

Abstract

This study investigated the dyslexic identity, learned helplessness and coping strategies and of adolescents with dyslexia in Hong Kong. Given that 10% of the population will have from different levels of dyslexia, studies about adolescents with dyslexia are relatively scarce in Hong Kong. This study was conducted by mixed-methods, which first drew on the data from quantitative methods and then were triangulated with the data from the qualitative study. Two scales were adopted to find out the condition of dyslexic identity, learned helplessness and styles of coping of adolescents with dyslexia. This study chose students with dyslexia from 10 schools to complete the scale. After they had finished the scales, semi-structured interviews were conducted with 7 students or above from 10 schools. Through questionnaires and interviews, it was intended to find out the relationships between dyslexic identity, learned helplessness and coping strategies of them. The result of this study illustrated the phenomenon that adolescents with dyslexia are struggling to face the effect under the effect of learned helplessness which was related their learning difficulties. This study also revealed that the coping strategies of problem-focused, reference to others used by adolescents with dyslexia were significantly related to their dyslexic identity. At the same time, non-productive coping strategies were significantly related to learned helplessness, their performance, coping strategies and learned helplessness, and will attribute to their dyslexic identity. These findings corroborate current research that coping strategies and dyslexic identity are worth to investigate in further study.

Keywords: Dyslexic identity, learned helplessness, coping strategies, adolescents

Relationships between dyslexic identity, learned helplessness and coping of adolescents with dyslexia: An exploratory study in Hong Kong context.

by

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Statement of Originality

I, LUI, Tze Leung Rick, hereby declare that I am the sole author of the thesis and the material presented in this thesis is my original work except those indicated in the acknowledgement. I further declare that I have followed the University's policies and regulations on Academic Honesty, Copyright and Plagiarism in writing the thesis and no material in this thesis has been submitted for a degree in this or other universities.



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List of Abbreviations

ANOVA - One-way analysis of variance

EDB – The Education Bureau of Hong Kong

SpLD - Specific learning difficulties

SPSS - Statistical Package for Social Science Version 24.0



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Chapter 1

Introduction

Inclusive education has been implemented for almost 25 years in Hong Kong (Szeto, Cheng, & Sin, 2018). This is a lengthy movement towards inclusion focused on the notion of equity, social inclusion and a whole school approach (Forlin & Sin, 2010; Forlin, Sharma, & Loreman, 2014; Poon-McBrayer, 2014). Students with special educational needs can study in ordinary public schools. The challenges to students' development in schools have been a major research area (Forlin, & Sin, 2010; Sharma, Forlin, Loreman, & Earle, 2006). In particular, students with dyslexia have difficulties with their reading, spelling and writing, mathematics, as well as they perform significantly worse than other students on most cognitive tasks (Chan, 2002). Meanwhile, studies of dyslexia have focused on the diagnostic/identification approach (Chung & Ho, 2010), government policies and school accommodation programs (Forlin & Sin, 2017). However, a paucity of research has been conducted with the identity of adolescents with dyslexia (Humphrey, 2002). Given that adolescence is an important stage in life, a positive sense of personal identity will be developed (McInerney, 2014) together with a positive identity being established (Engel, 1959; McCullough, Huebner, & Laughlin, 2000). In contrast, studies of Arnett focused on reckless and risk behaviors of American adolescents (Arnett, 1992, 2000). Different studies seemed contradict and overlook the influence of adolescents' identity on their development of learning and behavior. Therefore, for this it was considered worthwhile to study the identity building of adolescents in the local context of Hong Kong.

Adolescents with dyslexic symptoms have experienced changes in different stages of their growth (Ingesson, 2007; Shaywitz, Fletcher, Holahan, Shneider, Marchione, Stuebing, ... & Shaywitz, 1999); this change may be related to the level of learned helplessness and coping



difficulties in a school context. Interestingly, some researchers have focused more on identity building while others have studied the relationship between learned helplessness and coping (Burden, 2005; Frydenberg, Lewis, Ardila, Cairns, & Kennedy, 2001). On the other hand, some researchers are interested in other aspects. For example, Bandura (1989, 1999) studied the value of self-affirmation of the “social cognitive model” and Marsh and Shavelson (1985) focused on adolescents’ academic self-concept. Thus, the purpose of this study focused on the identity of adolescents with dyslexia in relation to learned helplessness and coping strategies.

1.1 Contextual development of Specific Learning Difficulties in Hong Kong

This section is intended to outline the contextual development of Specific Learning Difficulties (SpLD) in Hong Kong. Supporting students with dyslexia is one of the most important tasks of inclusive education in Hong Kong. Guidelines and practical samples have been highlighted elsewhere within “Operation Guide on the Whole School Approach to Integrated Education” (EDB, 2014). As the ratio of students with dyslexia is one out of ten students, supporting dyslexic students is one of the most popular issues of inclusive education in Hong Kong (Chan, Ho, Tsang, Lee, & Chung, 2007). Especially, Hong Kong is not a major English-speaking but a Chinese-speaking city instead, therefore, researchers, teachers and parents have been seeking to identify and help Chinese children with dyslexia (Chan, 2002). Moreover, appropriate accommodation and training in school settings are essential to dyslexic students, therefore, it is useful to compensate their specific difficulties in reading and achieve satisfactory attainment in school settings (Lam, McBride-Chang, Lam, Wong, Chow, & Doo, 2008).

In recent years, there have been different stages of development for supporting dyslexic students in Hong Kong. According to Chan (2008), there were four major breakthroughs in the early stage during 1997 to 2007. They were: 1) legal enforcement and official recognition; 2) early identification and intervention; 3) educational enhancement; and 4) the Specific Learning Disabilities Summit held in Hong Kong during 2007. Equally important, within these ten years, there was a notable progress in research about the characteristics of dyslexic children and the development of assessment instruments for psychologists and teachers (Chan, 2002; Chung, & Ho, 2010). The main focus of this stage was the identification and assessment; intervention program and curriculum accommodation was developed in the next stage.

After the implementation of identification and assessment in the early stage, another focus was spotted on the intervention program and curriculum accommodation. Students with dyslexia have different patterns of difficulties in relation to reading and writing that restrict their literacy development and discrepancies in academic performance in school settings (Chan, 2008). Thus, the Education Bureau of Hong Kong (EDB) developed some teaching strategies and resource packages in order to support classroom teaching in the second stage during 2003 to 2009. They were Fun with Read and Write 讀寫樂 (2002), Guide on Helping Secondary School Students with SpLD 跨越障礙：如何輔導有讀寫困難的中學生 (2009) and Fun with Mathematics 數之樂 (2010). Those teaching resources were delivered with the three-tier model of the Whole School Approach (EDB, 2014; Luk & Cheng, 2009) which responded to the voices of teachers and parents.

A School Networking Programme: Reading and Writing Strategies 讀寫策略發展網絡計劃 was funded by the Quality Education Fund of the Education Bureau during 2008 to 2012. This project aimed at providing quality teaching resources and improving teachers' skills of catering

dyslexic students in classrooms (Sin, 2008). School network and teaching resources were developed under the university-school partnership program of The Hong Kong Institute of Education (now The Education University of Hong Kong); it facilitated professional discussion and the sharing of pedagogical initiatives among teachers within the network (Ho, 2008). Most of the chapters of the three resources books were provided by school teachers from the network; they were mainly primary schools teachers.

In addition, The Hong Kong Jockey Club launched a "Read & Write" project (喜閱寫意) during 2006 to 2015. This project comprised of research and the development of assessment tools and teacher training of primary and secondary schools in Hong Kong. This project also provided school and district-based support and development of learning packages for students with dyslexia (data from website: www.fed.cuhk.edu.hk/~jcrw/index.html). This project served 303,300 primary school students and 14,370 secondary school students. In addition, about 5,000 primary school teachers were trained under the project. Hence, this project equipped teachers with more insights and knowledge in supporting and understanding students with dyslexia. The "Read & Write" project also made dyslexic students more confident to deal with their learning difficulties (Chan, 2008).

In sum, policy-making, legal enforcement, identification and assessment of dyslexia has been well-developed in the past twenty years, as well as related research studies were conducted during this time (Chan, 2008). However, teaching resources and supporting networks were set up for students with dyslexia at the primary school level; there were only a few resources and studies related to adolescents at this time (Chung, Lo, Ho, Xiao, & Chan, 2014). It was a hard time for adolescents with dyslexia studying in secondary schools with limited support teaching aids, therefore, teachers and parents were unlikely to seek for help. There is no comprehensive support

for adolescents nowadays. Perhaps, secondary school teachers focus more on academic achievement than the curriculum for learners in Hong Kong (Chao, Sze, Chow, Forlin, & Ho, 2017). On the other hand, studies on adolescents with dyslexia and supporting programs for them are popular topics for research in other parts of the world.

1.2 Theoretical framework

The purpose of this study was to explore the relationship between dyslexic identity, learned helplessness and the coping of adolescents. Literature on dyslexic identity, learned helplessness and coping provided a theoretical framework for understanding the issues related to adolescents with dyslexia. Dyslexic people struggle with their learning difficulties throughout their life, especially related to their reading, writing and calculating skills (APA, 2013a). In fact, reading ability has played an important role to the formation of the feeling of learned helplessness, since the studies of Dweck and colleagues (1980, 1988) and Burden (2008a) already pointed out their relationships towards these concepts. On the other hand, adolescents with dyslexia cope with their learning difficulties that will affect their building of identity either to be positive or negative (Burden, 2005; Caskey, Innes, & Lovell, 2018). Thus, this study intended to find out the interrelationship of dyslexic identity, learned helplessness and coping strategies for adolescents with dyslexia in the school context.

Researchers have found that dyslexic students are at risk of learned helplessness, disruptive behavior problems and social withdrawal (Firth, Greaves, & Frydenberg, 2010). Especially children who have experienced multiple failures perceive uncontrollability and unpredictability of their work and performance, thus, they have developed a negative feeling of learning (Smallheer,



2011). However, this feeling generates a negative inclination to identity. Given that dyslexic people can interpret dyslexia as problematic and troublesome, they are inclined not to disclose their dyslexic identity to their peers (Evans, 2015). Hence, the formation of identity is closely related to how one perceives himself or herself (Marsh & Shavelson, 1985) and how they evaluate the world (Oyserman & Markus, 1996). The relationship between dyslexic identity and learned helplessness is relatively closed in some ways, and how they interact with each other is worthwhile to explore.

On other hand, coping programs have mediated between adolescents' well-being and stressors, and also facilitated the development of their coping skills to stressors (Frydenberg & Lewis, 1999). Moreover, some studies have found that intervention programs of coping were useful and feasible to students with or without dyslexia, participants reported benefits from intervention programs in some ways of coping (Cunningham, Brandon, & Frydenberg, 2002; Firth, Frydenberg, & Bond, 2012; Frydenberg & Lewis, 1999). One study found that the use of adaptive coping strategies showed a positive association between senses of capabilities with positive emotional experiences. This model also demonstrated the connection of productive coping style with enhanced self-efficacy and positive emotions (Andrews, Ainley, & Frydenberg, 2004). However, there have been few studies on the relationship between dyslexic identity and coping (Burden, 2008a; Humphrey, 2002).

Based on the previously mentioned viewpoints, they can provide a theoretical lens to explore adolescents with dyslexia and how they face their learning difficulties. Thus, such a framework motivated this study to find out the inter-relationship of dyslexic identity, learned helplessness and coping of adolescents with dyslexia in Hong Kong secondary schools. It was hypothesized that the dyslexic identity of adolescents with dyslexia reported strongly negative effects under the impact

of learned helplessness on their learning. Furthermore, it was hypothesized that there would be a positive relationship between dyslexic identity and coping strategies. The relationship between them is shown in Figure 1.

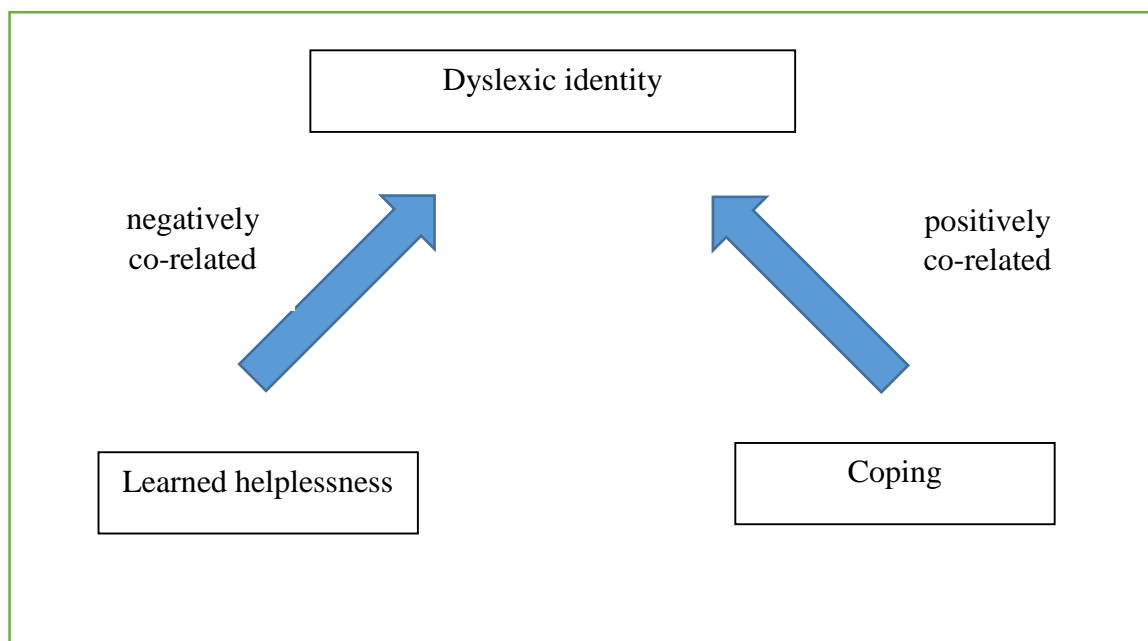


Figure 1. Theoretical framework of this study.

1.2.1 Hypotheses of this study

Hypothesis 1: Learned helplessness is negatively correlated to dyslexic identity of adolescents with dyslexia in Hong Kong school contexts.

Hypothesis 2: Coping is positively correlated to dyslexic identity of adolescents with dyslexia in Hong Kong school contexts.

The independent variables of this study was coping, and the dependent variable were dyslexic identity and learned helplessness.

1.3 Research questions

1. What is the dyslexic identity of adolescents with dyslexia in Hong Kong school contexts?
2. What is the relationship between dyslexic identity, learned helplessness and coping of adolescents with dyslexia in Hong Kong school contexts?
3. In what way, dyslexic identity, learned helplessness and coping related to the development of adolescents with dyslexia in Hong Kong school contexts?

1.4 The significance of the studies

Identity or self-concept has been a popular topic of research over the past few decades among East and West (Wang & Li, 2003), but such studies closely investigating the identity of adolescents with dyslexia are limited (Burden, 2005). Furthermore, there has been relatively little research on dyslexia in Chinese contexts (Chung & Ho, 2010). Recently, some studies have focused on reading ability (Chik, Ho, Yeung, Wong, Chan, Chung, & Lo, 2012), literacy performance (Chung, Ho, Chan, Tsang, & Lee, 2011) and syntactic awareness (Chung, Ho, Chan, Tsang, & Lee, 2013; Chung, Lo, Ho, Xiao, & Chan, 2014) of students in Hong Kong primary schools, as well as a study that focused on the role of lexical knowledge of secondary school students (Leong & Ho, 2008). However, there are few studies that have examined the relationship between adolescents with dyslexia and their identity (Evans, 2015). Hence, this study intended to fill this gap of local research studies and find out about the relationship between learned helplessness, coping and the identity of adolescents with dyslexia.



