau komen, sila rujuk dengan guru atau penyelidik anda.

Thank you for your cooperation. Your time is highly valuable and appreciated.
Terima kasih atas kerjasama anda. Masa anda sangat berharga dan dihargai.

What is the project about?
This research looks at the influences of personality types on the communication apprehension of Malaysian primary school students. This study focuses on teacher-student interaction.
Apakah projek berkenaan?
Kajian ini adalah untuk melihat pengaruh jenis keperibadian mengenai kebimbangan komunikasi pelajar sekolah rendah di Malaysia. Kajian ini memberi tumpuan kepada interaksi guru-pelajar.

Who is being asked to take part, and why?
For the purpose of this study, participants will consist of primary school learners (Primary 6) in any public schools in Malaysia and English language teachers of public schools in Malaysia.
Siapa yang diminta mengambil bahagian, dan mengapa?
Untuk tujuan kajian ini, peserta adalah terdiri daripada pelajar sekolah rendah (Darjah 6) di mana-mana sekolah awam di Malaysia dan guru Bahasa Inggeris sekolah-sekolah awam di Malaysia..

What will I be asked to do?
You are required to answer a questionnaire of 33 questions which should not take more than 15 minutes of your time. Before answering the questionnaire, carefully read and sign the consent form to participate in this study. By doing so, you agree to be part of the research project. You will also be observed during interaction with your teacher. If you wish to participate, you can state in the space provided in the consent form.
Apa yang akan saya diminta lakukan?
Anda dikehendaki menjawab soal selidik yang mengandungi 33 soalan yang tidak akan mengambil masa lebih daripada 15 minit daripada masa anda. Sebelum menjawab soal selidik ini, bacalah dengan teliti dan tandatangan borang persetujuan untuk mengambil bahagian dalam kajian ini. Dengan membuat demikian, anda bersetuju untuk menjadi sebahagian daripada projek penyelidikan. Anda juga akan diperhatikan semasa interaksi dengan guru anda. Jika anda ingin mengambil bahagian, anda boleh nyatakan di ruang yang disediakan dalam borang persetujuan.

Will the research be of any personal benefit to me?
It is hoped that the outcome of this research will help us know more about the influence of personality types on learners' communication apprehension.
Adakah kajian ini akan memberi manfaat peribadi kepada saya?
Hasil daripada kajian ini diharapkan dapat membantu kita mengetahui dengan lebih lanjut mengenai pengaruh jenis keperibadian mengenai kebimbangan pelajar.

What will happen to the information I provide?
No one can identify who you are. Your name will not be used in the reports. The questionnaires will be in a safe place. Only the researcher can look at the information that you give. The researcher will make sure that in the report, your name will not appear.
Apa yang akan berlaku terhadap maklumat yang saya berikan?
Tiada sesiapa yang boleh mengenal pasti siapa diri anda. Nama anda tidak akan digunakan dalam laporan. Soal selidik akan disimpan di tempat yang selamat. Hanya penyelidik yang boleh melihat maklumat yang anda berikan. Penyelidik akan memastikan nama anda tidak akan muncul di dalam laporan.

What will you do with the data?
The data collected from this questionnaire will be used for the researcher's thesis.
Apa yang akan anda lakukan dengan data?
Data yang dikumpul dari soal selidik ini akan digunakan untuk tesis penyelidik.

If you have any questions or concerns, please speak to your teacher or the researcher.
Jika anda mempunyai sebarang pertanyaan atau kebimbangan, sila jumpa dengan guru atau penyelidik anda.

THANK YOU FOR YOUR COOPERATION
TERIMA KASIH ATAS KERJASAMA ANDA

FASS2018-0014/SoEd/PR18017509

LEARNER'S CONSENT FORM

The University of Nottingham
UNITED KINGDOM • CHINA • MALAYSIA

Consent Form (ESL Learners)

Faculty of Arts and Social Sciences
School of Education

Project Title: A Study on Behavioural and Psychological Indicators for the Influence of Teacher Personality on Communication Apprehension Among ESL Learners

Researcher:
Priyadharishiny a/p Rajeindram E-mail: sbxpr1@nottingham.edu.my

Supervisors
Prof Dr Ganakumaran Subramaniam E-mail: Ganakumaran.Subra@nottingham.edu.my
Dr Lucy Bailey E-mail: Lucy.Bailey@nottingham.edu.my

Ethics Approval Reference Number: FASS2018-0014/SoEd/PR18017509

• Have you read and understood the Participant Information? *Sudahkah anda membaca dan memahami Maklumat Penyelidikan?*	YES/NO *YA TIDAK*
• I agree to answer a questionnaire. *Saya bersetuju untuk menjawab soal selidik.*	YES/NO *YA TIDAK*
• I agree to take part in an interview that will be recorded and a communicative task that will be observed and video recorded. *Saya bersetuju untuk mengambil bahagian dalam temuduga yang akan direkodkan dan aktiviti komunikasi yang akan diperhatikan dan dirakam.*	YES/NO *YA TIDAK*
• I agree to use a mobile eye tracker to track the eye movements during observed communicative tasks. *Saya bersetuju menggunakan Eye Tracker mudah alih untuk mengesan pergerakan mata semasa aktiviti komunikasi yang diperhatikan*	YES/NO *YA TIDAK*
• Do you know how to contact the researcher if you have questions about this study? *Adakah anda tahu bagaimana untuk menghubungi penyelidik jika anda mempunyai soalan mengenai kajian ini?*	YES/NO *YA TIDAK*
• Do you understand that you are free to withdraw from the study without giving a reason? *Adakah anda faham bahawa anda bebas untuk menarik diri dari kajian tanpa memberikan sebab?*	YES/NO *YA TIDAK*
• Do you understand that once you have been interviewed it may not be technically possible to withdraw the data unless requested within *a week*?	YES/NO *YA TIDAK*

	Adakah anda faham sekiranya anda telah ditemuramah anda tidak boleh menarik balik data melainkan anda minta dalam masa seminggu?	
•	Do you give permission for your data from this study to be shared with other researchers in the future provided that your anonymity is protected? *Adakah anda memberikan kebenaran untuk data anda daripada kajian ini dikongsi dengan penyelidik lain dengan syarat nama anda tidak dinyatakan?*	YES/NO *YA/TIDAK*

Name of student (in block letters): _____
Nama pelajar (dalam huruf besar)

Class : _____
Kelas

School: _____
Sekolah

Date :_____
Tari

FASS2018-0014/SoEd/PR18017509

APPENDIX B - Survey Instrument

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Questionnaire for ESL Learners

Dear Participant,

Thank you for taking your time to fill in this questionnaire and agreeing to be part of this research study. This questionnaire will take around 30 minutes to complete. The questionnaire contains three (3) sections. We would like to request you to complete all three (3) sections of this questionnaire.

Peserta yang dihormati,

Terima kasih kerana meluangkan masa untuk mengisi soal selidik ini dan bersetuju untuk menjadi sebahagian daripada kajian penyelidikan ini. Soal selidik ini akan mengambil masa selama 30 minit untuk diselesaikan. Soal selidik mengandungi tiga (3) bahagian. Kami ingin meminta anda melengkapkan semua tiga (3) bahagian soal selidik ini.

Section One: Background Information
Bahagian Satu: Maklumat Latar Belakang

These questions are about you. Please tick [√] the appropriate box.
Soalan-soalan ini mengenai anda. Sila tandakan [√] kotak yang sesuai.