Furthermore, with reference to the theory of learned helplessness (Seligman, 1975), when adolescents with dyslexia face repeated failure, they will realize their limitation(s), or even give up trying and honestly admit failure. Different studies have pointed out that dyslexic students believed that they cannot go beyond such barriers but were the fetters of their own obstacles (Alexander-Passe, 2006; Diener & Dweck, 1978). When the number of failures increases, learned helplessness will become increasingly evident or may even affect mood (Nalavany, Carawan, & Rennick, 2011; Sun, Li, Buys, & Storch, 2015; Waschbusch, Sellers, LeBlanc, & Kelley, 2003). As failure is non-contingent and unavoidable, based on the theory of achievement-based helplessness (Licht & Dweck, 1984), the performance of them will deteriorate, although they are motivated to succeed, and have the ability to do so (Dweck & Reppucci, 1973). In the case of adolescents with dyslexia, how they react to their surroundings of learned helplessness was considered to be an interesting point for study.

On the other hand, adolescence is a crucial time in the development of individuals, so it is important to learn more about coping among adolescents (Thuen & Bru, 2004). Given that coping patterns will be established at the stage of adolescence, students with dyslexia prefer to use cognitive avoidance rather than to confront their academic or social problems (Firth, Greaves, & Frydenberg, 2010). Coping means how one manages stress; and it comprises cognitive and behavioral strategies that are used in daily life (Frydenberg, 2008; Frydenberg, Deans, & Liang, 2014; Seiffge-Krenke, 2011). Students with dyslexia have significantly shown a coping style that focuses less on the problem than their peers' (Frydenberg & Lewis, 1999). Therefore, inappropriate coping strategies and the effects of non-coping by adolescents with dyslexia should not be underestimated (Alexander-Passe, 2006). Thus, it is important to find out about coping strategies among adolescents with dyslexia by which they confront continuous failure. Eventually,

dyslexic students develop adaptive coping strategies that can overcome the more challenging environment of their school. Meanwhile, students who develop maladaptive coping strategies may further exacerbate negative effects throughout the rest of their lives (Firth, Frydenberg, Steeg, & Bond, 2013).

In short, adolescents with dyslexia may be affected by their underlying learning deficit, which will make them prone to the repetition of failure. Their identity will deteriorate due to learned helplessness and their motivation of learning diminishes. Conversely, adolescents with dyslexia can cope with their deficits in some cases. This study aimed to explore the relationship between dyslexic identity, learned helplessness and coping, especially as it intended to fill the gap of limited research on adolescents with dyslexia. Especially, recommendations derived this study will inform teachers who can develop programs for adolescents with dyslexia to build up positive dyslexic identity and overcome learned helplessness.

1.5 The structure of the thesis

This thesis is divided into five chapters. The first chapter is the introduction, including the contextual development of SpLD in Hong Kong, theoretical framework, hypotheses, research questions and the significance of the study. The second chapter is the literature review which reviewed published articles on the topics of dyslexia and dyslexic identity, learned helplessness and coping strategies, as this study investigated the relationship between dyslexic identity, learned helplessness and coping of adolescents with dyslexia of Hong Kong secondary schools. Different studies related to dyslexic identity, learned helplessness and coping were concisely reviewed.



The third chapter is methodology. This study adopted a mixed-methods research design; quantitative and qualitative data were used to analyze the relationship between dyslexic identity, learned helplessness and the coping of adolescents with dyslexia. Research questions, school environment, recruitment procedure and measures are discussed. The fourth chapter presents the test results and data analyses in relation to the research questions. The fifth chapter is the discussion and conclusions of this study. Limitations of this study are discussed. Moreover, some future research directions are explored. Finally, the appendices include a full copy of the questionnaire and interview protocol used for students, as well as the consent letter given to the principals and participants.



Chapter 2

Literature Review

2.1 Introduction

This section investigates how adolescents with dyslexia face their challenges in the literature. The first part is about dyslexia and dyslexic identity. It summarizes the definitions of dyslexia over the years and scholars' work on how the deficits of cognitive-skills affect students with dyslexia. This part also reviews adolescence and identity; and looks at models of identity effects of changes of identity during this period. The second part is about learned helplessness; it delineates the relationship between dyslexia and learned helplessness and how repeated failure affects the learning of people with dyslexia. The third section is about coping, and outlines the theories of coping and coping strategies of adolescents.

2.2 Dyslexia

The term 'dyslexia' or 'dyslexic' refers to people or students who have specific learning difficulties (SpLD). Researchers in the United States have tended to identify diagnosed students as having a 'Learning Disability' (Burden, 2008a). The term "learning disability", therefore, is much more general than dyslexia (Lyon, Shaywitz, & Shaywitz, 2003). In the United Kingdom, this term includes not only people who were diagnosed as being dyslexic, but also those who have other learning difficulties (Riddick, Sterling, Farmer, & Morgan, 1999). However, the term "learning disability" relates to other comorbid learning disabling disorders, such as attention deficit disorder, which could be more influential to the diagnosis than just dyslexia (Burden, 2008a).

According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), a “specific learning disorder is a developmental disorder that begins by school-age, although it may not be recognized until later. It involves ongoing problems learning key academic skills, including reading, writing and math” (APA, 2013a). This was in line with DSM-IV that considered a specific learning disorder to be a type of Neurodevelopmental Disorder that hinders the learning ability or academic skills which are the foundation for other academic learning (APA, 2013b).

In the past few decades, most research studies of dyslexia have been concerned about assessment and intervention for children in Hong Kong. However, there is relatively little research about Chinese adolescents with dyslexia related to cognitive skills (Chung et al., 2010; Chung et al., 2013) and how dyslexic people have coped with their difficulties (Alexander-Passe, 2006). It has been generally known that dyslexia is a lifelong difficulty characterized by difficulties in the development of literacy- and language-related skills; it leads to a lifetime of underachievement and frustration, as identification and intervention are not provided to people with dyslexia appropriately and quickly during their early stage of life (Chung & Ho, 2010). Additionally, recent studies have pointed out that adolescents with dyslexia face four cognitive-language-related deficits that contribute to reading failure: syntactic awareness, morphological awareness, vocabulary knowledge and working memory (Chung et al., 2013).

Furthermore, cognitive deficits seem to be a persistent problem when dyslexic children grow up. Previous studies have already found that dyslexic Chinese adolescents have an impairment in one or more of the domains of visual orthographic knowledge, morphological awareness, phonological awareness, rapid naming and verbal short-term memory and that these deficits will contribute significantly to reading and spelling failures in Chinese (Chung et al., 2010). Cognitive deficits directly related to the syntactic and discourse skills of dyslexic readers, especially non-

alphabetic speakers such as Chinese-speaking readers, and such populations have remained even less explored (Chung et al., 2014). In fact, Chinese is an interesting language that is different from English, in terms of the features of syntax and morphological (Chung et al., 2013). Therefore, the impact of cognitive-linguistic skills with Chinese speaking adolescents with dyslexia warranted further investigation.

Moreover, a negative interaction between expressive vocabulary and verbal working memory has been found; these deficits remain prominent in adolescence and affect the performance of oral reading fluency of adolescents with dyslexia (Rose & Rouhani, 2012). Like discourse skills are highly related to Chinese reading comprehension ability (Chik et al., 2012), reading comprehension ability has been found to be closely associated with poor working memory (Carretti, Re, & Arfè, 2013). Chung and his colleagues have already pointed out that discourse skills, as well as syntactic skills, morphological skills, rapid naming, and working memory are extremely critical to word reading and reading comprehension abilities of dyslexic readers (Chung et al., 2014). Furthermore, discourse skills of adolescents with dyslexia, children of senior grades, contain the text-level reading-related skill of morphosyntax and skills that follow the semantic traces between sentences (Chik et al., 2012). Weakness in discourse skills have been found to particularly contribute to difficulties with reading (Chung et al., 2014) and asking students with dyslexia to read aloud in class is not rare in normal classroom settings, therefore, there may be negative effects on them or even publicly humiliating them through practices exposing their difficulties (Glazzard & Dale, 2013). In other words, negative effects on the identity of adolescents with dyslexia have been found, and are likely to reinforce a sense of failure.

2.3 Dyslexic identity

This section introduces the identity of adolescents with dyslexia. The argument then develops in order to discuss the theory of identity.

The term “identity” is defined as a mixture of personal characteristics, feelings, values, intentions, and images of individuals (Rosenberg & Gara, 1985), and the product of situations and the shape of behavior in certain situations (Oyserman, Elmore, & Smith, 2012). Meanwhile, identity and self-concept are considered as nested elements; researchers have often adopted the terms identity and self-concept as if they are synonymous (Erikson, 1951, 1968; Swann & Bosson, 2010).

The relationship of identity and self-concept are that different parts of identities are made up from one’s self-concept, and one’s overall self is organized into multiple parts of identities tied to different aspects of social structures (Stets & Burke, 2003). The term “self-concept” is defined as a person’s perception of himself or herself (Marsh & Shavelson, 1985); it also includes attitudes and evaluative judgments of the world (Oyserman & Markus, 1996). However, Deaux (1992) explained the difference between identity and self-concept, and that European scholars have been inclined to use the term identity rather than self-concept. However, American researchers adopted the term self-concept and vice versa, which made the distinction between the two terms somewhat equivocal. Thus, self and identity are interchangeable, in which, self-concepts are embedded within the self, and identities embedded within self-concepts (Oyserman, Elmore, & Smith, 2012). This study used the two terms in an interchangeable manner.

There has been a number of research studies conducted about self-concept throughout the past century. One researcher, William James, was considered to be the first person to talk about

self-concept (Hattie, 1992) and the father of the psychological study of self-concept (Marsh, Xu, & Martin, 2012). Self-aspect has been considered to be the initial conceptualization of “self” (Oyserman, Elmore, & Smith, 2012). As there has been no consensus among psychologists or sociologists regarding the definition of self-concept (Street & Isaacs, 1998), terminology confusion has existed regarding the use of self-concept-related terms (Bakadorova, 2015). Some researchers’ definition of “self-concept” has been descriptive and such a definition referring to descriptive information about oneself as appearance or outlook (McInerney & McInerney, 2010); however, “self-esteem” as the evaluative element of a self-concept structure has been considered by researchers as a more subjectively perceived self (Street & Isaacs, 1998) or judgement of self (Bakadorova, 2015).

In the 1960s, models of self-concept were unidimensional in nature. These models tended to postulate self-concept as a unitary construct to evaluate oneself (Wilgenbusch & Merrell, 1999). Meanwhile, most research reported on the relationship between self-concept and school achievement measuring a wide range of perceptions at that time (Chapman, 1988). However, there was a consensus that individuals had high competence in some areas (e.g., athletes) and low competence in other areas (e.g., academics) (Elbaum & Vaughn, 2001). Therefore, Marsh and his colleagues introduced the model of multidimensional and hierarchical self-concept in 1976 (Marsh et al., 2012). This model supported academic and non-academic self-perceptions representing relatively independent elements (Elbaum & Vaughn, 2001). In short, unidimensional self-concept was contended to be a sum total of an individual’s self-appraisal in certain contexts, like school, family and social networks; on the other hand, multidimensional self-concept was assessed as an individual making important evaluative distinctions about competency in different domains of life (Chan, 1997).

Owing to the multidimensional view of self-concept, academic and non-academic performances can be assessed through different kinds of instruments. However, if the multidimensional tool is measuring an adolescent with dyslexia, it is predictable that such individuals will have a lower academic self-concept than those who are not dyslexic (Burden, 2008a). Rosenberg (1986) proposed that one's general feelings of worth considered a person's self-appraisal, and this feeling of oneself was better to assess one who was satisfied with one's life (Chan, 1997). Moreover, there have been two comprehensive meta-analytic reviews conducted by Chapman (1988) and Zeleke (2004). Chapman examined studies from 1974 to 1986 and Zeleke continued Chapman's study to 2004. They reviewed more than 60 studies about the academic self-concept of dyslexic children who profoundly viewed themselves more negatively in their academic self-concept than their average achieving peers. Zeleke preferred the different aspects of self-concept needed to be analyzed from a global perspective (Burden, 2008a). Additionally, due to the perplexing and disputable findings of the global self-concept and academic self-concept, they can be applied to adopt global self-concept and predict the performance of adolescents who have dyslexia (Kloomok & Cosden, 1994).

Moreover, when adolescents develop physically and intellectually, their competence and well-being can be shaped by comparing themselves with others (Burden, 2008a). Indeed, adolescence is a transitional period that will have an influence on dyslexic youth and poor school achievement (Eissa, 2010). Conversely, most adolescents develop a positive sense of personal identity and manage to form adaptive peer relationships and, at the same time, maintain close relationships with their families who do not have dyslexia or poor school experience (Hood, Bradley, & Ferguson, 2017; McInerney & McInerney, 2010). Furthermore, based on a longitudinal study (Chapman, Lambourne, & Silva, 1990), people with dyslexia can be very vulnerable to



underachievement, and it is possible for them to have secondary symptoms of dyslexia such as lower self-esteem, greater anxiety, lack of confidence, frustration and insecurity (Novita, 2016; Stampoltzis & Polychronopoulou, 2009).

When the identity of dyslexic students is related to their reading ability and compared to other students without dyslexia, children with dyslexia have been found to consider themselves as unintelligent and be a poor reader. However, dyslexic students with good reading ability perceived themselves as intelligent (Humphrey & Mullins, 2002). Moreover, dyslexic students have rated themselves as less competent in their scholastic abilities than their peers without dyslexia, but they did not think themselves to be less competent on global self-worth or some of the nonacademic domains (Kloomok & Cosden, 1994). In fact, children or adolescents with dyslexia have shown their real difficulty, but their difficulty in reading was not treated as an invisible handicap (Scott, Scherman, & Phillips, 1992). Therefore, dyslexic students have rated their own competencies more negatively than their peers did and, sadly, their teachers did not rate them as performing less adequately than others did (Kloomok & Cosden, 1994). Unsurprisingly, they inclined to think themselves as having lower intelligence than their peers did (Humphrey & Mullins, 2002).

In sum, there is no absolute value of dyslexic identity for adolescents with dyslexia. Their positive or negative dyslexic identity is based on their perception of the environment; it may be explained by the multidimensional view of self-concept previously mentioned. Their competence of academic achievement or physical performance will have an effect on the building of identity from time-to-time. The rationale of positive or negative identity may be related to learned helplessness or the coping of adolescents with dyslexia. This will be discussed in the following sections.

2.4 Learned Helplessness

The term “learned helplessness” was first introduced by Seligman and Maier (1967) as dogs that were exposed to an inescapable shock and found to give up the chance to escape during the shocks that they experienced. Early studies have reported that when an organism experiences uncontrollable events, three deficits: cognitive, motivational, and behavioral will occur across a wide variety of subjects (Hiroto & Seligman, 1975; Seligman & Maier, 1967). Hiroto (1974) first conducted an experiment on humans and demonstrated that helplessness could be experimentally induced and was wholly parallel to helplessness experienced by animals. With the data and observations of Seligman and colleagues, they developed the theory of “learned helplessness”.

As the theory of learned helplessness was reformulated during 1978, based on the revision of attribution theory, learned helplessness can be divided into three types related to the cause of being stable or unstable, global or specific, and internal or external (Abramson, Seligman, & Teasdale, 1978). Stable attribution means that the cause of a negative event is permanent and constant, whereas, an unstable attribution means the event is temporary; global attribution discloses negative events which are pervasive, whereas a specific attribution explains that events are circumscribed and limited; internal attribution manifests the cause coming from self, while an external attribution unfolds the cause by factors outside self (Joiner & Wagner, 1995).

The theory of learned helplessness is used to describe a person who has a maladaptive response to uncontrollable stress; and who is impaired to escape responses and has reduced motivation and learning deficits (Salomons, Moayedi, Weissman-Fogel, Goldberg, Freeman, Tenenbaum, & Davis, 2012). Similarly, children who continually experience failure may believe that they cannot change their future outcomes (Walling & Martinek, 1995). After children have experienced multiple failures, frustration develops which can be related to perceived

uncontrollability and unpredictability of the experienced outcome and, thus, further learning of means to affect a change is impaired (Smallheer, 2011).

Learned helplessness may arise from the result of reading failure; it will affect the performance of cognitive tasks and influence motivational spinoffs of reading failure, eventually leading to increasingly global performance deficits (Humphrey & Mullins, 2002). This negative feeling of reading relate to their own perceived inadequacies, which are generated from the fact that they feel they are not in control of their success in relation to learning (Glazzard, 2010). Some points concluded from different studies of learned helplessness, such as repeated failure, have made children learn to believe that failure is insurmountable; children generalized failure experiences to other situations and attributed failure to uncontrollable factors; uncontrollable factors let them believe they have no control over their actions and especially over the consequences of their actions (Diener & Dweck, 1978; Dweck, Goetz, & Strauss, 1980). Perhaps it is the origin of the negative effect of learned helplessness. Whether or not reading failure happened, the negative feelings will have increased.

Children with dyslexia appear to have impotence of defending failure; they are also likely to have further damaged their self-concept and self-esteem (Humphrey & Mullins, 2002). In school settings, students often experience success and/or failure from time-to-time; dyslexic students have characteristics evolving from multiplicative failure experiences in school (Reynolds & Miller, 1989). In fact, many classrooms have been described as being failure-oriented and that students often struggle to avoid failure rather than strive for success (Covington & Omelich, 1979; Heyder & Brunner, 2018; Hood et al., 2017), and some dyslexic students have even mentioned school as being a place of bullying (Glazzard, 2010). As poor learning experience or school experience are closely related to learned helplessness, it is a crucial issue to eliminate those experiences.

Based on the studies of learned helplessness in the past few decades, there is no doubt that adolescents with dyslexia struggle with their failure from time-to-time. Coping seems to be one of their ways out; how adolescents with dyslexia cope with their deficits will further be investigated in the next section.

2.5 Coping

Early research studies were concerned about the antecedents of coping, ways of coping to stressful events, and the experience of coping and relative contributions of personality characteristics (Frydenberg, 2014). Among them, the most frequently cited theory of coping is transactional theory of coping by Richard Lazarus and Susan Folkman (Frydenberg & Lewis, 2004), which is a person's ongoing cognitive and behavioral efforts to manage external and/or internal demands that are appraised as taxing or overwhelming (Lazarus, 1993; Lazarus & Folkman, 1984). This theory also mentioned that coping is a transaction between the person and the environment, and a dynamic process that changes from time-to-time when it responds to demands, following appraisals, both objective and subjective (Frydenberg, 2014).

Transactional theory of coping focused on how individuals interacted with environments, and has generally categorized coping into being problem-focused and emotion-focused. Lazarus mentioned that coping or action could serve many functions in reality, not only problem-focused and emotion-focused (Lazarus, 1996), and not infer judgment about people's coping actions (Frydenberg & Lewis, 2004). Besides, Lazarus clearly affirmed that treating problem-focused and emotion-focused coping as two distinctive types of coping actions will lead to an over-simplified conception of the way coping works (Lazarus, 1996). Folkman acknowledged that although the

transactional theory of coping model has prevailed over the years, it has not been free of problems and limitations (Folkman, 2010). Additionally, Folkman and Moskowitz (2000) designated meaning focused coping as the third function of coping as being distinct from problem and emotion-focused.

On the other hand, a multidimensional interactive model sought to explore complex relationships among personality, anxiety, stress, and coping by Endler and Parker (1990). In this model, situational/environmental and behavioral factors were concerned with how one personality focused on cognitive, motivational, physiological, and content-based variables (Livneh & Martz, 2007). In response to the weaknesses of many widely used coping measures, Endler and Parker (1990) attempted to develop a reliable and valid multidimensional measure of basic coping styles in the 1990s. Other than problem-focused and emotion-focused, Endler and Parker suggested “avoidance” as the third basic strategy of coping; avoidance can include either person-oriented or task-oriented strategies and individuals avoided a particularly stressful condition by seeking support from other people or being caught by another task rather than the task at hand (Endler & Parker, 1990). Their multidimensional model focused on cognitive, motivational, physiological, and content-based variables, and those variables would affect the processing of information and pay attention to personal traits and state anxiety (Livneh & Martz, 2007).

In addition, some researchers of coping emphasized the importance of personal traits and some considered situational factors, consequently two approaches: interindividual and intraindividual approaches to coping which were discussed in the late 1990s. The interindividual approach attempted to find out about basic coping styles: coping strategies of individuals during stressful situations; meanwhile, the intraindividual approach tried to identify basic coping behaviors or strategies of individuals during stressful or upsetting situations (Parker & Endler,

1996). Hence, a multiaxial model of coping from Hobfoll was developed in order to explore communal aspects of coping. This model moves beyond an individualistic perspective and attempts to assess coping within a more balanced context that allows for an understanding of both individualistic and communal orientation (Dunahoo, Hobfoll, Monnier, Hulsizer, & Johnson, 1998). This model also balanced individualistic and collectivist notions of coping, and successfully predicted coping outcomes under stressful conditions (Monnier, Hobfoll, Dunahoo, Hulsizer, & Johnson, 1998).

In line with the limited research on coping strategies of dyslexia, some studies have pointed out dyslexic students are at risk of responding to their difficulties in non-productive ways; for example, giving up, avoiding the problem, school dropout, juvenile delinquency, social isolation and depression (Firth, Frydenberg, & Bond, 2012). Researchers have also found that dyslexic students are at risk of learned helplessness, disruptive behavior problems and social withdrawal (Firth, Frydenberg, & Greaves, 2010). It appears that models of coping are not suitable for dyslexic people. Yet, from a recent study of Dutch children with dyslexia, it revealed that the variation of coping strategies and discrepancy between performance and standards were closely related to age stratification and social support from family, teachers and peers (Singer, 2008). It was worthwhile finding out how adolescents with dyslexia cope with their difficulties, and yet, how the effect of learned helplessness was being mediated.

This review of the literature provided an integrated picture of how adolescents with dyslexia face their problems and difficulties. This study aimed to explore the correlations between dyslexic identity, learned helplessness and coping on adolescents with dyslexia in Hong Kong school contexts. People with learned helplessness accompanied with maladaptive responses to uncontrollable stress are often impaired to be able to escape from learning deficits (Salomons,



Moayed, Weissman-Fogel, Goldberg, Freeman, Tenenbaum, & Davis, 2012). Meanwhile, poor learning experiences result from learned helplessness, and a connection between a view of dyslexia and identity with self-esteem is ineluctable (Burns & Bell, 2011). Furthermore, studies of coping strategies have already discussed their effectiveness on students with social and emotional needs (Huxley, Freeman, & Frydenberg, 2007); and students who reported changes in coping training indicated a significant reduction in the use of non-productive coping (Hawkins, McKenzie, & Frydenberg, 2006). Therefore, there were two hypotheses of this study. Firstly, learned helplessness is negatively correlated to the dyslexic identity of adolescents with dyslexia in Hong Kong school contexts. Secondly, coping is positively correlated to the dyslexic identity of adolescents with dyslexia in Hong Kong school contexts. In addition, the independent variables of this study was coping and the dependent variable were dyslexic identity and learned helplessness.

Accordingly, three research questions were raised to address the hypotheses:

1. What is the dyslexic identity of adolescents with dyslexia in Hong Kong school contexts?
2. What is the relationship between dyslexic identity, learned helplessness and coping of adolescents with dyslexia in Hong Kong school contexts?
3. In what way, dyslexic identity, learned helplessness and coping related to the development of adolescents with dyslexia in Hong Kong school contexts?

Chapter 3

Methodology

3.1 Introduction

The purpose of this study was to find out the relationship between dyslexic identity, learned helplessness and coping. This study adopted a mixed-methods research design to explore the data of adolescents with dyslexia by using two scales for the quantitative study and interviewing six adolescents for the qualitative study (Creswell & Plano Clark, 2007). “When qualitative researchers locate evidence to document a code or theme in different sources of data, they are triangulating information and providing validity to their findings” (Creswell, 2013, p. 251), data from quantitative study and qualitative study would act as a triangulation process. This chapter reports the methodologies employed in the study and outlines the research design and reasons for the choice of research.

Different types of mixed-methods research designs have their strengths and weaknesses, thus, quantitative and qualitative methods can compensate and complement each other and allow for a more vigorous analysis, and beneficial to each other (Green & Caracelli, 1997; Ivankova, Creswell, & Stick, 2006; Tashakkori, & Teddlie, 1998). There are two options for implementation of the data collection, namely concurrently and sequentially. Concurrently, mixed designs gather data at the same time and the researcher will seek to compare data and try to analyze both the quantitative and qualitative data (Creswell, Plano Clark, Gutmann, & Hanson, 2003). Sequentially mixed designs collect and analyze the quantitative data first; the qualitative data will be collected and analyzed subsequently in the sequence and help to explain and elaborate the data obtained from



the first phase (Ivankova et al., 2006). Hence, this study was conducted by using a sequentially mixed design, which was intended to gather data in different time phases for deeper data analysis.

Apart from the types of designs, Creswell has identified three main mixed-methods research designs: explanatory mixed-methods design, exploratory mixed methods design and triangulation mixed methods design (Creswell, 2005). The explanatory mixed-methods design is the most common approach that provides a main focus of the results from the quantitative data and qualitative data used to elaborate or explain the findings from the quantitative data (Mertler & Charles, 2005). The exploratory mixed-methods design is heavily focused on the qualitative data collected first in order to provide an outline to the research (McMillan, 2004). Next, quantitative data are collected to find out the phenomenon or identified theme of the qualitative results (Mertler & Charles, 2005). The triangulation mixed-methods design collects quantitative and qualitative data at the same time; the researcher is able to value two forms of data and analyze them simultaneously (Creswell, 2005). Both forms of results can subsequently be compared which converge the results (Mertler & Charles, 2005). This study adapted an explanatory mixed-methods design, which was trialed to figure out the phenomenon from the questionnaires, attempting to answer the research questions from the interviews of the adolescents with dyslexia.

More specifically, the sequential explanatory design, one of the most straightforward major mixed-methods was used in this study (Creswell et al., 2003). This was due to the quantitative data and their subsequent analysis of this approach, which provided a general understanding of the research questions (Ivankova et al., 2006). Given that quantitative data were collected and analyzed before the collection of the qualitative data, this approach was particularly useful for explaining the relationships of the results of the study which were unexpected (Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005). Moreover, the qualitative data and their analyses refined

and explained the statistical results with in-depth exploring (Creswell, 2005; Rossman & Wilson, 1985; Tashakkori & Teddlie, 1998).

3.2 The school contexts

This study was conducted in school environments. The adolescents with dyslexia came from 10 mainstream secondary schools. All of the participants recruited in this study attended government-aided secondary schools in the New Territories and Kowloon regions of Hong Kong. The selection of students was purposeful as they had all been previously diagnosed with dyslexia, therefore, purposive sampling was used in order to gather the best information of what was to be studied (Cohen & Morrison, 2011; Palinkas, Horwitz, Green, Wisdom, Duan, & Hoagwood, 2015). The non-random sampling technique of purposive sampling limited this research to invite a specific type of purposeful sample to participate in this study (Johnson & Christensen, 2004).

3.3 Ethical considerations

Under the ethical guidelines of the Education University of Hong Kong, approval from the Human Research Ethics Committee needed to be obtained prior to the study starting. Information of the participants, recruitment procedures, and any potential risks or potential benefits needed to be reported during the application of the ethical review. All participation was on a voluntary basis and participants had the right to refuse to participate or withdraw at any time without negative consequences. The storage of questionnaires, data files and a record of interviews and transcripts were stored in a highly secured place that only could be accessed by the researcher. Finally, all of

the data management or processing were run on a computer with password-protection; all of the data from participants were subsequently destroyed when the research was completed.

Permission was gained from the principals of the participating schools to send consent forms and letters to the parents of all the recruited students. The consent form and letter to parents explained the objectives of the study and informed them of the format of their participation. Participation in the questionnaire and interviews were completely voluntary and participants had the right to withdraw at any time if they felt uncomfortable. A reply form was attached in the consent form and letter to parents, for ensuring their consents to participate in the study (Appendix D).

3.4 A mixed-methods research design

This study adopted a mixed-methods research design to explore the data of adolescents with dyslexia (Creswell & Plano Clark, 2007). The first stage was the quantitative part of this study. A Chinese version of the two scales was used to measure the dyslexic identity, learned helplessness, coping of the adolescents with dyslexia. The second stage was the qualitative part of this study. Six participants of two schools from the quantitative study were invited to join a semi-structured interview. The interview protocol was adopted from the instrument: ‘All about me’ (Burden, 2005).

3.4.1 The participants

One hundred and fifty students were invited to participate in the research and they aged from 12 to 14. They studied in Secondary 1 to 3 (Grades 7-9) in the quantitative part of this study. Seven out of 150 students were further invited to be interviewed in the qualitative part. All of the recruited

students were from mainstream schools and diagnosed to have an existing SpLD. Owing to reasons of privacy, all of the recruited students were recommended by the Special Educational Needs Coordinator or teacher-in-charge of Special Educational Needs matters in their school.

Table 1

Demographics information of the quantitative study

Grades	No. of students
S1	55
S2	51
S3	40
Total	146
Sex	No. of students
Male	88
Female	58
Total	146
Age	No. of students
Under 12	29
13	53
14	45
15	19
Total	146

The participants of this study were diagnosed by an Educational Psychologist as they had the characteristics of SpLD. With reference to the rule of thumb that a sample size of fewer than 100 is often stated as small, a sample size between 100 and 200 as medium, and a sample size exceeding 200 as large (Kline, 2005), a sample size of 150 subjects was considered sufficient to obtain an analysis (Guadagnoli & Velicer, 1988). For the adolescents with dyslexia who were permitted by their parents to participate in this study, a consent letter was sent to parents and participants (Appendix D).

Table 2

Demographics information of qualitative study

Grades	No. of students
S1	3
S2	2
S3	2
Total	7
Sex	No. of students
Male	7
Female	0
Total	7

Six students from two of the participating schools were invited for the interview. They were selected as they finished the captioned measures, one student of S1, S2 and S3 from the same school. In order to have a clear picture of the students' coping strategies, the interviews sought to ascertain their reactions towards facing obstacles and barriers. In fact, qualitative studies are aimed to provide an illumination and understanding of 'why' and 'how' people think about certain questions (Marshall, 1996). Therefore, it was advisable to have more participants from different ages and more information of them to draw a more comprehensive picture of them.

3.4.2 Collection of data

3.4.2.1 Quantitative data

The scales were translated into Chinese that facilitated the understanding of participants who are Chinese-speaking students. An invitation letter and consent form were sent to school principals and Special Educational Needs Coordinators of the 15 invited schools; all participants were allowed to join in this study under the authentication of parents. Questionnaires were completed under the supervision of teachers or teaching assistants; this was to make sure that all participants understood the items of the questionnaire. All completed questionnaires were then sorted and processed through Statistical Package for Social Science (SPSS) Version 24.0. One-way analysis of variance (ANOVA) was employed to find out whether there were any statistically significant differences among variables (Brown & Forsythe, 1974; Heiberger & Neuwirth, 2009; Ross & Willson, 2017). Furthermore, areas of interest would be identified from the quantitative findings for the in-depth study in the second stage of this study (Turner, Cardinal, & Burton, 2017).



3.4.2.2 The scales

As the mother tongue of the adolescents with dyslexia of this study was Chinese, the questionnaires were written in Chinese. The scales were translated into Chinese by using the usual translation-back translation method that make sense of both the original (English) and target languages (Chinese) (Chen & Boore, 2010). The two scales were combined into a 43-item self-report measure. Participants were asked to complete a demographic information sheet with questions on gender, age and grade. The 43-item scale was designed in a dyslexic-friendly format that was printed one-sided with a font size of 14 (Chen, Keong, Teh, & Chuah, 2016). Measurement tools for each of these variables are described below.

Scale 1: Dyslexic Identity Scale

Identity of the adolescents with dyslexia were measured by the Dyslexic Identity Scale (Burden, 2005), a 25-item scale assessing the sense of identity of adolescents with dyslexia which ranks on a six-point Likert scale ranging from totally agree to totally disagree. The Dyslexic Identity Scale provides three dimensions of dyslexic identity: Self-efficacy, Locus of Control and Learned Helplessness.

Rationale, validity and reliability of Dyslexic Identity Scale

The Dyslexic Identity Scale was developed by Professor Robert Burden in 2005, which was published in his book “Dyslexia and Self-Concept: Seeking a dyslexic identity”. Due to comparatively little research on how dyslexic people make sense of their difficulties and their

perceptions of themselves, instruments on assessing dyslexic identity are really rare (Burden, 2005). As Burden developed this scale from psycho-social theory, it integrated Bandura's self-efficacy model and Abramson, Seligman, and Teasdale's learned helplessness theory. This scale was designed to assess a dyslexic child/adolescent's sense of self (Armstrong & Humphrey, 2009).