1. What is your gender?
   Apakah jantina anda?
   - ☐ Female
     Perempuan
   - ☐ Male
     Lelaki

2. What is your race?
   Apakah kaum anda?
   - Malay
     Melayu
   - Chinese
     Cina
   - Indian
     India
   - Other (please specify):
     Lain-lain (Sila nyatakan): _____

3. What is the language that you use to speak at home?
Apakah bahasa yang anda gunakan untuk bercakap di rumah?

English
Bahasa Inggeris

Malay
Bahasa Malaysia

Mandarin
Bahasa Cina

Tamil
Bahasa Tamil

Other (please specify)
Lain-lain (Sila nyatakan): _____

4. What is the language you mostly use to speak to friends?
Apakah bahasa yang anda gunakan untuk bercakap dengan kawan-kawan?

English
Bahasa Inggeris

Malay
Bahasa Malaysia

Mandarin
Bahasa Cina

Tamil
Bahasa Tamil

Other (please specify)
Lain-lain (Sila nyatakan): _____

Section Two: What are you like? How you behave?

Bahagian Dua: Apa yang anda suka? Bagaimana anda berkelakuan?

Section two contains descriptions of various situations. Here is an example of the situation:

Bahagian dua mengandungi keterangan pelbagai situasi. Berikut adalah contoh keadaan:

"When it is raining..."

"Apabila hujan ..."

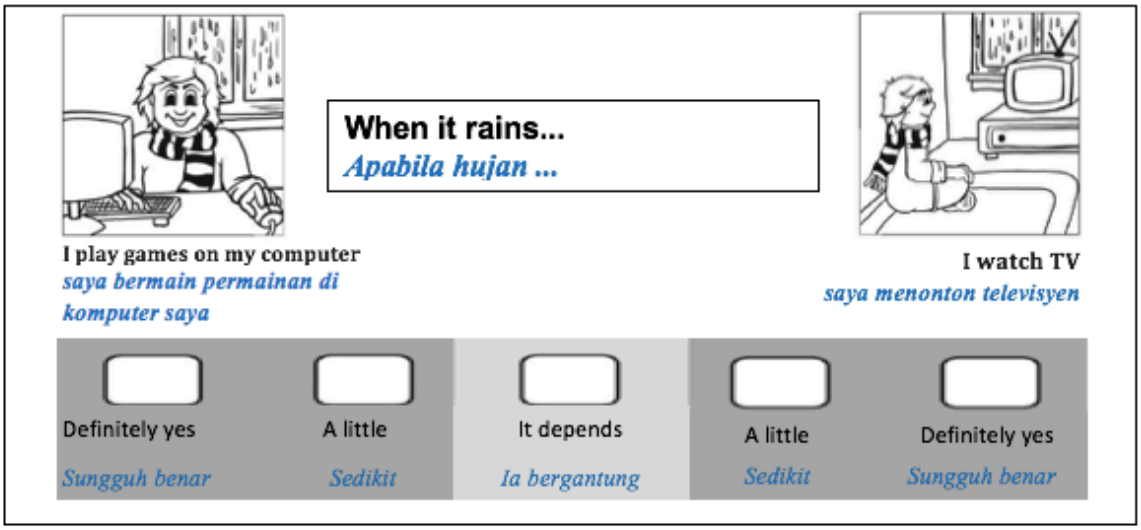
The situations are shown in the pictures, on which the main role is played by this person in a striped scarf,

Gambar dibawah menunjukkan keadaan, dimana peranan utama dimainkan oleh orang yang memakai selendang berjalur,



which in two pictures does two completely different things, e.g.

dimana terdapat dua gambar yang menunjukkan perkara yang amat berbeza, contohnya





1. I usually play ...
Saya biasanya bermain ...



on my own
sendiri

with others
dengan orang lain

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



2. When I usually go to school...
Apabila saya ke sekolah ...



I'm worried
saya risau

I'm not worried
saya tidak risau

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



3. When I see birds are flying ...
Apabila saya nampak burung terbang ...



It does not impress me
ia tidak mengagumkan saya

It impresses me a lot
ia sangat mengagumkan saya

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



4. When I am asked to do the house chores...

4. Apabila saya diminta membuat kerja rumah ...



I am willing to do it
Saya sanggup melakukannya

I am not willing to do it
Saya tidak sanggup melakukannya

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



5. When someone in my class needs something ...

5. Apabila seseorang di dalam kelas saya memerlukan sesuatu



I do not notice it
saya tidak menyedarinya

I notice it and help them
saya menyedarinya dan membantu mereka

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



6. When others play ...

6. Apabila orang lain bermain ...



I join them
saya menyertai mereka

I do not join them
saya tidak menyertai mereka

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



7. When something goes wrong ...
Apabila ada masalah ...



I stay calm
saya tetap tenang

I quickly get nervous
saya cepat gementar

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



8. On a trip, I like to ...
Dalam perjalanan, saya suka ...



explore and discover new things
meneroka dan menemui sesuatu yang baru

have fun and relax
berseronok dan berehat

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



9. My bedroom is ...
Bilik tidur saya adalah ...



messy
tidak kemas

tidy
kemas

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



10. When I see that I can help someone ...

10. Apabila saya melihat bahawa diri saya mampu untuk membantu orang lain...



I help
saya membantu

I do not help
saya tidak membantu

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



11. When somebody jokes ...

11. Apabila seseorang bercanda ...



it does not make me laugh
saya jarang fikir ia lucu

I laugh with them
saya akan ketawa dengan mereka

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



12. Usually...

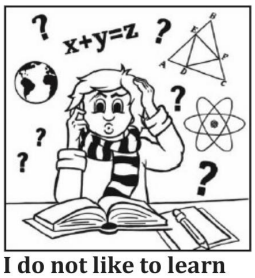
12. Biasanya ...



I'm worried
saya bimbang

I'm not worried
saya tidak bimbang

Definitely yes	A little	It depends	A little	Definitely yes
Sungguh benar	*Sedikit*	*Ia bergantung*	*Sedikit*	*Sungguh benar*



I do not like to learn
saya tidak suka belajar

13. New and difficult things ...
Perkara-perkara yang baru dan sukar ...



I like to learn
saya suka belajar

Definitely yes *Sungguh benar*	A little *Sedikit*	It depends *Ia bergantung*	A little *Sedikit*	Definitely yes *Sungguh benar*



I save
saya simpan

14. When I get money from someone ...
Apabila saya mendapat wang dari seseorang ...



I spend it right away
saya menghabiskannya dengan

Definitely yes *Sungguh benar*	A little *Sedikit*	It depends *Ia bergantung*	A little *Sedikit*	Definitely yes *Sungguh benar*



I do not lend it to others
saya tidak meminjamkannya kepada orang lain

15. When I have a new toy ...
Apabila saya mempunyai alat permainan baru ...



I lend it to others
saya meminjamkannya kepada orang lain

Definitely yes *Sungguh benar*	A little *Sedikit*	It depends *Ia bergantung*	A little *Sedikit*	Definitely yes *Sungguh benar*

Section Three: More about myself
Bahagian Tiga: Lebih banyak tentang diri saya sendiri

Section B contains statements about how you feel when talking to others. For each statement, tick [V] the box accordingly.
Bahagian B mengandungi pernyataan mengenai perasaan anda ketika bercakap dengan orang lain. Untuk setiap kenyataan, tandakan tandakan [V] kotak dengan sewajarnya.