Although Burden's study was relatively small in size, but it was an in-depth research on dyslexic identity. Burden attempted to explore various nature of self-concept (Burden, 2008a). This "theory-based" scale was used in an in-depth study of 50 adolescent boys of a special school for dyslexic students. As Burden described, it was conducted in an atypical educational context in which students came from a 'middle class background' with supportive parents (Burden, 2005). In Google Scholar, EBSCO and PsycINFO searches, no further study was found for using the Dyslexic Identity Scale. Probably, Burden's applied analysis of pertinent psychological theory was too argumentative and pioneering, leading to the relative scarcity of research using this approach (Armstrong & Humphrey, 2009). Yet, the Dyslexic Identity Scale can explore the sense of identity of dyslexic people; particularly, it has highlighted the psychological concepts of self-efficacy, locus of control and learned helplessness (Burden, 2005).

Scale 2: The Short Form of the Adolescent Coping Scale

The Short Form of the Adolescent Coping Scale: a brief measure of coping (Frydenberg, 2008; Frydenberg & Lewis, 1993) is an 18-item scale designed to measure adolescent coping. These 18 scales were developed based on students' responses to the 80 items on the Adolescent Coping Scale. These 80 items comprise 18 different scales that represent the different coping responses; each item describes a specific coping response, a behavior or a mindset (Frydenberg &

Lewis, 1992). This scale contains three dimensions with six items each: problem focused, reference to others and non-productive coping.

Rationale, validity and reliability of The Short Form of the Adolescent Coping Scale

Choosing a scale suitable for adolescents with dyslexia was not an easy task, due to their reading abilities and little attention was the major concern. An 18-item questionnaire has been described as useful and can primarily be used as a general screening device to adolescent coping strategies or areas of coping of relevance to respondents (Frydenberg & Lewis, 1992). As the scales were developed from the 80-items Long Form of the Adolescents Coping Scale, it provided a stable and consistent environment for application, with “moderate rather than high” test-retest reliability correlations (Frydenberg & Lewis, 1993). Additionally, a recent study of Malaysian adolescents validated the scale with alpha values of 0.605 and 0.869. The short form of the Adolescents Coping Scale was found to have “high validity” and correlated positively and significantly with the Adolescents Coping Scale General and Specific Short Form (Bullare, Ismail, Pang, & Madlan, 2015). Hence, this scale was recommended to be a general screening device or a research questionnaire, which was useful in the identification of coping strategies (Frydenberg & Lewis, 1992).

3.4.3 Collection of the qualitative data

The second stage of the study was the qualitative part. A Chinese version of the semi-structure interview protocol was used to ask for the participant’s responses. All interviews were taped and transcribed. Interpretative Phenomenological Analysis (IPA) was used to analyze the

data from the interviews; super-ordinate themes and sub-themes were identified (Biggerstaff & Thompson, 2008). As this study adopted an explanatory approach, all results from both stages were used to explain and triangulate with each other.

Interview protocol: ‘All about me’- a dyslexic adolescent

The qualitative part of this study was related to the interviews conducted with the adolescents with dyslexia. The interview protocol was adopted from: The ‘All about me’ instrument of Burden (2005). This interview protocol is an open-ended sentence-completion instrument designed by Robert Burden. It contains 24 questions with the checking of the interviewees’ responses. This interview protocol was made available to interview 50 adolescent boys in West England. Under Burden’s study (2005) of 50 adolescent boys, some significant themes emerged. Burden highlighted that the themes were “chosen to describe as their construction of their learning careers, a concept that emphasizes the notion of learning as a process rather than a set of outcomes” (p. 41). The findings of Burden that interviewees expressed they were “confused”, “always responses to significant others”, that would be used for the comparison with the findings of this study.

Validity and reliability of qualitative study

Reliability is concerned with the replicability of the results, and validity is related to the accuracy of measurement in quantitative research (Golafshani, 2003). However, early researchers realized that these criteria (reliability and validity) are not relevant to qualitative research (Smith, 1984). Obviously, it has been quite difficult to assess the reliability and validity of qualitative research during the past few decades. They have even been described as being “misleading” within

the concept of reliability (Stenbacka, 2001). Further, qualitative research has been conducted with a naturalistic approach to understand phenomena in context-specific settings (Patton, 2001), and defined as a kind of research in which findings are not arrived at by means of statistical procedures (Strauss & Corbin, 1990). As a paradigm shift, when a study is being designed, analyzing the results and the quality of the study and judging, validity and reliability are the three important factors to be concerned (Patton, 2001).

Basically, the reliability of qualitative research deals with the consistency, dependability and replicability of the results earned from the research (Nunan, 1992). Whereas validity is related to the matter of trustworthiness, utility and dependability between the researchers and informants (Zohrabi, 2013). Besides, reliability concerns measurement and whether it can produce the same research result again or not (Stenbacka, 2001). Data from qualitative approaches are in narrative form and subjective. It is inappropriate to attain the same results from a study, however, based on the data collection processes; the findings and results should be consistent and dependable (Zohrabi, 2013). According to Burns (1999), validity is essential in order to evaluate the quality and acceptability of research, and its instruments are very important as the results are based on the information gathered from them. Creswell and Miller (2000) suggested that validity is affected by the researcher's perception of validity in the study and his/her choice of paradigm assumption, and validity using the methods of non-forcing interviews require strategically well-chosen informants (Stenbacka, 2001). Apart from validity, reliability is concerned about the quality of measurement, which is considered reliable in order to have the same result over and over again (Venkatesh, Brown, & Bala, 2013). Howbeit, reliability only plays a minor role and limited meaning in qualitative research; qualitative studies are focused on validity during analyzing (Creswell & Plano Clark, 2007).

According to Lincoln and Guba (1985, 2000), three criteria for judging the trustworthiness of qualitative research are credibility, transferability and confirmability. Credibility and transferability are closed to the usage of internal and external validity in quantitative research, whereas confirmability is related to the statistical conclusion of quantitative research (Shenton, 2004). However, there are no accepted guidelines or common consent on the validity of qualitative research, therefore, researchers prefer to pay attention to the application of methods, interpretation of data, data collection, data analyses and reporting (Guba & Lincoln, 2005). Hence, Teddlie and Tashakkori (2003) introduced a term of ‘inference quality’ as an internal validity of quantitative research or the credibility of qualitative research. This is an umbrella term to refer to the final outcome of a study. Inference quality is defined as the accuracy of inductively and deductively derived conclusions in a study, applicable to interpret and conclude the collected data in different ways (Venkatesh et al., 2013). In other words, the ability of the researcher is critical in order to draw meaningful and accurate conclusions from the data collected in the study, and the conclusion(s) should be built on significant predictors from the process and product(s) of different phases (Creswell & Plano Clark, 2007).

Moreover, in this study, a ‘general interview guide approach’ was used. Questions were listed in order to be explored in the course of the conducted interviews (Patton, 2001). This approach allows interviewers the flexibility not to follow the order of the interview protocol during an interview; the interviewer can also change the wording of questions to make the interview more flexible to take precedence based on perceived prompts from the interviewees (Turner, 2010). Further, this approach facilitates the interview process and creates an atmosphere of relaxation and freedom so that interviewees can freely express themselves.

Interpretative Phenomenological Analysis (IPA) was used to analyze the data from the interviews. IPA was developed by Jonathan Smith, and allowed the researcher to have a closer look at the research participants with their social reality, in particular, conditions or particular situations (Biggerstaff & Thompson, 2008). The process of analysis was included in all of these aspects of the researcher's self-reflection, and also the participants to seek and interpret their experiences into some meaningful form (Brocki & Wearden, 2006). Given that IPA aimed to explore the participants' experiences in detail and how they made sense, it could be expressed that human research is double hermeneutic (Smith, 2004). This approach contained several stages, Stage 1: first encounter with the text; Stage 2: preliminary themes identified (super-ordinate themes); Stage 3: grouping themes together as clusters (sub-theme); and Stage 4: tabulating themes in a summary table (Biggerstaff & Thompson, 2008).

3.5 Analysis of quantitative and qualitative data

Data from the questionnaires were sorted, classified and coded into a coding sheet and analyzed by using the computerized data analysis package, Statistical Package for Social Science (SPSS) Version 24.0. Pearson *r* correlations were conducted for examining the associations and relationships among dyslexic identity, learned helplessness and coping (Cohen, Manion, & Morrison, 2011). ANOVA was employed to find out the likely statistically significant differences among variables means (Tabachnick, & Fidell, 2013). Meanwhile, all of the interviews were taped and then re-read against the original tapes. Transcripts and note taking were reviewed and analyzed by using open coding. After the process of coding, common themes were detected. Together with the quantitative and qualitative data analyses, the relationship of dyslexic identity, learned

helplessness and coping of the adolescents with dyslexia were drawn out. In certain contexts, qualitative and quantitative data were mixed to substantiate each other.

In summary, as previously mentioned, in different literature, poor academic self-concept of adolescents with dyslexia has not been represented with a poor global self-concept. In fact, the human mind is rather complex and complicated than ever imagined. However, to obtain a complete picture of behavior and experience, using more than one research method is necessary (Morse, 2003). Therefore, this study was conducted using mixed-methods research design. Quantitative data analysis was supported by the qualitative data, in order to acquire a broader and deeper understanding of the relationship of dyslexic identity, learned helplessness and coping of the adolescents with dyslexia. Questionnaire and semi-structure interview questions were the data collection instruments. Both research methods widened the scope and comprehensiveness of the study, which also assisted to interpret the data from questionnaires and interviews and provided explanations of the unexpected findings (Morse, 2003). Based on the comprehensiveness of mixed-methods research design, a deeper understanding of dyslexic adolescents' mind was expected to draw in the next chapter.



Chapter 4

Results

4.1 Introduction

People with dyslexia face with the surmountable and insurmountable barriers in all stages of their life (Burden, 2008a); coping with surroundings is also a non-stop issue among dyslexic people. The quantitative part of this study was employed in order to examine the learned helplessness among dyslexic students, described as obstacles of their life (Diener & Dweck, 1978). Dyslexic identity, a specific term coined from Burden, is related to self-efficacy, learned helplessness and depression. Coping strategies are combined with problem-focused coping, reference to others and non-productive coping by Frydenberg (Frydenberg, 2014). The relationships between dyslexic identity and coping strategies of adolescents with dyslexia were studied during the first part of this study. Under the guidelines of the mixed-methods and after analyzing the results from the questionnaire, several questions were raised in order to direct the second part of this study. The qualitative study used interviews and was conducted guided by the protocol of Burden (Burden, 2008a), as well as the questions raised from the questionnaire results.

4.2 Quantitative study

This study was administrated under the three research questions. Research Question 1 was analyzed through ANOVA in order to find the relationships between the three dimensions within dyslexic identities (self-efficacy, learned helplessness and depression). Research Question 2 and 3 involved the utilization of the Pearson correlation technique which works best with linear

relationships in order to determine the relationship between dyslexic identity, learned helplessness and coping.

Data for this research were collected through two stages. The first stage collected data from the questionnaire completed by the participating students who were referred by the Special Educational Needs Coordinators of their schools. After analyzing the questionnaire data, some issues were drawn out and a number of questions were proposed which were asked during the interviews in the second stage. Issues about self-efficacy, learned helplessness, peer relationships and coping strategies were further investigated during the individual interviews.

4.2.1 Demographic Profile of Participants

There were 146 participants who volunteered and completed the demographic information on the first page of the questionnaire. All 146 subjects, including 88 boys and 58 girls, were diagnosed as SpLD with normal IQ who studied in mainstream secondary schools in Hong Kong. For their years of study, 55, 51 and 40 of them were respectively in S1, S2 and S3. For their ages, 29, 53, 45 and 19 were respectively under 12 years old, at 13 years, 14 and 15 years old (see Table 1).

4.2.2 Results of quantitative study

The descriptive statistics derived from the data analysis of the responses to the scales by the 146 students are presented in Table 3. Scores on dyslexic identity and coping represent the sum of their subscales.

Table 3

Mean table of the variables for dyslexic identity and coping

	N	Mean	Standard Deviation	Standard Error	95% Confidence Interval for Mean
					Lower Bound
Self-efficacy	146	26.88	5.06	.42	26.05
Learned Helplessness	146	10.72	3.89	.32	10.09
Depression	146	18.84	6.51	.54	17.78
Dyslexic Identity	146	56.44	10.92	.90	54.66
Problem-focused Coping	146	24.94	5.77	.48	24.00
Reference to others	146	16.05	3.96	.33	15.40
Non-productive Coping	146	24.48	7.16	.59	23.31
Coping	146	68.17	10.45	.87	66.46

Internal consistency reliability estimates were calculated by utilizing Cronbach's alpha coefficients to test each subscale and test the weight of each domain registering consistent responses (Bonett & Wright, 2015; Streiner, 2003). In Table 4, the whole scale Cronbach Alpha Coefficients and the alpha scores specific to each subscale used in this study are presented. It was noted that the Cronbach Alpha of the whole scale was 0.812. In general, the Cronbach Alpha in all the subscales, except reference to others=0.652 were over 0.7 that is the common acceptable value (Nunnally & Bernstein, 1994). The internal consistency reliability was considered as high.

Table 4

Cronbach Alpha Coefficients of scale of quantitative study

	Cronbach's Alpha
Whole scale	.812
Self-efficacy	.720
Learned Helplessness	.779
Depression	.816
Problem-focused Coping	.748
Reference to others	.652
Non-productive Coping	.768

4.2.3 Inferential Statistics

4.2.4 One-way ANOVA

ANOVA was used for data analysis so as to examine the differences among the S1, S2 and S3 students. Significant main effects were found for the reference to others ($F(2,143) = 3.485, p < 0.033$). Other dependent variables showed no significant effects.

Table 5

One-way ANOVA among the variables for dyslexic identity and coping against year groups of the subjects

		Sum of		Mean		
		Squares	df	Square	F	Sig.
Self-efficacy	Between	75.74	2	37.87	1.492	.228
	Groups					
	Within Groups	3630.74	143	25.39		
	Total	3706.49	145			
Learned Helplessness	Between	25.14	2	12.57	.830	.438
	Groups					
	Within Groups	2166.10	143	15.145		
	Total	2191.237	145			
Depression	Between	53.252	2	26.63	.625	.537
	Groups					
	Within Groups	6090.13	143	42.59		
	Total	6143.38	145			
Problem- focused coping	Between	161.49	2	80.75	2.473	.088
	Groups					
	Within Groups	4668.96	143	32.65		
	Total	4830.45	145			

Reference to others	Between					
	Groups	105.53	2	52.76	3.485	.033
	Within Groups	2165.14	143	15.141		
	Total	2270.67	145			
Non-productive coping	Between					
	Groups	32.52	2	16.26	.314	.731
	Within Groups	7408.87	143	51.81		
	Total	7441.39	145			

4.2.5 Post Hoc Tests

Post hoc tests were run for analyzing the interactions of different grades of students. In the variable of ‘references to others’, there was significantly statistical differences among S1 students with S2 students ($M = 1.58$, $SD = .766$, $p < .039$) and with S3 students ($M = 1.93$, $SD = .811$, $p < .018$). The interaction effect can be best interpreted as a greater will to ‘reference to others’ or seeking help from others by S1 students than that exhibited by S2 and S3 students.