Example:
Contoh:

1.	I enjoy reading story books. *Saya suka membaca buku cerita*				
	Strongly Agree *Sangat setuju* ☑	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak Setuju* ☐

1.	Talking with someone new scares me. *Saya berasa takut untuk berbual dengan orang yang baru.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
2.	I look forward to talking in class. *Saya menanti untuk bercakap dalam kelas.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
3.	I like standing up and talking to a group of people. *Saya suka berdiri dan bercakap dengan sekumpulan orang.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
4.	I like to talk when the whole class listens. *Saya suka bercakap apabila seluruh kelas mendengar.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*

5.	Standing up to talk in front of other people scares me. *Berdiri untuk bercakap di hadapan orang lain menakutkan saya.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
6.	I like talking to teachers. *Saya suka berbual dengan guru-guru.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
7.	I am scared to talk to people. *Saya takut untuk berbual dengan orang lain.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
8.	I like it when it is my turn to talk in class. *Saya suka apabila tiba giliran saya untuk bercakap di kelas.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
9.	I like to talk to new people. *Saya suka berbual dengan orang baru.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
10.	When someone asks me a question it scares me. *Ia menakutkan saya apabila seseorang bertanyakan saya soalan.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
11.	There are a lot of people I am scared to talk to. *Terdapat ramai orang yang saya takut untuk berbual dengan.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
12.	I like to talk to people I haven't met before. *Saya suka berbual dengan orang yang saya tidak jumpa sebelum ini.*				

	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
13.	I like it when I don't have to talk. *Saya suka apabila saya tidak perlu berbual.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*
14.	Talking to teachers scares me. *Berbual dengan guru menakutkan saya.*				
	Strongly Agree *Sangat Setuju* ☐	Agree *Setuju* ☐	Not Sure *Tidak Pasti* ☐	Disagree *Tidak Setuju* ☐	Strongly Disagree *Sangat Tidak* ☐ *Setuju*

APPENDIX C - Survey Scoring Guideline

Table C.1

Guide for Scoring the PPTQ-C by Mackiewicz & Cieciuch's (2016).

Personality Traits and Items	Guide
Extraversion: 1, 6R, 11 Neuroticism: 2R, 7, 12R Openness: 3, 8R, 13 Conscientiousness: 4R, 9, 14R Agreeableness: 5, 10R, 15	Each item on the PPTQ-C (older children's version) is rated on a 5-point scale where: • Definitely = 1 (5 for reverse scored items) • A little bit = 2 (4 for reserve scored items) • It depends = 3 • A little bit = 4 (4 for reserve scored items) • Definitely 5 (1 for reverse scored items) Step 1: Reverse score the following items: 2, 4, 6, 10, 12, 14 Step 2: Compute scale scores by summing the items for each dimension

Table C.2

Guide for scoring the PRCF Scale by McCroskey et al (1981).

Scoring system	Steps
Strongly Agree = 1 Agree = 2 Not Sure = 3 Disagree = 4 Strongly Disagree = 5	Step 1: Add the scores for the following statements: 2 / 3 / 4 / 6 / 8 / 9 / 12. Step 2: Add the scores for the following statements: 1 / 5 / 7 / 10 / 11 / 13 / 14. Step 3: Add 42 to the total of Step 1. Step 4: Subtract the total of Step 2 from the total of Step 3.

APPENDIX D - Assumptions of Statistical Tests (Study 1)

ASSUMPTIONS OF ANOVA

Types of Data. The dependent variables were personality scores, all measured at continuous level while the independent variables, gender and ethnic groups were categorical data and comprised of independent groups.

Normality. The Shapiro-Wilk values for all five personalities were significant ($p < .001$), indicating that the data sets were not normally distributed. This was not surprising because personality scores may not have a normal distribution and these variations are considered valid (Micceri, 1989). It has been argued that although personality scores are usually close to normal distribution, there is still a possibility for personality scores to not be normally distributed (Uysal & Pohlmeier, 2011). Therefore, in addition to Shapiro-Wilk, the values for skewness and kurtosis of each of the five personalities were calculated, and all five personality scores were found to fall between the acceptable range of -2 and 2 (Warner, 2012). Table D.1 displays the Shapiro-Wilk, skewness and kurtosis values for the five personality traits. Normality for the personality data sets was decided based on the Central Limit Theorem that postulates larger sample approximates a normal distribution (Field, 2018; Peers, 2006), thus it was decided that since this study consisted of a fairly large sample size, normality was assumed on that basis.

Table D.1

Shapiro-Wilk, Skewness and Kurtosis Values for the Five Personality Traits

	Shapiro-Wilk			Skewness		Kurtosis	
Personality Traits	Statistic	df	Sig.	Statistic	Std. Error	Statistic	Std. Error
Extraversion	.914	614	<.001	-.604	.099	-.313	.197
Openness	.927	614	<.001	-.490	.099	-.466	.197
Agreeableness	.895	614	<.001	-.880	.099	.402	.197
Conscientiousness	.884	614	<.001	-.863	.099	.129	.197
Neuroticism	.950	614	<.001	.149	.099	-.500	.197

Homogeneity of Variance. Levene's test for equality of variances showed that the variances for extraversion ($F = 0.734$, $p = .532$), openness ($F = 1.212$, $p = .304$), conscientiousness ($F = 1.801$, $p = .146$) and neuroticism ($F = 1.054$, $p = .368$) were not significantly different. However, for the agreeableness personality trait, Levene's test indicated unequal variances ($F = 3.115$, $p = .026$). As four out of five of the personality traits showed that the variances were not significantly different, and the types of data and normality were not violated, I proceeded with using the factorial ANOVA to examine the interaction of gender and ethnicity with CA levels on the five personality traits, but I interpreted the results with caution.

The descriptive statistics of each personality trait based on the independent variables are presented in Table D.2. Female learners of this study had a generally higher score for all five traits as compared to male learners. For the ethnic groups, the Indian ethnicity has generally higher scores for four personality traits (i.e., extraversion, openness, agreeableness and conscientiousness) while they have also the lowest score for neuroticism personality.

Similarly, the non-high CA learners had generally lower score for neuroticism and higher for the remaining four personality traits, as compared to high CA learners.

Table D.2

Descriptive Statistics of Each Personality Trait Based on CA Levels, Gender and Ethnicity

Independent Variable	Personality Traits				
	E Mean (SD)	O Mean (SD)	A Mean (SD)	C Mean (SD)	N Mean (SD)
CA levels					
Non-high CA	11.95 (2.73)	11.77 (2.71)	12.36 (2.48)	12.27 (2.77)	6.92 (2.72)
High CA	10.50 (3.10)	10.91 (2.72)	11.74 (2.77)	11.51 (2.80)	8.51 (2.62)
Gender					
Female	11.74 (2.86)	12.22 (2.46)	12.46 (2.30)	12.42 (2.67)	7.22 (2.91)
Male	11.70 (2.84)	11.30 (2.82)	12.15 (2.66)	11.99 (2.85)	7.16 (2.68)
Ethnicity					
Malay	11.62 (2.82)	11.45 (2.74)	11.98 (2.55)	11.87 (2.88)	7.22 (2.79)
Chinese	10.94 (3.02)	10.57 (2.58)	12.43 (2.89)	12.31 (2.80)	7.86 (2.26)
Indian	12.16 (2.87)	12.39 (2.68)	12.99 (2.26)	12.96 (2.29)	6.69 (2.65)
Mixed-ethnicity	12.00 (2.85)	12.00 (2.13)	12.79 (2.60)	12.25 (3.01)	8.33 (3.02)

Note. $N = 614$.