Table 6

Post Hoc Tests of among the variables for dyslexic identity and coping against year groups of the subjects

			95% Confidence				
			Interval				
Dependent			Mean	Std.		Lower	Upper
Variable	Grade	Grade	Difference	Error	Sig.	Bound	Bound
Self-efficacy	S1	S2	.93	.98	.346	-1.0100	2.8624
		S3	1.80	1.05	.088	-.2727	3.8668
	S2	S1	-.93	.98	.346	-2.8624	1.0100
		S3	.87	1.066	.415	-1.2328	2.9745
	S3	S1	-1.80	1.055	.088	-3.8668	.2727
		S2	-.87	1.06	.415	-2.9745	1.2328
Learned	S1	S2	.25	.766	.744	-1.2478	1.7433
Helplessness		S3	1.02	.81	.210	-.5797	2.6177
Depression	S2	S1	-.25	.766	.744	-1.7433	1.2478
		S3	.77	.82	.350	-.8536	2.3961
	S3	S1	-1.02	.81	.210	-2.6177	.5797
		S2	-.77	.82	.350	-2.3961	.8536
	S1	S2	.84	1.27	.509	-1.6681	3.3472
		S3	1.50	1.36	.272	-1.1852	4.1761
	S2	S1	-.84	1.277	.509	-3.3472	1.6681

Problem-focused coping	S3	S3	.66	1.388	.635	-2.0686	3.3804
		S1	-1.50	1.366	.272	-4.1761	1.1852
		S2	-.66	1.388	.635	-3.3804	2.0686
	S1	S2	2.20	1.11	.050	-.0028	4.3885
		S3	2.14	1.199	.073	-.2062	4.4880
	S2	S1	-2.20	1.11	.050	-4.3885	.0028
		S3	-.05	1.211	.966	-2.4375	2.3336
	S3	S1	-2.14	1.199	.073	-4.4880	.2062
		S2	.051	1.211	.966	-2.3336	2.4375
Reference to others	S1	S2	1.58	.766	.039**	.0831	3.0735
		S3	1.93	.811	.018**	.3290	3.5256
	S2	S1	-1.58	.766	.039**	-3.0735	-.0831
		S3	.35	.82	.672	-1.2755	1.9735
	S3	S1	-1.93	.81	.018**	-3.5256	-.3290
		S2	-.35	.82	.672	-1.9735	1.2755
Non-productive coping	S1	S2	.18	1.40	.900	-2.5896	2.9422
		S3	1.13	1.50	.451	-1.8271	4.0861
	S2	S1	-.18	1.40	.900	-2.9422	2.5896
		S3	.95	1.52	.532	-2.0519	3.9582
	S3	S1	-1.13	1.50	.451	-4.0861	1.8271
		S2	-.95	1.52	.532	-3.9582	2.0519

** . The mean difference significant at the 0.05 level.

In order to investigate relationships among variables (self-efficacy, learned helplessness, depression, problem-focused coping, reference to others and non-productive coping), Pearson correlations were carried out. A correlation matrix (Table 6) showed the relationship among the six dimensions of the scale. Correlations analyzes were performed on each self- and other- paired score in order to check the relationship of the variables of dyslexic identity and coping strategies among those adolescents with dyslexia.

Paired correlation reports showed the significant positive relationships between the paired variable: self-efficacy and problem-focused coping ($r = .584, p < 0.1$); self-efficacy and reference to others ($r = .477, p < 0.1$); problem-focused coping and reference to others ($r = .663, p < 0.1$); learned helplessness and depression ($r = .708, p < 0.1$); learned helplessness and references to others ($r = -.169, p < 0.42$); learned helplessness and non-productive coping ($r = .499, p < 0.1$); depression and non-productive coping ($r = .486, p < 0.1$); problem-focused coping and references to others ($r = .663, p < 0.000$). For the negative correlations, they were the pairs of learned helplessness and references to others ($r = -.169, p < 0.42$) and depression and references to others ($r = -.24, p < 0.004$).

Table 7

Correlations among the variables for dyslexic identity and coping

		Self-efficacy	Learned helplessness	Depression	Problem-focused	Reference to others	Non-productive
Self-efficacy	Pearson	1	.053	-.024	.584	.477	-.060
	Correlation						
	Sig. (2-tailed)		.522	.769	.000**	.000**	.469
	N	146	146	146	146	146	146
Learned helplessness	Pearson	.053	1	.708	-.036	-.169	.499
	Correlation						
	Sig. (2-tailed)	.522		.000**	.662	.042*	.000**
	N	146	146	146	146	146	146
Depression	Pearson	-.024	.708	1	-.122	-.240	.486
	Correlation						
	Sig. (2-tailed)	.769	.000**		.144	.004*	.000**
	N	146	146	146	146	146	146
Problem-focused coping	Pearson	.584	-.036	-.122	1	.663	-.073
	Correlation						
	Sig. (2-tailed)	.000**	.662	.144		.000**	.384
	N	146	146	146	146	146	146
Reference to others	Pearson	.477	-.169	-.240	.663	1	-.086
	Correlation						

	Sig. (2-tailed)	.000**	.042	.004*	.000**		.300
	<i>N</i>	146	146	146	146	146	146
Non-productive coping	Pearson						
	Correlation	-.060	.499	.486	-.073	-.086	1
	Sig. (2-tailed)	.469	.000**	.000**	.384	.300	
	<i>N</i>	146	146	146	146	146	146

** . Correlation significant at the 0.01 level (2-tailed).

*. Correlation significant at the 0.05 level (2-tailed).

4.3 Qualitative study

Some findings were identified from the data analysis that might be contrary to Burden's findings in 2008. Burden found that the identity of dyslexic students was likely to be positive significantly, if their schooling was longer. In contrast, all the variable mean values in this study decreased when the grade year was going up (see Table 8). Burden also pointed out that students showed fewer indications of feelings of learned helplessness and generalized depression related to their dyslexic conditions in longer schooling. In this study, learned helplessness and depression among the students did not show any significant changes with the higher grades. Moreover, the study of Frydenberg and Lewis (2004) showed that adolescents were inclined to seek social support and described this as one of their cornerstones of their coping process. Reference to others of this study showed decreases within the higher grades.

In conclusion, it is interesting to further examine the scenario in the interview. Especially the reason for the results which were not consistent to previous studies; perhaps there were some different factors for adolescents with dyslexia need further investigation.

Table 8

Mean scores of the different grades of the qualitative study

		N	Mean
Self-efficacy	S1	55	27.70
	S2	51	26.76
	S3	40	25.90
Learned	S1	55	11.10
Helplessness	S2	51	10.84
	S3	40	10.07
Depression	S1	55	19.55
	S2	51	18.71
	S3	40	18.05
Problem-focused Coping	S1	55	26.29
	S2	51	24.10
	S3	40	24.15
Reference to others	S1	55	17.13
	S2	51	15.55
	S3	40	15.20
Non-productive Coping	S1	55	24.85
	S2	51	24.68
	S3	40	23.73

In the original interview protocol, some questions were formulated under the themes of confusion, responses to significant others, subsequent action and change of school with reference to Robert Burden's "All about me" (Burden, 2005). In response to the quantitative findings, more questions were added. These were concerns regarding how they felt towards learned helplessness, what their perception of receiving help from others was, and how they evaluated themselves.

Seven participants were invited to the interviews. They were males diagnosed SpLD, with normal IQ and who studied in mainstream secondary schools in Hong Kong.

4.3.1 Results of qualitative study

All interviews were recorded with an audio recorder, after gaining the consent of the interviewees. Dialogs were transcribed into text by the researcher. Transcripts were analyzed by using IPA. In order to facilitate the analyzing and identifying of themes from the transcripts, a structure was constructed to understand the relationship among these themes (Smith, Flowers, & Larkin, 2009). The analysis finally generated a total of 3 super-ordinate themes, 'Growing up', 'Being dyslexic' and 'Free thinking', following by 9 sub-themes (Table 9).

Table 9

Identification of the super-ordinate themes and sub-themes from the qualitative data

Super-ordinate themes	Sub-themes
Growing up	Self-efficacy
	Relationship with others
	Primary and secondary school experience

Being dyslexic	Feeling of being dyslexic
	Coping strategies
	Feelings of ownership of the label
Free thinking	Metaphor of dyslexia
	Thinking about future
	Back to day one

4.3.2 Super-ordinate themes and sub-themes

4.3.2.1 Super-ordinate theme 1: Growing up

This theme revealed dyslexic adolescent's experiences of change during secondary school, and included their self-efficacy, peer relationships and comparison of primary and secondary schools.

4.3.2.1.1 Theme 1.1: Self-efficacy

During the interviews, the researcher asked the participants to rate themselves with regard to their self-confidence which counted as how much confidence they had out of 100. All of them were able to clearly rate with follow up reasons. They had a mean of 62 and SD of 21.28, which meant there was high variation within the group.

Table 10

Mean of self-confidence rated by interviewees

Mean	N	Std. Deviation
62	7	21.28

Several participants rated themselves with their reasons. Student C (S3) rated himself 90 out of 100. His explanation was:

Other than reading, I have full confidence on remembering things. For example, I can cycle to everywhere; I can remember to go back without help, even to the places I have never been. My auntie also praises me as a human GPS. (Student C, S3)

Similarly, Students A, B and D were of the view that:

I have confidence with bowling, sports and other activities. I feel I can tackle the skill and I am good at this. (Student A, S1)

I am good at playing games on Smartphones and cooking. Mom praises me that I have got talent with cooking. (Student B, S2)

Racing, and shooting games are my favorite, I win all the time. I have confidence on video gaming. (Student D, S1)

Conversely, one participant rated himself with a low mark with the following reason:

I am always doing things wrong, even if have confidence. I am only good in Maths. (Student E, S2)

4.3.2.1.2 Theme 1.2: Relationship with others

Participants talked about their relationships with others. They all showed positive relationships with teachers and peers. For instance:

If I get problems, I will ask my teacher first. Sometimes, I will ask my classmates who are smarter than me. I think my friends will not deride me, I trust them. (Student A, S1)

If I have question, I will ask my mother or my subject teacher. I will never ask someone whom I do not trust on. I seldom ask others; I am afraid that they do not reply me. (Student D, S1)

I will ask my classmates; they can tolerate my bad temper. (Student F, S2)

I will only find my social worker (counselor); she helped me a lot. I will not ask my parents again; they do not understand my dyslexic difficulties. They even bit me before I was diagnosed with dyslexia, they also shouted at my laziness. (Student G, S3)

4.3.2.1.3 Theme 1.3: Primary and secondary school experience

Participants were asked to compare their learning experience and perception of primary and secondary schools. Most of them expressed their gratitude to secondary school teachers and felt it was more difficult to survive in primary school. For example:

I prefer to study in secondary school; teachers and classmates are nice to me. I found that it is easier to study in secondary school. In primary school, too many things to do and too many things I did not understand and no one helped me. (Student C, S3)

It's hard to choose anyone. If you want me to choose one, I like secondary school. I find it more friendly and freedom in secondary school. (Student E, S1)

I like secondary school; teachers are kind and understand the needs of dyslexic people. Teachers in primary school were dignified and more majestic to students. (Student G, S3)

On the contrary, one participant had the following feedback to primary school:

I loved primary school when I went there for the first time, I felt the principal, teachers and classmates were kind with me. Primary school gave me a feeling of intimacy. I can hardly make friends with my classmates in secondary school. (Student B, S2)

4.3.2.2 Super-ordinate theme 2: Being dyslexic

This theme showed how those students expressed themselves by living with dyslexia. They also shared their coping strategies against dyslexia and how it felt having their label of being dyslexic.

4.3.2.2.1 Theme 2.1: Feeling of being dyslexic

Participants felt moderate when they were notified as being dyslexic. Three of them were told when in primary one. For example:

I felt nothing special when I was being told. I only cannot spell and dictate one word easily.

(Student F, S2)

I think it is OK; there is nothing wrong with me other than doing homework. (Student A, S1)

Conversely, participants felt sad if they told about being dyslexic when older. As in the following two quotes:

I cannot remember when I was notified, but I felt sad. I only knew why I learn so hard as I am dyslexic. (Student D, S2)

I think it was the hardest time in my life before I was told about being dyslexic. I did not want to continue my study at that time, I felt despair. After my social worker told me the truth, I felt I was released but still sad. (Student G, S3)

4.3.2.2.2 Theme 2.2: Coping strategies

Coping with difficulties was one of the most important issues for the dyslexic students. The students were asked to share some strategies of coping with learning. Some of them will ask someone to help, search the answer through the Internet or read more books. For example:

The most effective way was searching for the answer from my smartphone. I can browse the web to find the answer. Secondly, I can ask my mom and friend to help me. (Student A, S1)

I will search the answer through my phone, besides I will ask my subject teachers. I seldom ask my classmates; they do not know the answer as well. (Student F, S2)

4.3.2.2.3 Theme 2.3: Feelings of ownership of the label

It is not easy to imagine the feeling of being dyslexic. Most of the students replied that there was no advantage to having this label:

I cannot say anything is good with being dyslexic, but many things are worse about being dyslexic. (Student A, S1)

But two of them had a positive answer to it:

I think it is good that I can have more time during examinations, other than that, I cannot say anything is good to being dyslexic. (Student B, S2)

I think I am more positive after I knew I am dyslexic. I learnt how to be more optimistic. (Student E, S1)

4.3.2.3 Super-ordinate theme 3: Free thinking

According to Burden's experience of interviewing dyslexic students, they should be allowed to explore with metaphors that they have constructed for themselves (Burden, 2008a). However, some perspectives of thinking have been expressed in a direct way; a creative communicative method was meaningful to it.

4.3.2.3.1 Theme 3.1: Metaphor of dyslexia

Some participants only showed how it felt like or to live as having dyslexia, but some had wonderful replies:



I think dyslexia is like a book. If you miss one page or one paragraph, you will miss much knowledge. (Student A, S1)

I think it is like a barrier in your mind. Normal people do not have this barrier. If you cannot get over this barrier, you will lose. (Student E, S1)

I think it is like a wall, a dark wall. (Student F, S2)

I think I live like aged people. I cannot watch clearly, I will walk heavily, I can write hardly. I will be exhausted easily. (Student G, S3)

4.3.2.3.2 Theme 3.2: Thinking about future

Participants replied on their thinking about the future in a serious manner. Most of their answers were about careers without any language-related aspects.

I cannot imagine what I can do in the future, because of my poor results in examinations. I prefer to a cook, this job does not have more works about writing and spelling. (Student B, S2)

I can be a lifeguard of swimming pool. I think I can fit for any job but not related to writing any words. (Student C, S3)

I want to be an E-sports player; I am good at playing internet games. (Student D, S1)

But one student could not think of any job that he preferred:

I want to a normal person only. I cannot tell you at this moment. (Student E, S1)

4.3.2.3.3 Theme 3.3: Back to day one

Participants were asked to choose if they wanted to have dyslexia or not. Most of their replies were:

Absolutely not. I cannot survive without reading. Not many people are like that. (Student C, S3)

One participant replied differently:

I still want to be dyslexic; I like to be helped by others. I like the feeling of being helped; people who do not have dyslexia will help me. But I am afraid that people who know that I am dyslexic, I hope other people will help me. (Student B, S2)

4.4 Summary

The results of the qualitative part of this study showed that seven students had confidence of themselves with the quotes of self-efficacy, and this was also extended to the results from the questionnaires. With the analysis of the questionnaires, ‘reference to others’ was found to be statistically significant. After the interviews, how the interviewees received help from each other was clearly stated. In addition, the feeling of being dyslexic and how they coped with problems were quite clear from their replies. The last super-ordinate theme allowed the participating dyslexic students to express their underlying thinking of being dyslexic. All the results of the quantitative and qualitative studies will be discussed in the next section.



Chapter 5

Discussion and Conclusion

5.1 Introduction

The purpose of this study was to find out the relationship between dyslexic identity, learned helplessness and the coping of adolescents with dyslexia in the Hong Kong school contexts through an explanatory mixed-methods design. Given that adolescence is a critical time in the development of the individual (McInerney, 2014; Thuen & Bru, 2004), their identity lowered remarkably after they have been a secondary school student (Chang, McBride-Chang, Au, & Stewart, 2003). Meanwhile, their coping styles would have established at this stage (Firth et al., 2010); adolescents with dyslexia are quite puzzled during this stage.

In order to address the purpose of this study, the following issues guided the research: the profile of dyslexic identity, learned helplessness and coping, and the relationship between dyslexic identity, learned helplessness and coping. Answering these questions helped to understand how dyslexic identity correlated to learned helplessness and coping among adolescents with dyslexia.

This study also revealed that adolescents with dyslexia were struggling to face the impact under the problems of learned helplessness which negatively affected the building of their identity. Their coping strategies of problem-focused, reference to others used by adolescents with dyslexia were significantly positive correlated to their dyslexic identity. At the same time, non-productive coping strategies were significantly correlated to learned helplessness. Based on the results of this study, two hypotheses were acceptable. As mentioned in the literature review (Chapter 2), the identity of adolescents with dyslexia was composed by academic self-concept and global self-concept. From the study of Humphrey and Mullins (2002), adolescents with dyslexia can be

affected by the painful experience of repeated failure and then develop a poor academic self-concept. However, the studies of Kloomok and Cosden (1994) and Zeleke (2004) argued that other than academic self-concept, there was global self-concept which was more applicable to measure their identity.