E = Extraversion, O = Openness, A = Agreeableness, C = Conscientiousness, N = Neuroticism

ASSUMPTIONS OF LINEAR MULTIPLE REGRESSION MODEL

Assumption of variable types. For all the four hierarchical multiple linear regressions, the predictor variables were the same, i.e., gender, ethnicity and personality scores i.e., extraversion, openness, agreeableness, conscientiousness and neuroticism. Gender and ethnicity as the predictor variables were categorical with two categories i.e., Male and Female and four categories i.e., Malay, Chinese, Indian and mixed-ethnicity, respectively. dummy variables were created to include gender and ethnicity as a predictors. In addition, the five personality scores, were also used as predictors. The dependent variables in this study were communication apprehension score, classroom communication fear score, general communication fear score and stranger communication fear score

Assumption of no outliers. Outliers were checked through examination of the box plot diagrams for each of the dependent variables. Through careful inspection, it was concluded that none of the cases had extreme values in more than two of the outcome variables. However, it is possible that outliers may be naturally present in the sample population through random chance (Osborne & Overbay, 2004). In line with the notion that "if outliers are a rightful value of the distribution of interest, then removing this value is not appropriate and will also corrupt the conclusions" (Leys et al., 2019, p.7), it was decided that in this study to keep the outliers as it is possible that learners may experience extremely high and low CA.

Assumption of linearity. Scatterplots of the relationship between each independent variable and the respective dependent variable for each multiple hierarchical linear regression were produced and examined. A visual inspection of the scatterplots showed linear relationship between the independent variables and the dependent variables.

Assumption of normally distributed errors. The histograms with a superimposed normal curve and the normal P-P plots of the regression standardized residuals for each of the dependent variable in each of the hierarchical multiple linear regression were examined. For all four of the hierarchical multiple linear regression, it was observed in the histograms that the standardized residuals were approximately normally distributed, while the normal P-P plots showed the data points did not deviate significantly from the line of best fit and they were aligned in a positive direction. Thus, the predicted errors of the residuals for all four of the hierarchical multiple linear regression models were normally distributed.

Assumption of multicollinearity. Pearson's correlation coefficients, the tolerance statistic (T) and variance inflation factor (VIF) were used to test this assumption. None of the independent variables had a correlation above .90 which indicated that no variable was collinear (Field, 2018). To further confirm that there was no perfect relationship between the predictors, the tolerance statistic and VIF values were examined. As the tolerance statistic scores were above .20, and the VIF scores were not above 10 with the highest VIF value being 1.261 (conscientiousness), it was concluded that there was no perfect multicollinearity between the predictors (Field, 2018).

Assumption of normality and homoscedasticity. The normal Q-Q plot of the dependent variable in each of the hierarchical multiple linear regression were examined. For all four of the hierarchical multiple linear regression, it was observed in the normal Q-Q plots that the data points did not deviate significantly from the line of best fit and they were aligned in a positive direction. Thus, meeting the assumptions of normality and homoscedasticity.