5.2.1 The dyslexic identity of adolescents with dyslexia: A vulnerable but tough mind

If dyslexic identity interpreted as a form of labeling, dyslexic is being stigmatized rather than only a label of a person (Macdonald, 2010). As previously mentioned, the identity of adolescents with dyslexia is closely formulated under the effect of academic and global performance. This process is highly complex through the different stages of becoming aware of difference and transformation into a balanced dyslexic person (Alexander-Passe, 2015).

Referring to the results of this study, the mean value of dyslexic identity was rather high ($M = 56.44$). This results were consistent to Burden's (2008a) finding, the score of self-efficacy and depression were higher than learned helplessness. Hence, Burden concluded that dyslexic conditions had an effect on depression, but fewer on learned helplessness. This was verified by the responses of the interviewees' answers about being dyslexic and ownership of a label. Although their feelings of being dyslexic were not too negative, they did not like the label of dyslexia. This was compatible with the answer of Student C to the question of "Back to Day One". The answer was "*Absolutely not. I cannot survive without reading*"; it demonstrates the painful experience of being dyslexic. Furthermore, they would not choose to be dyslexic whether they had the chance to choose again. This implicated that they were struggling to overcome their learning difficulties. Meanwhile, they also faced academic failure and never ending barriers.

There may be a difference in interpretation of learning between the East and West. Li (2002) pointed out that intelligence plays an important role in learning in the West, and studies have focused on students' individual characteristics such as competition (Hess & Azuma, 1991), self-esteem (Baumeister, Campbell, Krueger, & Vohs, 2003), and social competence (Wentzel & Caldwell, 1997). On the other hand, students from the East displayed strong group orientation, compliance with authority, and thoroughness in their approaches of dealing with tasks (Li, 2002). Moreover, Western approaches to learning were characterized by "overt and private questioning, expression of personal hypotheses, and a desire for self-directed tasks" (Tweed & Lehman, 2002). According to the Western model, learning was a process of understanding the essentials of an issue or topic, and exploring and solving tasks or problems. Learning might be treated as mind orientation, differentiation of mental functions to understand the world, development of personal skills, and the realization of personal goals (Li, 2005). A Western style of learning seemed to emphasize understanding and self-determination, and concerns more about ability than effort.

Conversely, Eastern children tended to learn because of the expectation from an authority figure, such as mothers or teachers. Some students performed well in order to satisfy adults' expectations, especially if happening within a Chinese family. For example, some students from Taiwan reported that they originally had intrinsic interests in learning, but later developed the feeling of guilt and shame once they had failed to fulfill the adults' expectations (d'Ailly, 2003). Moreover, Chinese students perceived that their performance and achievement of learning will affect their family, as they are obliged to fulfill the expectation of their parents and teachers. Learning was a way for Chinese students to perfect themselves, to master materials, and to show their hardship, persistence and learn to be tough. However, once they experienced failures, they

felt shameful and guilty (Li, 2002, 2005, 2012). Eventually, as a poor learner, they did not feel shame-guilt only but also could not face their families (Li, 2002).

With reference to the Chinese cultural model of learning, dyslexic identity seemed to have an alternative interpretation apart from the literature. Given that some cases of nursing students avoided to disclose their dyslexic identity for the reason of being stupid related to dyslexia (Evans, 2015), this kind of negative interpretation of dyslexic identity was often found in the literature (Humphrey, 2002; Riddick et al., 1999). Conversely, Burden (2008a) argued that a positive or negative identity was gradually formed from their motivation to learn and the feelings of self-efficacy and/or learned helplessness, and would contribute to their effectiveness of learning (Alexander-Passe, 2015). Sense of identity was also contributed to other factors, as recognized and understood by parents or significant others; the consequences of being diagnosed has an effect socially and psychologically (Burden, 2008a).

5.2.2 The profile of learned helplessness of adolescents with dyslexia: A suffered mind

By referring to questionnaires results, the level of learned helplessness, as well as depression, were not too high among the participants. In Table 3, the mean of learned helplessness ($M = 10.72$) and depression ($M = 18.84$) compared to the mean of self-efficacy ($M = 26.88$), were both comparatively low. However, the results from the interviews revealed a different angle to interpret their learned helplessness and depression. The answers from 5 out of 7 interviewees, did not show their hard feeling of being dyslexic. It is a noteworthy condition that two of them (Student D, S1 and Student G, S3) expressed their sadness about being dyslexic; they even did not conceal their hard feeling with dyslexia. On the other hand, two questions asked during the interviews were able

to unmask their learned helplessness from a deeper side of their dyslexic mind; one was how they think about their future and another was Back to Day One of being dyslexic. Most of their answers were about careers without any language-related aspects, revealing that they were suffering from the difficulties of having learned helplessness to tackle language. Besides, with regard to their answers of Back to Day One, most of them did not choose to be dyslexic, again, with the reason that dyslexia gave them many barriers throughout their life.

With reference to the literature, studies of dyslexic students showed they were hindered by barriers that they cannot go beyond (Alexander-Passe, 2006; Diener & Dweck, 1978). People had some patterns of responses after feeling failure, as they attributed them to their personal inadequacy and being anxious (Dweck & Leggett, 1988). Notwithstanding the findings of this study did not match with the literature, some points deserved further investigation. For example, students are generally encouraged to achieve better academic results as they are highly appreciated by their parents; academic performance is one of the main stressors for youth in Hong Kong (Busiol, Lo, & Yan, 2016). Forasmuch as poor academic performance of adolescents with dyslexia, they were predicted to have learned helplessness and be stressed. However, this seems not to be consistent with the findings of this study; the score of learned helplessness was comparatively low. One study of Chinese cultural beliefs about adversity from Shek (2004), under the influence of Confucian thought, emphasized positive values of adversity and individual capacity to overcome adversity. Moreover, resilience was found as a predictor of the well-being of Chinese students that can assist a person to deal with difficulties and adversity (Skrzypiec, Askill-Williams, Zhao, Du, Cao, & Xing, 2018). Simultaneously, Buddhism and Taoism emphasized fate, in which people were incapable of changing adversity (Shek, 2004). As previously mentioned, interviewees showed how they cope with learned helplessness.



The results also revealed that learned helplessness slightly influenced the performance of adolescents with dyslexia. The main point is that the effect of learned helplessness was unmasked or blurred under the cultural effect, adolescents with dyslexia were worried or anxious of being unsuccessful in their academic performance simultaneously. Hence, they avoided mentioning their difficulties during the interview, and even forgot about them. As Burden (2008a) also argued, a negative response from a small portion of dyslexic students might affect the interpretations of previous research findings. This factor is further discussed in Section 5.2.3.

5.2.3 The profile of coping of adolescents with dyslexia: A positive problem-solving mind

Dyslexic students are faced with problems in schools. They are not losers, and often adopt one or more specific ways of dealing with failure (Singer, 2008). Based on the results from the quantitative parts of this study, adolescents with dyslexia were inclined to choose ‘problem-focused’ and ‘non-productive coping’ in order to solve problems and were relatively higher than ‘reference to others’. A study from Firth, Greaves, and Frydenberg (2010) compared the coping strategies of adolescent students with or without learning disabilities; students with learning disabilities reported higher use of non-productive coping than other students.

Referring to the results of this study, the mean of coping ($M = 68.17$) was comparatively high. As the variable coping was composed of three subscales: problem-focused coping ($M = 24.94$), reference to others ($M = 16.05$) and non-productive coping ($M = 24.48$). The results of non-productive coping were inconsistent to a study of Firth and her colleagues (Firth et al., 2010), regarding the higher use of non-productive coping when students with learning difficulties get older. This can be explained by the answers of students from their interview. With responses from

the interviewees, they had strategies to cope with problems. They tried to search for answers from smartphone or internet; the second choice was to ask their teachers or peers. This seemed consistent to the finding of the quantitative study (Table 11). It implied that students used non-productive coping strategies to a lesser extent to deal with their problems, although there was not a significant drop with the trend. Moreover, some items of non-productive coping were not coping, to ignore the problem, self-blame, worry and wishful thinking. From the results of both the quantitative and qualitative studies, they can have an inference that adolescents with dyslexia in Hong Kong school contexts are inclined not to use non-productive coping.

Table 11

Mean table of the variable for non-productive coping

	<i>N</i>	Mean	Standard Deviation
S1	55	27.31	7.82
S2	51	27.58	6.27
S3	40	26.50	8.25
Total	146		

With reference to a study of Ganim and Frydenberg (2006), students with a positive attitude to school related to the coping strategies that they used; they solved problems and remained positive when using problem-focused coping and reference to others. Conversely, students with a negative attitude to school were more likely to engage in Non-Productive coping strategies. This was consistent to the findings of the qualitative part of this study. Most of the interviewees replied

that their positive attitude to their present school was more than their previous primary school; their reason was support from teachers and more academic success in their present school. Moreover, participants of this study conveyed other views through the interviews. They used to ask help from people they trusted, like parents and closed classmates. This seemed not to be consistent to the results of the questionnaires which showed a contradiction of their mindset. However, when reviewing questions about ‘reference to others’ of the scale, the term “other” was used but not for “parents” or “friends” which would have misled their understanding to ‘reference to others’. Fortunately, the interviewees clarified their meanings about ‘reference to others’ which asked for help from people who they trusted or had a close relationship to them.

5.2.4 The relationship between dyslexic identity, learned helplessness, coping of adolescents with dyslexia: A tormented life experience

When students’ performance was impeded by learned helplessness, they inclined to attribute their failures to personal inadequacy. They also felt bored or anxious over their performance, they rather engaged in task-irrelevant verbalizations. Most of them showed their impotence of problem-solving (Dweck & Leggett, 1988). These responses were somehow similar to the behaviors of non-productive coping, dyslexic students that even showed their frustration and depression (Humphrey, 2002). The results of this study were consistent to the above response patterns; learned helplessness was significantly correlated with depression and non-productive coping. Conversely, self-efficacy was correlated with problem-focused coping and reference to others was significant in this study. More importantly, self-efficacy did not show any relationship with non-productive coping; learned helplessness and depression did not show any relationship with problem-focused coping and reference to others simultaneously.

This dichotomous situation seemed to be compatible with the division of positive and negative dyslexic identity as previously mentioned. Furthermore, with the data of the interviews, answers of the participants revealed that they were tormented between successfully striding over barriers or being knocked down by their difficulties. From the metaphor of dyslexia, it was a helpful way to explore how dyslexic people construct themselves with supportive prompting that makes sense of their dyslexic condition (Burden, 2008a). They listed out: a booking with missing pages, a barrier, a dark wall and aged people. These things were gloominess in some sense; perhaps they showed their struggle with a sense of confusion and inevitable failure.

From another finding of this study, the result of the ANOVA showed that there was a significant effect with ‘reference to others’ between the S1, S2 and S3 students. The data of the post hoc tests displayed the interactions of different grades of students; S1 students showed their tendency of ‘reference to others’ differing from the S2 and S3 students. A recent study of Hong Kong adolescents found that psychological well-being was highly correlated to their social environment; factors of school support and relationships with family members were essential to their development of psychosocial well-being (Cheung, Chan, Lui, Tsui, & Chan, 2018; Xie, Yan, Wang, Han, & Gai, 2018).

The findings from Lewis and Frydenberg (2004) reported that adolescents tended to use problem-focused coping with their coping ability and poorer coping was inclined to use non-productive coping style with their inability to cope. However, it was very surprising that increased use of reference to others predicted that someone was inclined less able to cope. Although the finding studied adolescents without dyslexia, another finding of Firth, Frydenberg, Steeg, and Bond (2013) indicated that there was no significant difference on coping between adolescents who have or do not have learning disabilities. Accordingly, this was consistent to the findings of this



study and was more or less similar to the dichotomous situation previously mentioned. Additionally, difference between reference to others with S1, S2 and S3 of this study matched more with use of reference to others and was predicted to less ability to cope. Given that dyslexic children struggled to overcome their difficulties and developed a sense of dyslexic identity, it was described as a result of their interactions with others (Burden, 2008a). Furthermore, factors contributed to young people's resilience and were related to a positive personality disposition, poor family relationship and the availability of external supports (Frydenberg & Lewis, 1996; McKenzie, Frydenberg, & Poole, 2004).

5.2.4 The development of adolescents with dyslexia: the way out in the school context of Hong Kong

As Burden (2008b) concluded in his book chapter: "We do not yet know, as indicated previously, how important the degree of a person's literacy difficulties may be in affecting their feelings about themselves, or whether the discrepancy between their attainments in literacy and other cognitive or life skills is a significant contributing factor" (p.407). As previously mentioned, dyslexic identity is a vulnerable component in their mind; it can change under the degree of their learned helplessness and coping. Students with dyslexia face learning problems from time-to-time, and their ability in reading and writing are significant learning barriers for them. The way out seems to be how they cope with their learning difficulties, especially the discrepancy between different performances. The results from the quantitative and qualitative studies may have some implications. Reviewing three themes from three participants:

Student A, S1:

Self-efficacy: *I have confidence with bowling, sports and other activities. I feel I can tackle the skill and I am good at this.*

Feeling of being dyslexic: *I think it is OK; there is nothing wrong with me other than doing homework.*

Feelings of ownership of the label: *I cannot say anything is good with being dyslexic, but many things are worse about being dyslexic.*

Coping strategies: *The most effective way was searching for the answer from my smartphone. I can browse the web to find the answer. Secondly, I can ask my mom and friend to help me.*

Relationship with others: *If I get problems, I will ask my teacher first. Sometimes, I will ask my classmates who are smarter than me. I think my friends will not deride me, I trust them.*

Student F, S2:

Self-efficacy: *My major problem is English. It is not hard to spell a word, but comprehension is very difficult. I have no problem during daily life.*

Feeling of being dyslexic: *I felt nothing special when I was being told. I only cannot spell and dictate one word easily.*

Feelings of ownership of the label: *I cannot any good with dyslexia, I cannot understand many Chinese.*

Coping strategies: *I will search the answer through my phone, besides I will ask my subject teachers. I seldom ask my classmates; they do not know the answer as well.*



Relationship with others: *I will ask my classmates; they can tolerate my bad temper.*

Student G, S3

Self-efficacy: *I am not confident to do things. If I talk with friend, I will do better.*

Feeling of being dyslexic: *I think it was the hardest time in my life before I was told about being dyslexic. I did not want to continue my study at that time, I felt despair. After my social worker told me the truth, I felt I was released but still sad.*

Feelings of ownership of the label: *I cannot think anything good about dyslexia, perhaps other classmates will think it is good to have more time during the examination.*

Coping strategies: *I will browse internet.*

Relationship with others: *I will only find my social worker (counselor); she helped me a lot. I will not ask my parents again; they do not understand my dyslexic difficulties. They even bit me before I was diagnosed with dyslexia, they also shouted at my laziness.*

It was clear that the three students' self-efficacy was relatively high if they did not mention about reading and writing. This was consistent to the argument that they had a positive global self-concept but a negative academic self-concept (Humphrey & Mullins, 2002). Especially from the reply of Student F, "*I have no problem during daily life*". He showed his confidence on catering of daily life other than literacy skills. Moreover, they all used terms "*worse*", "*sad*" and "*hardest*" related to their feelings of being dyslexic. Obviously, it was under the influence of learned helplessness and their learning difficulties. However, they had their own coping strategies to cater

for their learning; all of them inclined to search the answer from internet by themselves before asking other people. This showed their motivation of learning even though they are dyslexic.