Figure D.1

Normal Q-Q Plot of Total CA Score

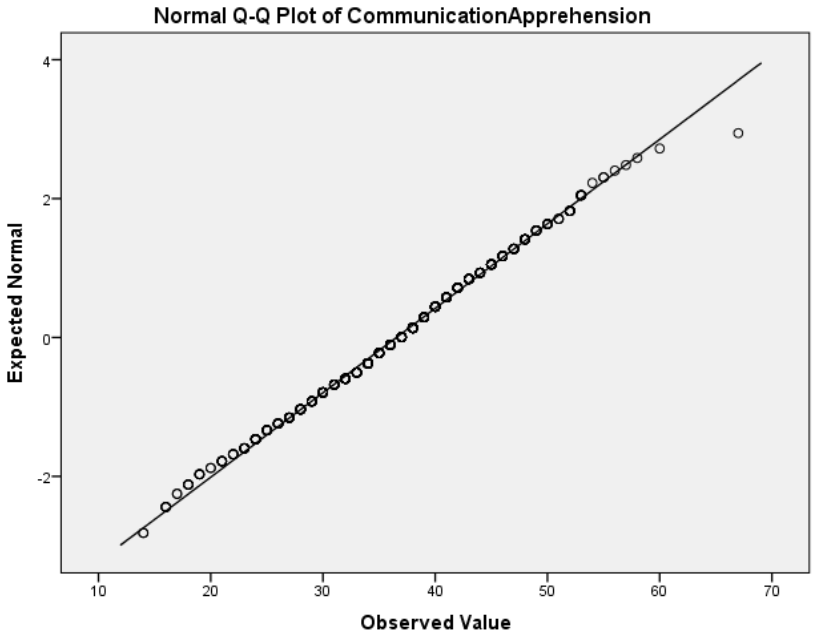


Figure D.2

Normal Q-Q Plot of CCF Score

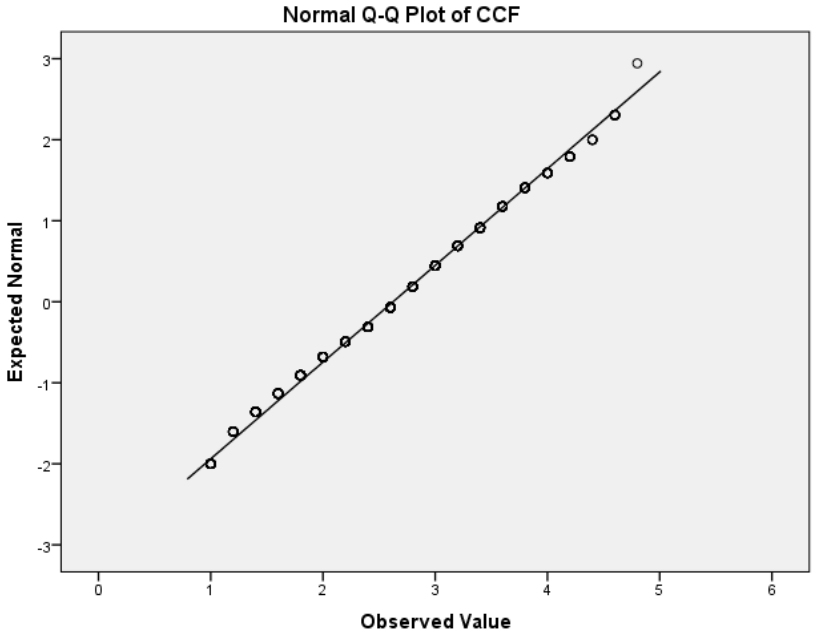


Figure D.3

Normal Q-Q Plot of GCF Score

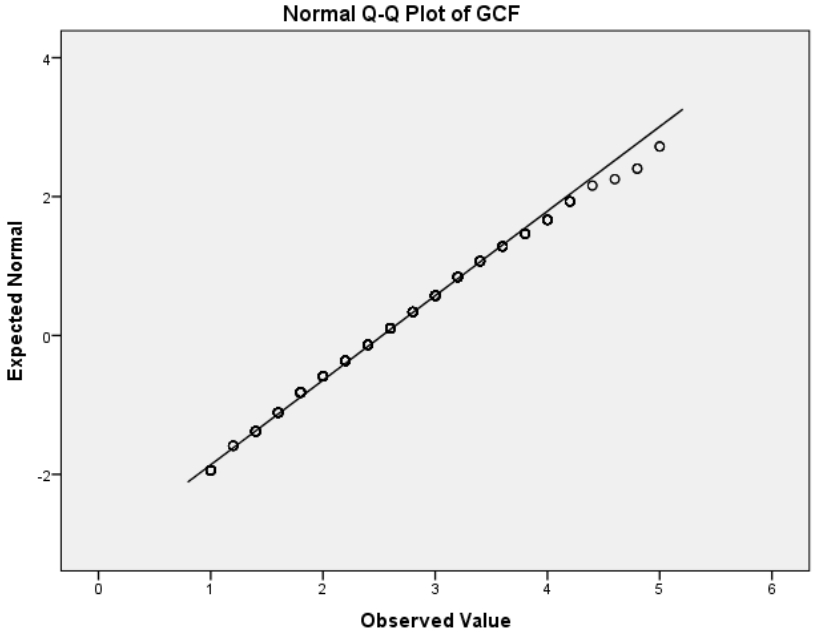
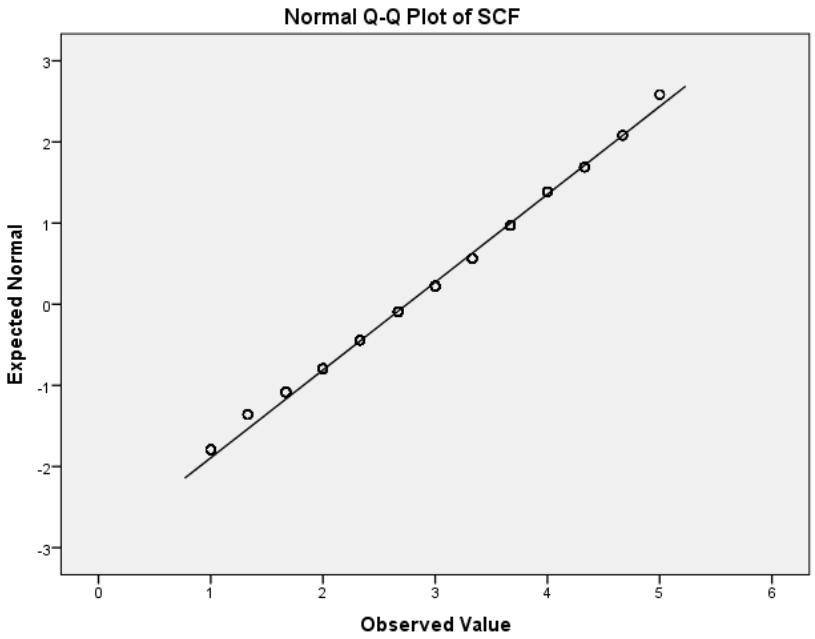


Figure D.4

Normal Q-Q Plot of SCF Score



APPENDIX E - Observation Guideline for Teachers

Dear Teacher,

Thank you very much for agreeing to be part of this research study. Your kind contribution is highly appreciated for the success of this study. This document consists of guidelines for the observation that will be conducted. Please do not hesitate to contact me should you need further clarification.

Researcher,
Priyadharishiny Rajeindram

A. Classroom observation

This study aims to investigate the influences of personality types on the communication apprehension of Malaysian primary school students. As such, classroom observation will be conducted to understand the behaviour of learners and gain additional insights into learners' experiences of communication apprehension. The researcher will observe learner and teacher interaction in the classroom. As the focus of this study is on the learners, the observation will solely be conducted to study learners' behaviours during interaction with the teacher. The teacher will not be observed at any point in this research.

The interactions will be video-recorded and the researcher will not be present in the classroom. The observation will be on verbal and non-verbal behaviours of the language learners during one on one interaction with the teacher. As part of the behavioural constructs, learners' eye movement behaviours during interaction will be observed. The learners will be given a mobile eye tracker to use in the classroom. More information on the eye tracker can be found in the sections below.

B. Eye tracking equipment

1. **Description of equipment:**



a. This portable eye tracking equipment is produced by **Pupil Labs**.
b. This eye tracking equipment is used to measure either the point of gaze (where one is looking) or the eye movement behaviour.
c. Further information on the equipment can be obtained from the Pupil Lab's website https://pupil-labs.com

2. **Equipment general instructions**
   a. The particular student will be given the equipment to wear before your English lesson.

b. The student will receive clear and step-by-step instructions on the use of the equipment.
c. The student will also be informed to be cautious throughout the use of the equipment as it is sensitive to touch. (However, normal head movements are not restricted when using the eye tracker)

3. **Use of the equipment**
   a. The eye tracking glasses must be worn by the particular student throughout the whole time.
   b. If there is a need to adjust the equipment, kindly seek help from the researcher and do not attempt to adjust it yourself.
   c. Kindly ensure that the other students in the class and the student being observed do not touch the eye tracking glasses as they are highly sensitive.
   d. If you realise that the position of the eye tracker worn by the student has moved or the student feels uncomfortable wearing the equipment, seek help from the researcher for it to either be removed or adjusted.
   e. Kindly observe the learner's behaviour while wearing the eye tracking glasses. (*Is the student behaving differently because of the equipment? If yes, kindly take note and inform the researcher after your lesson.*)
   f. The student will also need to approach the researcher if there is a need to go to the toilet. The researcher will remove the eye tracker.

C. Video recording

1. There will be 3-4 video cameras placed in the classroom for observation purposes.
2. The video cameras will be placed in a way that they focus on a particular area in the classroom.
3. Kindly ensure that the student who is going to be observed is seated in the particular area.
4. The researcher will give clear instructions on the particular area in which the student should be seated as well as the angles in which the video cameras are set up. (This is to avoid any physical obstructions to the recording.)

D. Communicative task (Student – Teacher Interaction)

1. The specific student that will be observed will be pointed out to the teacher prior to the lesson.
2. In order to observe students' behaviour during one to one interaction with the teacher, the teacher will need to approach the 'specific' student to create a conversation.
3. The interaction with the specific student needs to follow the following guidelines:
   i. The interaction should last for at least 1 minute.
   ii. The conversation should not entail any matters related to misbehaviour.
   iii. The interaction should be along the lines of getting them to share their ideas, knowledge or experience related to the content of the lesson.
   iv. The interaction should not be aimed at testing their knowledge or content taught in the classroom.
   v. The interaction needs to be between the teacher and the particular student.
   vi. The interaction should not be between the student, the teacher and the entire classroom.
   vii. The interaction should not be between the student and other student(s).

Please be assured that the observation is solely on the learners and not on the teacher. Lessons should be conducted as per usual. The lessons should not be altered specifically for this study.

THANK YOU

APPENDIX F - Learner Interview Protocol

Date: _____ **Venue:** _____

Time: _____ **Duration:** _____

Interviewer: _____

Interviewee: _____ **Ref code:** _____

Background

1. Tell me a little about your background.
    a. Where are you from?
    b. How many siblings do you have?
    c. When is your birthday?
    d. What is your favourite subject?
    e. What do you want to be when you grow up?

2. Tell me a little about your favourite teachers.
    a. Why were they your favourite?
    b. What about the teachers you learned a lot from?
    c. What did they do that helped you learn?

Communication Behaviours

Proxemics

3. When you are talking to your teacher, where do you feel comfortable to stand/sit?
    a. Do you feel better when your teacher sits down next to you when he/she talks to you talk?
    b. Do you prefer your teacher to sit beside you or in front of you when he/she talks to you?

4. Do you know why you prefer that position to stand or sit when you are talking to your teacher?

Eye contact / gaze

5. When you are talking to someone, do you prefer to have eye contact (look at their eyes)?
    a. Do you prefer to look elsewhere during interaction?
    b. How do you feel when your someone makes eye contact with you during interaction?
    c. When you are talking to someone, do you try to avoid making eye contact with them?
    d. When you are talking to someone, do you try to make eye contact with them?

6. Do you look at your teacher's eye when you speak to him/her?
    a. Do you prefer to look elsewhere during interaction with your teacher?
    b. How do you feel when your teacher makes eye contact with you during interaction?
    c. Is there any difference whether the teacher does or does not make eye contact during interaction?
    d. During interaction, do you try to avoid making eye contact with your teacher?
    e. During interaction, do you try to make eye contact with your teacher?

Communication Apprehension

General

7. How do you feel when you are communicating with a new person?
    a. While talking with a new person, do you feel very nervous?
    b. Do you feel scared to talk to others? If yes, why do you think you are afraid?

8. When do you usually feel nervous to talk or communicate?
    a. Does it scare you when someone asks you a question?

9. Do certain parts of your body feel very tense and rigid while communicating with others?
    a. Do you feel that your heart beats faster when you are communicating with a new person?

Interaction with teacher

10. Ordinarily, are you very tense and nervous or very calm and relaxed when talking to your teacher? Why?
    i. Are you afraid to communicate with your teacher in the classroom?
    ii. Are you afraid to communicate with your teacher out of the classroom?

11. Do certain parts of your body feel very tense and rigid while interacting with your teacher?

12. Does it scare you when your teacher asks you a question?

Reflection of earlier task

13. Did you feel uncomfortable wearing the eye tracker?
    a. Were you thinking about the eye tracker when you were doing your work in the class?
    b. Did you forget that you were wearing an eye tracker?
    c. Were you afraid to wear the eye tracker?
    d. Do you think wearing the eye tracker made it difficult to communicate with others?

14. Did you feel uncomfortable that you were being recorded?

15. How did you feel earlier when you were communicating with your teacher in the classroom?
    a. Were you nervous/scared when your teacher was talking to you?
    b. Why were you nervous?

THANK YOU VERY MUCH FOR YOUR COOPERATION AND PARTICIPATION

APPENDIX G - Teacher Interview Protocol

Date: _____ **Venue:** _____

Time: _____ **Duration:** _____

Interviewer: _____

Interviewee: _____ **Ref code:** _____

Students Behaviour and Personality

1. What is the general communication behaviour and culture among students in the classroom?
   i. How do students behave in general in the classroom?
   ii. Are students open to asking questions?
   iii. Are students open to answering questions?
   iv. Are there particular students that ask more questions?
   v. Are there particular students that mostly answer the questions in the classroom?

Teachers' Take on Communication Apprehension

2. Can you define and describe communication apprehension among young learners?
   i. Do you perceive communication apprehension among learners as a big issue?
   ii. Why do you think learners experience communication apprehension?
   iii. Do you have ideas to help overcome communication apprehension among young learners?
   iv. Do you think it is important for teachers' to help solve young learners' communication apprehension?
   v. Do you think it is worth addressing young learners' communication apprehension?

Students' Communication Apprehension

3. Do you feel CA is an issue in your class? How do you identify communication apprehension in your students?
   i. Describe the behaviours of students with high communication apprehension in your classroom.
   ii. Describe the personality of students with high communication apprehension in your classroom.
   iii. Describe the behaviours of students with low communication apprehension in your classroom.
   iv. Describe the personality of students with low communication apprehension in your classroom.
   v. What is the difference between students with high communication apprehension and students with low communication apprehension?
   vi. What are wider implications of communication apprehension on student academic achievement?

Specific Students' Communication Apprehension, Behaviour and

4. Do you think that *(name of student)* has communication apprehension?
   i. Why do you think that this student does / doesn't have high communication apprehension?

5. Describe *(*name *of student)*'s personality in the classroom.

6. Based on the contrasting personality traits that I am going to give, identify the traits that best describes (name *of student)*'s personality.
   a. imaginative/curious vs. rule-bound/cautious
   b. efficient/organized vs. disorganized/careless
   c. outgoing vs. reserved
   d. friendly/compassionate vs. difficult/detached
   e. sensitive/nervous vs. secure/confident

7. Describe *(name of student)*'s behaviour when communicating with you in English in the classroom.
   i. Does *(name of student)* usually create eye contact with the you during interaction?
   ii. Does *(name of student)* usually have or demonstrate any of the following when communicating or interacting with you in class?:
      a. Shaky hands,
      b. Fidgeting, swaying, pacing, feet shuffling
      c. Short or long silent pauses
      d. Vocalised pauses 'uh, um, ah, you know…'
      e. Quavering voice
      f. Speak too fast or too slow
      g. Talk a lot or very little
      h. Refuse to speak or respond when you communicate with him/her?

Teaching Philosophy

8. What are your philosophy and beliefs about teaching?

Teachers' Personality

9. Tell me about your personality.
   i. How would you describe yourself as a teacher?
   ii. How would you describe yourself as a person?
   iii. Why do these personalities differ?

Pedagogical and Teaching Practices in the Classroom

10. How do you practice classroom management?
    i. Can you describe you policies related to classroom and student behavior management?
    ii. In your opinion, how important is classroom and student behaviour management? Why?
    iii. What are the types of student behaviours that you find easiest to manage?
    iv. Are there any types of student behaviours that can be challenging to manage?
    v. In your opinion, what are the examples of ideal student behaviours in a classroom?

11. What are your goals and expectations for your students?
    i. How do you or how have you set expectation and goals for your students in your class?
    ii. In your opinion, what is an ideal teacher expectation and goal setting for young language learners?

12. What are the common teaching methods you use in class?
    i. What are the teaching methodologies that you mostly use to teach English?
    ii. What are the types of teaching methodologies that you dislike using when teaching English?
    iii. In your opinion, what are the specific teaching methods that English teachers should use?
    iv. In your opinion, what are the specific teaching methods that English teachers should avoid using?

13. What are the strategies that you use to motivate your learners?
    i. How do you normally motivate your students in the classroom?
    ii. In your opinion, what are the ideal ways of facilitating students' motivation in the classroom?
    iii. In your opinion, what are the least ideal ways of facilitating students' motivation in the classroom?

14. What are your views on student-teacher interaction in the classroom?
    i. Do you think learners avoid or hesitate to communicate with teachers in the classroom? Why?
    ii. What are the examples and types of communication that takes place with your students in the classroom?
    iii. In your opinion what are the types of interaction that are necessary between a teacher and a student?
    iv. In your opinion what are the types of interaction that are unnecessary between a teacher and a student?
    v. As a teacher, what does a student's communication behaviour tell you about them?
    vi. Do you think your communication behaviour changes in accordance to the student's communication behaviour? (-how and why)
    vii. What are the types of communication behaviour do you like? (why)

15. What are the types of feedback you usually give your students in the classroom?
    i. How do you usually give your students feedback during lesson?
    ii. How do students react to feedback given in the classroom?
    iii. How do you think teachers' feedback impact students' communication in the classroom?
    iv. What are the types of feedback you find most effective in the classroom?
    v. In your opinion, what are the types of feedback teachers should give their students in the classroom?
    vi. In your opinion, what are the types of feedback teachers should be giving their students in the classroom?