Referring to the results of the ANOVA in this study, ‘reference to others’ was a significant item correlated among the groups. It was consistent to the findings from the qualitative study. Three students were comforted to ask other people who they trusted. The variable of ‘references to others’ showed significantly statistical differences among the S1 students with S2 students ($M = 1.58$, $SD = .766$, $p < .039$) and with S3 students ($M = 1.93$, $SD = .811$, $p < .018$). S1 students would rather seek for help than cope with problems by themselves. On the other hand, although the variable ‘problem-focused coping’ did not show significantly statistical differences among the S1 students and S2 students ($M = 2.20$, $SD = 1.11$, $p < .050$) and with S3 students ($M = 2.14$, $SD = 1.12$, $p < .073$). This implied that S2 and S3 students preferred to cope with their problems by themselves first before asking someone. This revealed that when S1 students faced the transition from primary school to secondary, they were learning to accommodate to the new environment of learning. Especially with regard to the hierarchical and significantly competitive secondary school system with three levels of banding in Hong Kong, they were quite pressured by their surroundings (Chao, Sze, Chow, Forlin, & Ho, 2017).

Moreover, the paired correlation of self-efficacy and problem-focused coping ($r = .584$, $p < 0.1$); self-efficacy and reference to others ($r = .477$, $p < 0.1$); problem-focused coping and reference to others ($r = .663$, $p < 0.1$). This showed the relationships between self-efficacy, problem-focused coping and reference to others. Conversely, the paired correlation of learned helplessness and depression ($r = .708$, $p < 0.1$); learned helplessness and non-productive coping ($r = .499$, $p < 0.1$); depression and non-productive coping ($r = .486$, $p < 0.1$); problem-focused coping and references to others ($r = .663$, $p < 0.000$). This showed the relationship between learned helplessness,

depression, non-productive and references to others. This dichotomous division of perception on learned helplessness and coping can be explained by the results mentioned in the previous paragraphs. Such an effect on the transition of students from primary school to secondary school cannot be underestimated, since there were many differences in the academic and discipline focus of schooling in secondary schools (Sin, 2001). Eventually, the problems related to identity building may be developed during the times of transition (Yang, Holden, Carter, & Webb, 2018).

A study pointed out that adolescents with learning difficulties experienced detrimental effects in psychological domains; placement in mainstream schools may be a potential negative consequence of it (Crabtree & Rutland, 2001). However, the solution for this negative consequence may be an intervention program of coping strategies. The “Success and Dyslexia” program by Firth and Frydenberg (2011) can provide good evidence for this assumption. This program included two hours’ professional development named “Whole-school dyslexia professional development and change” for all school staff, a 10-session universal coping program for all Grade 6 students, and a 10-session withdrawal dyslexia coping program for Grade 6 students with dyslexia which focused on coping strategies of dyslexia-related situations (Firth, Frydenberg, Steeg, & Bond, 2013). This program received positive feedbacks and suggestions from teachers; the model of the whole school and whole class program nested on an environment for students with dyslexia to succeed with their newly learned coping strategies (Firth, Frydenberg, & Bond, 2012). Perhaps adolescents with dyslexia need a program for coping strategies like this. As previously mentioned, the relationships between self-efficacy, problem-focused coping and reference to others may come from an effective way of coping. Conversely, the relationship between learned helplessness, depression, non-productive and references to others may be related to an inefficient way of coping.

In sum, adolescents with sufficient school support or active coping skills can eliminate the effect from negative life experience (In-Albon, Meyer, Metzke, & Steinhausen, 2017). Comprehensive school support is essential for the development of identity, as well as it is important to identity formation of adolescents with dyslexia. If they live in a well-supported environment, they tend not to use non-productive coping strategies (Frydenberg & Lewis, 1996). Furthermore, their positive or negative identity would gradually affect their motivation, self-efficacy and learned helplessness, which contribute to their effectiveness of learning (Burden, 2008a).

5.3 Limitations

The limitations of the studies are considered to be the following:

5.3.1 Sample sizes

Although the sample size of this study was sufficient to obtain an analysis (Guadagnoli & Velicer, 1988), as a medium size rule of thumb (Kline, 2005), it was still small in size when compared to other studies. However, the participants of this study were recruited on a voluntary basis; they were limited in population with only 10% of the population being dyslexic. Therefore, if one school invited 10 students to complete the questionnaires, this would have equaled to approximately 10% of the school population. There is no doubt that an increased sample size can increase findings to be more close to reality. Therefore, an inadequate sample would more or less influence the findings of this study.



5.3.2 Questionnaire data

The questionnaire data were found to be limited. Since the questionnaire was designed for dyslexic readers with a suitable font size of 14 and one-side printed, the interpretation of the wordings and meanings of the questions were quite varied to each participant. The number of questions were also considered as a problem to the participants, and whether or not more questions would have made the data more valid to this study.

5.3.3 Interviews

The interviews conducted in this study were found to be too limited in order to draw too much data. The participants from the two schools with S1 to S3 students were expected to generate a picture of how adolescents with dyslexia think about their dyslexic identity. The Interpretative Phenomenological Analysis (IPA) was used to analyze data from the interviews, which triangulated the data from the quantitative part of the study. More interviews could have verified the accuracy of the study and its results.

5.4 Future research

The findings of this study have found some limitations that could potentially inform further studies as follows. First, more participants will be invited to join the study, for example, at least 10% of the total population of secondary school students will be expected to join. In fact, more samples will increase the validation and effectiveness of a future study. Moreover, there were contradiction issues with the findings found in published literature against the results of this study.

One important issue of concern was about the identity of adolescents with dyslexia of Eastern or Western countries; more specifically, about the impact of learned helplessness on them. And how they cope with the barriers and what strategies they use need further investigation. Furthermore, the use of Interpretative Phenomenological Analysis (IPA) will require some adaptation with the local context and further investigation, especially if this method focuses on interpreting participants' experiences in some meaningful form and are explored in further detail. More importantly to adolescents with dyslexia is a coping program for them, but currently, there is no developed coping program for them in Hong Kong. Hopefully, a program will be launched within a short time that is similar to the successful "Read & Write" project (喜閱寫意).

5.5 Conclusion

This study was conducted in Hong Kong secondary schools with dyslexic students in S1 to S3. There is a paucity of research about adolescents with dyslexia living in Hong Kong, as well as their dyslexic identity, learned helplessness and coping styles. Studies conducted during the past few decades have mainly focused on the profile of dyslexic people, their characteristics and developing tools on assessment. The targets of local published research were aimed at dyslexic children; there were limited studies concerned about adolescents. Yet, there were research studies conducted in other parts of the world, studying the contexts of Western countries and their culture. Nonetheless, adolescents with dyslexia have a slight difference in their profile of the discussed issue under Chinese culture and in the Hong Kong context. It is worth investigating the vulnerable but tough mind of adolescents with dyslexia and that cultural factors may positively transform the identity. This needs further research.



With the potential positive transformation of dyslexic identity, learned helplessness of adolescents with dyslexia will simultaneously change. A finding of this study that the increased use of ‘reference to others’ predicted less ability in order to cope was consistent with the findings of Lewis and Frydenberg (2004). It revealed the fact that asking for help is not only a matter concerned with learned helplessness, but is also related to psychological well-being or adversity towards them. With reference to Shek’s (2004) study, problem-solving abilities and social support were found to be coping resources for Hong Kong adolescents in order for them to cope with problems. Hence, it is advisable to initiate project like “Success and Dyslexia” (Firth & Frydenberg, 2011) that has provided a chance for dyslexic adolescents to learn how to cope with difficulties and develop a positive identity. Furthermore, learning packages for dyslexia in secondary schools were quite insufficient in the Hong Kong school context. It is expected that more resources need to be developed support dyslexic adolescents in their learning, and allow them to have more successful experiences. Particularly, new learning packages need to invite school teachers to participate in their development in the future.

As program for coping is essential to adolescents with dyslexia, changing their mindset from an effect under learned helplessness to positive coping is important too. One finding that was consistent with the literature was about the effect of age when adolescents with dyslexia are diagnosed. In this study, a finding was that the earlier the age of being diagnosed, the less the effect of learned helplessness has on being dyslexic. Therefore, early diagnosis and intervention are important to the development of the identity of being dyslexic. With reference to the mindset theory of Dweck (2006), growth mindset and fixed mindset represent notions of intelligence thinking that can or cannot change through effort and learning (Dweck, 2000). In line with the relationship of dyslexic identity, learned helplessness and coping, an intervention program seems



to be essential for their positive identity building. A small size study on students with learning disabilities found that mindset theory was critically contributed to the subjects through positive psychological interventions (Tuckwiller, Dardick, & Kutscher, 2017). Perhaps, the building up of a positive and negative dyslexic identity may be essential to adolescents with dyslexia in order for them to acquire critical coping skills and related constructs that support their success and holistic development (Caskey, Innes, & Lovell, 2018). Given the above suggestion, a comprehensive intervention program is needed. Intervention programs are important for building up positive dyslexic identity of adolescents with dyslexia. Moreover, as learned helplessness will change under the effect of positive dyslexic identity, it also makes coping more effective. It is expected that a comprehensive intervention program be developed for them, which may include coping strategies, mindset training, a better school learning experience and supportive learning environment. In sum, the development of a positive dyslexic identity is not only important for the learning of adolescents with dyslexia, but also the building of a whole life for them. It is also worthwhile to develop learning packages and programs for them together with school teachers in the near future.



References

d'Ailly, H. (2003). Children's autonomy and perceived control in learning: A model of motivation and achievement in Taiwan. *Journal of Educational Psychology*, 95(1), 84-96.

Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87(1), 49.

Alexander-Passe, N. (2006). How dyslexic teenagers cope: An investigation of self-esteem, coping and depression. *Dyslexia*, 12, 256-275.

Alexander-Passe, N. (2015). *Dyslexia and mental health: Helping people identify destructive behaviours and find positive ways to cope*. London: Jessica Kingsley Publishers.

American Psychiatric Association (2013a). *Specific learning disorder*.

http://www.dsm5.org/Documents/Specific_Learning_Disorder_Fact_Sheet.pdf

American Psychiatric Association (2013b). *Highlights of changes from DSM-IV-TR to DSM-5*

http://www.dsm5.org/documents/changes_from_dsm-iv-tr_to_dsm-5.pdf

- Andrews, M., Ainley, M., & Frydenberg, E. (2004). Adolescent engagement with problem solving tasks: The role of coping style, self-efficacy, and emotions. In *AARE International Conference*.
- Armstrong, D., & Humphrey, N. (2009). Reactions to a diagnosis of dyslexia among students entering further education: Development of the 'resistance–accommodation' model. *British Journal of Special Education*, 36(2), 95-102.
- Arnett, J. J. (1992). Reckless behavior in adolescence: A developmental perspective. *Developmental Review*, 12(4), 339-373.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469.
- Bakadorova, O. (2015). *Associations between school self-concept, social relationships and achievement motivation in adolescence in the school context* (Unpublished Doctoral dissertation). Freie Universität Berlin.
- Bandura, A. (1989). *Social cognitive theory*. In R. Vasta (Ed.), *Annals of child development*. Vol. 6. *Six theories of child development* (pp. 1-60). Greenwich, CT: JAI Press.



- Bandura, A. (1999). Social cognitive theory: An agentic perspective. *Asian Journal of Social Psychology*, 2(1), 21-41.
- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological science in the public interest*, 4(1), 1-44.
- Biggerstaff, D., & Thompson, A. R. (2008). Interpretative phenomenological analysis (IPA): A qualitative methodology of choice in healthcare research. *Qualitative research in psychology*, 5(3), 214-224.
- Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning, *Journal of Organizational Behavior*, 36(1), 3-15.
- Brocki, J. M., & Wearden, A. J. (2006). A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology. *Psychology and health*, 21(1), 87-108.
- Brown, M. B., & Forsythe, A. B. (1974). Robust tests for the equality of variances. *Journal of the American Statistical Association*, 69(346), 364-367.

- Bullare, F., Ismail, R., Pang, V., & Madlan, L. (2015). Psychometric evaluation of the Malay adolescent Coping scale (A coping strategies): A study of Malaysian adolescents. *Journal of Research in Humanities, Arts and Literature*, 1(1), 87-94.
- Busiol, D., Lo, H. H., & Yan, L. T. (2016). A review of research on stress among youth in Hong Kong. *International Journal of Child and Adolescent Health*, 9(4), 479-488.
- Burden, R. (2005). *Dyslexia & self-concept: Seeking a dyslexic identity*. London: Whurr.
- Burden, R. (2008a). Is dyslexia necessarily associated with negative feelings of self-worth? A review and implications for future research. *Dyslexia*, 14(3), 1-9.
- Burden, R. (2008b). Dyslexia and self-concept: A review of past research with implications for future action (pp.395-410). In G. Reid et al (eds), *The Sage Handbook of Dyslexia*. London: Sage.
- Burns, A. (1999). *Collaborative action research for English language teachers*. Cambridge: Cambridge University Press.
- Burns, E., & Bell, S. (2011). Narrative construction of professional teacher identity of teachers with dyslexia. *Teaching and Teacher Education*, 27(5), 952-960.



- Carretti, B., Re, A. M., & Arfè, B. (2013). Reading comprehension and expressive writing: A comparison between good and poor comprehenders. *Journal of Learning Disabilities*, 46(1), 87-96.
- Caskey, J., Innes, P., & Lovell, G. P. (2018). Making a difference: Dyslexia and social identity in educational contexts. *Support for Learning*, 33(1), 73-88.
- Chan, C. W. (2008). Overview of specific learning disabilities (SLD)/ dyslexia developments over the last decade in Hong Kong. *Hong Kong Journal of Paediatrics*, 13(3), 196–202.
- Chan, D. W. (1997). Self-concept domains and global self-worth among Chinese adolescents in Hong Kong. *Personality and Individual Differences*, 22(4), 511-520.
- Chan, D. W. (2002). Developmental dyslexia in Hong Kong: An overview and lessons from an international perspective. *Education Journal-Hong Kong-Chinese University of Hong Kong*, 30(2), 1-20.
- Chan, D. W., Ho, C. S.H., Tsang, S. M., Lee, S. H., & Chung, K. K. H. (2007). Prevalence, Gender Ratio and Gender Differences in Reading-Related Cognitive Abilities among Chinese Children with Dyslexia in Hong Kong. *Educational Studies*, 33(2), 249-265.



- Chang, L. M., McBride-Chang, C., Au, E., & Stewart, S. (2003). Life satisfaction, self-concept, and family relations in Chinese adolescents and children. *International Journal of Behavioral Development*, 27(2), 182-189.
- Chao, C. N. G., Sze, W., Chow, E., Forlin, C., & Ho, F. C. (2017). Improving teachers' self-efficacy in applying teaching and learning strategies and classroom management to students with special education needs in Hong Kong. *Teaching and Teacher Education*, 66, 360-369.
- Chapman, J. W. (1988). Learning disabled children's self-concepts. *Review of Educational Research*, 58, 347-371.
- Chapman, J. W., Lambourne, R., & Silva, P. A. (1990). Some antecedents of academic self-concept: A longitudinal study. *British Journal of Educational Psychology*, 60, 142-152.
- Chen, H. Y., & Boore, J. R. (2010). Translation and back-translation in qualitative nursing research: methodological review. *Journal of clinical nursing*, 19(1-2), 234-239.
- Chen, C. J., Keong, M. W. Y., Teh, C. S., & Chuah, K. M. (2016). Web text reading: what satisfy both dyslexic and normal learners? *Journal of Computers in Education*, 3(1), 47-58.

- Cheung, J. C. S., Chan, K. H. W., Lui, Y. W., Tsui, M. S., & Chan, C. (2018). Psychological well-being and adolescents' internet addiction: A school-based cross-sectional study in Hong Kong. *Child and Adolescent Social Work Journal*, 1-11.
- Chik, P. P. -M., Ho, C. S. -H., Yeung, P.-S., Wong, Y. -K., Chan, D. W. -O., Chung, K. K. -H., & Lo, L. -Y. (2012). Contribution of discourse and morphosyntax skills to reading comprehension in Chinese dyslexic and typically developing children. *Annals of Dyslexia*, 62, 1-18.
- Chung, K. K. H., & Ho, C. S. H. (2010). Dyslexia in Chinese language: An overview of research and practice. *Australian Journal of Learning Difficulties*, 15(2), 213-224.
- Chung, K. K. H., Ho, C. S. H., Chan, D. W., Tsang, S. M., & Lee, S. -H. (2010). Cognitive profiles of Chinese adolescents with dyslexia. *Dyslexia*, 16, 2-23.
- Chung, K. K. H., Ho, C. S. -H., Chan, D. W., Tsang, S. -M., & Lee, S. -H. (2011). Cognitive skills and literacy performance of Chinese adolescents with and without dyslexia. *Reading and Writing*, 24, 835-859.
- Chung, K. K. H., Ho, C. S. -H., Chan, D. W., Tsang, S. -M., & Lee, S. -H. (2013). Contributions of syntactic awareness to reading in Chinese-speaking adolescent readers with and without dyslexia, *Dyslexia*, 19, 11-36.