THANK YOU VERY MUCH FOR YOUR COOPERATION AND PARTICIPATION

APPENDIX H - Coding Schemes

NONVERBAL AND VERBAL CODING SCHEME
(Adopted from Lindberg et al. 2021)

- Nods and blinks are numeric, so code how many times they occur in each episode
- The rest of the variables are binary, so enter 1 for the occurrence of the feature, 0 for the absence of the feature

	Coding Category	Definition
Eye Gaze	Gaze Aversion	Never looks at partner (binary)
	Glance Away	Brief gaze shift to the side, up, or down (binary)
	Mutual Gaze	Participants are making eye contact (binary)
Facial and Body Gestures	Blinks	Amount of blinks (numeric)
	Nods	Amount of head nods (numeric)
	Touch Face/Body	Touching their head, face, arm or neck (binary)
	Smile/Laugh	Smiling and/or laughing (binary)
	Brow Movement	Raising or lowering of their eyebrows (binary)
	Partner Hand Gesture	Partner was using hand gestures (binary)
	Body Shift	Shifting their position in their chair, leaning forwards or backwards (binary)
Disfluency	Unfilled pause	Silent pauses longer than 0.5 seconds within a sentence or phrase e.g. "I just arrived here when I was… nineteen."
	Filled pause	Pauses filled within a sentence or phrase (e.g. uh, um) e.g. "Especially the Quebec government should hold a different uh biggest uh most important festival in Quebec."
	Repetition	Repeating the same word or phrase e.g. "We can we can call that like one major problem."
	Repair	Self-corrections of pronunciation, grammar, or vocabular e.g. "Like let's say, when you are in higher – uh High School […]"

TEACHER QUESTIONS CODING SCHEME

(Adopted from Smit et al. 2021)

TEACHER QUESTION TYPE 1

Code: Non-elicitation

Type: Closed

Utterance length: NA

Cognitive level: NA

Description:

These are questions that cannot be answered. For instance, when a teacher does not respond to what the student(s) say. The teacher asks something but does not elicit a response from the student. There is no room for a student answer or thinking. The teacher does not leave a pause for the student to answer. OR This category includes instructions which are phrased as questions. Only verbal responses count. This category includes questions to which the students can only respond non-verbally. Instructions phrased as a question to which a teacher does not want an answer (yet) are also coded as non- elicitation.

Examples:

- "Because it is a different voice, right? Remember that, how the story ended? You don't want to repress your feelings, do you?"
- "Could you read this?"
- "Why did you think I asked you to find pen and paper?"
- "Can you speak English?"

TEACHER QUESTION TYPE 2

Code: Closed question

Type: Closed

Utterance length: Short

Cognitive level: Undemanding

Description:

Questions for definitions, facts or specific terms / words. These are questions asked to see if the learner understood or remembered something. The question is framed in such a way that the student only has to complete a sentence, give a short or yes/no answer. There is a pre-defined answer to this question. Students can answer this question by reproducing lesson content. These are typically WHAT/WHO/HOW MANY questions. The category also includes questions that might have complex lesson content, but guide students in a specific direction that is determined by the teacher. Also questions that only require the students to say for instance "Yes, me" or "No, I didn't" belong to this category.

Examples:

- "What happened? What does the note say? The effect of repression of what?" [This is a chain of questions that should be coded together. The chain goes from a relatively open question to a closed question which can easily be answered in one or a few words.)
- "Ah, Simon, what's this word?"
- "Do you think it's true?" (while discussing an assignment)
- "Did he kill eleven women? Yes?"
- "What is scanning?"
- "What's a fictional character?"
- "Is there anyone who wants to say what that is?" (The answer to be expected here is yes or no.)
- "What did this person do?"
- "Are there any questions?"

TEACHER QUESTION TYPE 3

Code: Clarification question

Type: Semi-open

Utterance length: Full sentence

Cognitive level: Demanding

Description:

A question asked to elicit (more) language and to encourage students to verbalize their answers in full sentences. The question tends to focus on both language and content. Answers to these questions are predominantly descriptive. Students say in their own words what they have heard, read or seen. A teacher asks these questions to sustain the dialogue. This includes questions that ask for explanation or for summarizing in their own words. This category includes questions to make sure the teacher and the other learners understand each other correctly. Teacher encourages students to put the main idea in their own words.

Examples:

- "What is his problem? Why does he lock himself up in his laboratory?"
- "How does Art feel about his brother?"
- "Is that what you mean?" "Do you think it's true?"
- "What do you do when you are scanning?"
- "What are the main themes we identified in this chapter? "
- "Anything else to add?"
- "What happens in here?"
- "What is this saxophone player doing here?"
- "What makes jazz music so honest?"
- "Can you tell us what perfectionist is in your own words?"
- "Can you describe what this person did?"
- "Which one of you had another idea?" (elaboration on the previous question)

TEACHER QUESTION TYPE 4

Code: Open-ended

Type: Open

Utterance length: Full sentence or longer

Cognitive level: Very demanding

Description:

Questions asked to find out meanings, reasons, opinions, predictions, justifications or metacognitive questions. These are questions asked to probe and challenge students' views. Open-ended questions focus on shared meaning making, on asking students to verbalize their thinking. These questions encourage extended student turns. This includes questions without a predefined answer. The question might open up the possibility to add a new element to the lesson. This category includes all WHY questions.

Examples:

- "Why do you think it would be a second honeymoon? What normally happens on your first honeymoon?"
- "What sort of effects of Victorian society on its people were expressed here?"
- "So what do you do when you tackle a multiple choice question?"
- "What do you think? Does he sound as you imagined him to be?"

LEARNER ANSWERS CODING SCHEME

(Adopted from Smit et al. 2021)

LEARNER ANSWER TYPE 1

Code: None
Type: NA
Utterance length: NA
Cognitive level: NA

Description:

Behavior is not connected to the teacher question; learners are not paying attention. Learner does not respond to the teacher question.

Example

- Learner is not paying attention, playing with phone, writing/drawing doodling, staring etc. Silence, no response. " Huh?"

LEARNER ANSWER TYPE 2

Code: Simple
Type: Closed
Utterance length: 1-3 words
Cognitive level: Undemanding

Description:

Learner understands the question and gives very short answer (1-3 words) OR student asks what s/he needs to do. OR student reads out the assignment / text. The type of phrases like "I don't know" should also be included in this category.

Examples:

- "It was a Nazi."
- "His dead brother."
- "Repression of feeling." [Recap of explicit information from the lesson.]
- "What page?"
- " I don't know."

LEARNER ANSWER TYPE 3

Code: Complete
Type: Semi-open
Utterance length: Full sentence or longer
Cognitive level: Demanding

Description:

Learner answers the question, gives the information that can derived from the lesson content. The learner is familiar with both the language s/he is using and the content. This category might include responses in which the learner uses repetition.

Examples:

- He is good at fixing things.[Interpretation of a text.] "I do, but I don't mind explaining it." (Response to a closed teacher question about whether or not students know what a particular literary concept means.)

LEARNER ANSWER TYPE 4

Code: Complex
Type: Open
Utterance length: Longer than one sentence
Cognitive level: Demanding

Description:

Learner gives complex / long (>1 sentence) and, or extensive answer to the teacher's question (for instance by adding new elements to the lesson. OR Learner adds a new perspective to the lesson. OR learner asks the teacher a question to probe).

Examples:

- He feels jealous of him because there is competition between them, but then the competition between them is non-existent, because his future is imaginary."

APPENDIX I - Personality Traits of Case Study Learners

Table I.1

Student participants' personality results from teachers Interview

Big five dimensions	**Specific Personality Traits**	High CA					Low CA				
		H1	H2	H3	H4	H5	L1	L2	L3	L4	L5
Extraversion	Outgoing	/			/		/		/		/
	Reserved		/	/		/		/			
Agreeableness	Friendly	/			/		/	/	/	/	/
	Compassionate	/			/		/	/	/	/	/
	Difficult		/	/		/					
	Detached		/	/		/					
Openness	Imaginative				/		/		/	/	/
	Curious				/		/		/	/	/
	Rule-bound	/	/	/		/		/			
	Cautious	/	/	/		/		/			
Conscientiousness	Efficient	/	/	/				/		/	/
	Organised	/	/	/				/		/	/
	Disorganised				/		/				
	Careless				/		/				
Neuroticism	Sensitive	/	/	/	/	/		/			
	Nervous	/	/	/	/	/		/			
	Secure						/		/	/	/
	Confident						/		/	/	/

Table I.2

Student participants' personality results from survey (PPTQ-C)

		Personality Trait Scores				
		E	**O**	**A**	**C**	**N**
High CA	H1 - Chandran	5	13	15	15	5
	H2 - Siva	11	9	15	11	7
	H3 - Ahmad	7	14	3	15	10
	H4 - Faris	11	11	15	15	6
	H5 - Rizwan	7	9	12	13	7
Low CA	L1 - Vivek	13	12	8	11	8
	L2 - Vincent	6	11	12	14	6
	L3 - Gurmeet	15	15	13	15	8
	L4 - Aarav	15	15	11	15	7
	L5 - Shankar	15	14	11	9	6

Note. The minimum score for each trait is 5 while the maximum is 15.

E – Extraversion, O – Openness, A – Agreeableness, C – Conscientiousness, N – Neuroticism

APPENDIX J - Question and Answer Frequency Counts

Table L.1

Type of Questions and Answers Based on Respective High CA Learners' Observed Interactions (Study 2)

	TEACHERS QUESTIONS				
	Non-Elicitation	Closed	Clarification	Open	***Total***
CHANDRAN'S ANSWERS					
None	0	0	1	2	*3*
Simple	0	3	4	1	*8*
Complete	0	0	2	1	*3*
Complex	0	0	0	0	*0*
Total	*0*	*3*	*7*	*4*	
SIVA'S ANSWERS					
None	0	1	5	1	*7*
Simple	0	3	3	1	*7*
Complete	0	0	0	0	*0*
Complex	0	0	0	0	*0*
Total	*0*	*4*	*8*	*2*	
AHMAD'S ANSWERS					
None	0	0	4	1	*5*
Simple	0	3	3	3	*9*
Complete	0	0	0	0	*0*
Complex	0	0	0	0	*0*
Total	*0*	*3*	*7*	*4*	
FARIS' ANSWERS					
None	0	1	2	0	*3*
Simple	0	2	4	0	*6*
Complete	0	1	1	0	*2*
Complex	0	0	0	0	*0*
Total	*0*	*4*	*7*	*0*	
RIZWAN'S ANSWERS					
None	0	1	0	0	*1*
Simple	0	5	4	0	*9*
Complete	0	0	0	0	*0*
Complex	0	0	0	0	*0*
Total	*0*	*6*	*4*	*0*	

Table L.2

Type of Questions and Answers Based on Respective Low CA Learners' Observed Interactions (Study 3)

	TEACHERS QUESTIONS				
	Non-Elicitation	Closed	Clarification	Open	***Total***
VIVEK'S ANSWERS					
None	0	0	0	0	0
Simple	0	4	4	1	9
Complete	0	0	0	2	2
Complex	0	0	0	0	0
Total	0	4	4	3	
VINCENT'S ANSWERS					
None	0	0	0	1	1
Simple	0	4	4	3	11
Complete	0	0	1	0	1
Complex	0	0	0	0	0
Total	0	4	5	4	
GURMEET'S ANSWERS					
None	0	0	0	0	0
Simple	0	1	7	1	9
Complete	0	3	0	0	3
Complex	0	0	3	0	3
Total	0	4	10	1	
AARAV'S ANSWERS					
None	0	0	0	0	0
Simple	0	14	1	0	15
Complete	0	0	0	0	0
Complex	0	0	0	0	0
Total	0	14	1	0	
SHANKAR'S ANSWERS					
None	0	0	0	0	0
Simple	0	9	4	0	13
Complete	0	0	1	0	1
Complex	0	0	0	0	0
Total	0	9	5	0	

APPENDIX K – Teachers' Demographic Data Form

Background Information

These questions are about you, your education and the time you have spent in teaching. In responding to the questions, please tick (✓) the appropriate box.

1. What is your gender?

- ☐ Female
- ☐ Male

2. What is the main subject that you teach?

- ☐ English
- ☐ Mathematics
- ☐ Science
- ☐ Bahasa Malaysia
- ☐ Kemahiran Hidup
- ☐ Physical Education
- ☐ Music
- ☐ Arts
- ☐ Other (please specify): _____

2. What are the other subjects that you teach? (tick as many as apply)

- ☐ English
- ☐ Maths
- ☐ Science
- ☐ Bahasa Malaysia
- ☐ Kemahiran Hidup
- ☐ Physical Education
- ☐ Music
- ☐ Arts
- ☐ Others (please specify): _____

3. How long have you been working as an English language teacher?

- ☐ Less than 1 year
- ☐ 1 - 5 years
- ☐ 6 - 10 years
- ☐ 11 - 15 years
- ☐ 16 – 20 years
- ☐ More than 20 years

4. Qualification(s) in English Language Teaching (ELT).(tick as many as apply)

- ☐ Bachelor degree | Institution: _____
- ☐ Post-graduate diploma | Institution: _____
- ☐ Master degree | Institution: _____
- ☐ PhD | Institution: _____

APPENDIX L – Interviewee Transcript Approval Form

TECAHER INTERVIEW TRANSCRIPT APPROVAL FORM

Interviewee Transcript Approval

Upon going through the interview transcript, kindly indicate your approval of the written transcript.

i.	Are there any corrections to be made in the interview transcript? (if yes, kindly indicate the corrections to be made in the comments box below)	YES / NO
ii.	Are there any statements in the transcript that you would like the researcher to remove? (if yes, kindly specify the statement(s) that you would like to remove in the comments box below)	YES / NO
iii.	Do you agree that the content in the transcript is accurate and consistent with what you have said during the interview?	YES / NO

Comments / Corrections

Signature of the Participant : ..... Date: .....

Name (in block capitals) : .....

THANK YOU VERY MUCH FOR YOUR COOPERATION AND PARTICIPATION