- Chung, K., Lo, C. M., Ho, C. S. H., Xiao, X., & Chan, D. W. (2014). Syntactic and discourse skills in Chinese adolescent readers with dyslexia: A profiling study. *Annals of Dyslexia*, 64, 222-247.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). Abingdon [England]: Routledge.
- Covington, M. V., & Omelich, C. (1979). Effort: The double-edged sword in school achievement. *Journal of Educational Psychology*, 71, 169-182.
- Crabtree, J., & Rutland, A. (2001). Self-evaluation and social comparison amongst adolescents with learning difficulties. *Journal of Community & Applied Social Psychology*, 11(5), 347-359.
- Creswell, J. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (2nd ed.). Upper Saddle River, NJ: Pearson Merrill Prentice Hall.
- Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: SAGE Publications.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-131.



Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. London: Sage Publications.

Creswell, J. W., Plano Clark, V. L., Guttman, M. L., & Hanson, E. E. (2003). Advanced mixed methods research design. In A. Tashakkori and C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209-240). Thousand Oaks, CA: Sage.

Cunningham, E. G., Brandon, C. M., & Frydenberg, E. (2002). Enhancing coping resources in early adolescence through a school-based program teaching optimistic thinking skills. *Anxiety, Stress & Coping*, 15(4), 369-381.

Deaux, K. (1992). Personalizing identity and socializing self. In G. Breakwell (Ed.), *Social psychology of identity and the self-concept* (pp. 9-33). London: Academic Press.

Diener, C. I., & Dweck, C. S. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology*, 36, 451-462.

Dunahoo, C. L., Hobfoll, S. E., Monnier, J., Hulsizer, M. R., & Johnson, R. (1998). There's more than rugged individualism in coping. Part 1: Even the Lone Ranger had Tonto. *Anxiety, Stress and Coping*, 11(2), 137-165.

Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Psychology Press.

Dweck, C. S. (2006). *Mindset*. New York, NY: Random House.

Dweck, C. S., Goetz, T. E., & Strauss, N. L. (1980). Sex differences in learned helplessness: IV. An experimental and naturalistic study of failure generalization and its mediators. *Journal of Personality and Social Psychology*, 38(3), 441.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological review*, 95(2), 256.

Dweck, C. S., & Reppucci, N. D. (1973). Learned helplessness and reinforcement responsibility in children. *Journal of Personality and Social Psychology*, 25, 109-116.

EDB (Education Bureau). 2014. *Operation Guide on the Whole School Approach to Integrated Education*. 3rd ed. Hong Kong SAR: The Government of Hong Kong Special Administrative Region. Chinese version only.

Eissa, M. (2010). Behavioral and emotional problems associated with dyslexia in adolescence. *Current Psychiatry*, 17(1), 39-47.

- Elbaum, B., & Vaughn, S. (2001). School based interventions to enhance the self-concept of students with learning disabilities: A meta-analysis. *The Elementary School Journal*, 101, 303-329.
- Endler, N. S., & Parker, J. D. A. (1990). The multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology*, 58, 844-854.
- Engel, M. (1959). The stability of the self-concept in adolescence, *The Journal of Abnormal and Social Psychology*, 58(2), 211-215.
- Erikson, E. H. (1951). *Childhood and society*. New York, NY: Norton.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Evans, W. (2015). Disclosing a dyslexic identity. *British Journal of Nursing*, 24(7), 383-385.
- Firth, N., & Frydenberg, E. (2011). *Success and dyslexia: Sessions for coping in the upper primary years*. Camberwell, VIC: Australian Council of Educational Research.
- Firth, N.V., Frydenberg, E., Bond, L. (2012). An evaluation of success and dyslexia - A multi component school-based coping program for primary school students with learning disabilities: Is it feasible? *Australian Journal of Learning Difficulties*, 27, 147-162.



- Firth, N., Greaves D., & Frydenberg E. (2010). Coping styles and strategies: A comparison of adolescent students with and without learning disabilities. *Journal of Learning Disabilities*, 43(1), 77-85.
- Firth, N., Frydenberg, E., Steeg, C., & Bond, L. (2013). Coping successfully with dyslexia: An initial study of an inclusive school-based resilience programme. *Dyslexia*, 19(2), 113-130.
- Folkman, S. (2010). Stress, health, and coping: Synthesis, commentary, and future directions. In S. Folkman (Ed.), *The Oxford Handbook of Stress, Health, and Coping* (pp. 453-462). Oxford: Oxford University Press.
- Folkman, S., & Moskowitz, J. (2000). Positive affect and the other side of coping. *The American Psychologist*, 55, 647-654.
- Forlin, C., Sharma, U., & Loreman, T. (2014). Predictors of improved teaching efficacy following basic training for inclusion in Hong Kong. *International Journal of Inclusive Education*, 18(7), 718-730.
- Forlin, C., & Sin, K.-F. (2010). Developing support for inclusion: A professional learning approach for teachers in Hong Kong. *International Journal of Whole Schooling*, 6(1), 7-26.

- Forlin, C., & Sin, K. F. (2017). In-service teacher training for inclusion: Best practice models for professional learning. In G. Noblit (Ed.), *Oxford Research Encyclopedia of Education* (1-25). New York: Oxford University Press
- Frydenberg, E. (2008). *Adolescent coping: Advances in theory, research and practice*. New York, NY: Routledge.
- Frydenberg, E. (2014). Coping research: Historical background, links with emotion, and new research directions on adaptive processes. *Australian Journal of Psychology*, 66(2), 82-92.
- Frydenberg, E., Deans, J., & Liang, R. (2014). Families can do coping: Parenting skills in the early years. *Children Australia*, 39(2), 99-106.
- Frydenberg, E., & Lewis, R. (1992). The short form of the Adolescent Coping Scale: A brief measure of coping. *Psychological Test Bulletin*, 5(2), 122-129.
- Frydenberg, E., & Lewis, R. (1993). *Adolescent Coping Scale: Administrator's Manual*. Victoria, Australia: Australian Council for Educational Research.
- Frydenberg, E., & Lewis, R. (1996). The coping strategies used by adolescents in intact and in separated families. *Australian Journal of Guidance and Counselling*, 6(1), 87-98.



- Frydenberg, E., & Lewis, R. (1999). Academic and general well-being: The relationship with coping, *Australian Journal of Guidance & Counselling*, 9(1), 19-36.
- Frydenberg, E., & Lewis, R. (2004). Adolescents least able to cope: How do they respond to their stresses? *British Journal of Guidance & Counselling*, 32, 25-37.
- Frydenberg, E., Lewis, R., Ardila, R., Cairns, E., & Kennedy, G. (2001). Adolescent concern with social issues: An exploratory comparison between Australian, Colombian, and Northern Irish students. *Peace and Conflict: Journal of Peace Psychology*, 7(1), 59-76.
- Ganim, Z., & Frydenberg, E. (2006). Attitudes to school, coping, wellbeing and stress: An examination of VCAL students. *The Australian Educational and Developmental Psychologist*, 23(1), 7-26.
- Glazzard, J. (2010). The impact of dyslexia on pupils' self-esteem. *Support for Learning*, 25(2), 63-69.
- Glazzard, J., & Dale, K. (2013). Trainee teachers with dyslexia: personal narratives of resilience. *Journal of Research in Special Educational Needs*, 13(1), 26-37.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *Qualitative Report*, 8, 597-606.

- Greene, J. C., & Caracelli, V. J. (Eds.) (1997). Advances in mixed-method evaluation: The challenges and benefits of integrating diverse paradigms: *New directions for evaluation* (No. 74). San Francisco: Jossey-Bass.
- Guadagnoli, E., & Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin*, 103, 265-275.
- Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed.) (pp. 191-215). Thousand Oaks, CA: Sage Publications.
- Hanson, W., Creswell J., Plano Clark, V., Petska, K., & Creswell, J. (2005). Mixed-methods research designs in counseling psychology. *Journal of Counseling Psychology*, 52(2), 224-235.
- Hattie, J. (1992). *Self-concept*. Hillsdale, NJ: L. Earlbaum Associates.
- Hawkins, S., McKenzie, V., & Frydenberg, E. (2006). Coping skills training to adolescent girls in a small group counselling context. *The Educational and Developmental Psychologist*, 23(1), 69-90.
- Heiberger, R. M., & Neuwirth, E. (2009). *R through Excel: A spreadsheet interface for statistics, data analysis, and graphics*. New York: Springer.



- Heyder, A., & Brunner, M. (2018). Teachers' aptitude beliefs as a predictor of helplessness in low-achieving students: Commonalities and differences between academic domains. *Learning and Individual Differences*, 62, 118-127.
- Hess, R. D., & Azuma, M. (1991). Cultural support for schooling: Contrasts between Japan and the United States. *Educational Researcher*, 20(9), 2-8.
- Hiroto, D. S. (1974). Locus of control and learned helplessness. *Journal of Experimental Psychology*, 102, 187-193.
- Hiroto, D. S., & Seligman, M. E. (1975). Generality of learned helplessness in man. *Journal of Personality and Social Psychology*, 31(2), 311.
- Ho, F. C. (2008). Introduction. (in Chinese). In F. C. Ho (Ed.), *School Networking Programme: Reading and Writing Strategies* (pp. 1-11). Hong Kong: The Hong Kong Institute of Education, Quality Education Fund.
- Hood, W., Bradley, G. L., & Ferguson, S. (2017). Mediated effects of perceived discrimination on adolescent academic achievement: A test of four models. *Journal of adolescence*, 54, 82-93.

- Humphrey, N. (2002). Teacher and pupil ratings of self-esteem in developmental dyslexia. *British Journal of Special Education*, 29, 29-36.
- Humphrey, N., & Mullins, P. (2002) Personal constructs and attribution for academic success and failure in dyslexia. *British Journal of Special Education*, 29(4), 196-203.
- Huxley, L., Freeman, E., & Frydenberg, E. (2007). Coping skills training: Implications for educational practice. *The Educational and Developmental Psychologist*, 24(2), 44-68.
- In-Albon, T., Meyer, A. H., Metzke, C. W., & Steinhausen, H. C. (2017). A cross-lag panel analysis of low self-esteem as a predictor of adolescent internalizing symptoms in a prospective longitudinal study. *Child Psychiatry & Human Development*, 48(3), 411-422.
- Ingesson, S. G. (2007). Growing up with dyslexia: Interviews with teenagers and young adults. *School Psychology International*, 28(5), 574-591.
- Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field methods*, 18(1), 3-20.
- Johnson, R. B., & Christensen, L. B. (2004) *Educational research: Quantitative, qualitative, and mixed approaches*. Boston, MA: Allyn and Bacon.



Joiner, T. E., & Wagner, K. D. (1995). Attributional style and depression in children and adolescents: A meta-analytic review. *Clinical Psychology Review*, 15(8), 777-798.

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford.

Kloomok, S., & Cosden, M. (1994). Self-concept in children with learning disabilities: The relationship between global self-concept, academic “discounting,” nonacademic self-concept, and perceived social support. *Learning Disability Quarterly*, 17(2), 140-153.

Lam, F. W. F., McBride-Chang, C., Lam, C. C. C., Wong, S. W. L., Chow, Y., & Doo, S. (2008). Towards early identification of dyslexia in Chinese preschool children: A study on reading and cognitive profile in children with genetic risk of dyslexia in Hong Kong. *Hong Kong Journal of Paediatrics*, 13(2), 90-98.

Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology*, 44, 1-22.

Lazarus, R. S. (1996). The role of coping in the emotions and how coping changes over the life course. In C. Maletesta-Magni & S. H. McFadden (Eds.), *Handbook of emotion, adult development, and aging* (pp. 289–306). New York: Academic Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.

- Leong, C. K., & Ho, M. K. (2008). The role of lexical knowledge and related linguistic components in typical and poor language comprehenders of Chinese. *Reading and Writing, 21*, 559-586.
- Lewis, R., & Frydenberg, E. (2004). Adolescents least able to cope: How do they respond to their stresses? *British Journal of Guidance & Counselling, 32*(1), 25-37.
- Li, J. (2002). A cultural model of learning: Chinese “heart and mind for wanting to learn”. *Journal of Cross-Cultural Psychology, 33*(3), 248-269.
- Li, J. (2005). Mind or virtue: Western Chinese beliefs about learning. *Current Directions in Psychological Science, 14*, 190-194.
- Li, J. (2012). *Cultural foundations of learning: East and West*. New York, NY: Cambridge University Press.
- Licht, B. G., & Dweck, C. S. (1984). Determinants of academic achievement: The interaction of children’s achievement orientations with skill area. *Developmental Psychology, 20*, 628-636.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage Publications.

Lincoln, Y. S., & Guba, E. G. (2000). Paradigmatic Controversies, Contradictions, and Emerging Confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed.) (pp. 163-188). Thousand Oaks, CA: Sage Publications.

Livneh, H., & Martz, E (2007). An introduction to coping theory and research. In E. Martz & H. Livneh (Eds.), *Coping with chronic illness and disability* (pp. 3-27). New York, NY: Springer.

Luk, S. S. K, & Cheng, P.W. (2009). Supporting students with SpLD through applying the three-tier intervention model concepts and practices. *Journal of Basic Education*, 18(2), 87-103. Chinese version only.

Lyon, G., Shaywitz, S. E., & Shaywitz, B. A. (2003). A definition of dyslexia. *Annals of Dyslexia*, 531-14.

Macdonald, S. J. (2010). Towards a social reality of dyslexia. *British Journal of Learning Disabilities*, 38(4), 271-279.

Marshall, M. N. (1996). Sampling for qualitative research. *Family practice*, 13(6), 522-526.



- Marsh, H. W., & Shavelson, R. (1985). Self-concept: Its multifaceted, hierarchical structure. *Educational Psychologist*, 20, 107-123.
- Marsh, H. W., Xu, K., & Martin, A. J. (2012). Self-concept: A synergy of theory, method, and application. In K. R. Harris, S. Graham & T. C. Urdan (Eds.), *APA educational psychology handbook* (pp. 427-458). Washington, DC: American Psychological Association.
- McCullough, G., Huebner, E. S., & Laughlin, J. E. (2000). Life events, self-concept, and adolescents' positive subjective well-being. *Psychology in the Schools*, 37(3), 281-290.
- McInerney, D. (2014). *Educational psychology: Constructing learning* (6th ed.). Frenchs Forest, N.S.W.: Pearson Australia.
- McInerney, D. M., & McInerney, V. (2010). *Educational psychology: Constructing learning* (5th ed.). Frenchs Forest, NSW: Pearson Australia.
- McKenzie, V., Frydenberg, E., & Poole, C. (2004). What resources matter to young people: The relationship between resources and coping style. *The Educational and Developmental Psychologist*, 19(2), 78-96.
- McMillan, J. H. (2004). *Educational research: Fundamentals for the consumer* (4th ed.). Boston, MA: Allyn and Bacon.

- Mertler, C., & Charles, C. (2005). *Introduction to educational research* (5th ed.). Boston, MA: Pearson Allyn & Bacon.
- Monnier, J., Hobfoll, S. E., Dunahoo, C. L., Hulsizer, M. R., & Johnson, R. (1998). There's more than rugged individualism in coping. Part 2: Construct validity and further model testing. *Anxiety, Stress, and Coping, 11*, 247-272.
- Morse, J. M. (2003). Principles of mixed methods and multimethod research design. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 189-208). Thousand Oaks, CA: Sage.
- Nalavany, B. A., Carawan, L. W., & Rennick, R. A. (2011). Psychosocial experiences associated with confirmed and self-identified dyslexia: A participant-driven concept map of adult perspectives. *Journal of learning disabilities, 44*(1), 63-79.
- Novita, S. (2016). Secondary symptoms of dyslexia: A comparison of self-esteem and anxiety profiles of children with and without dyslexia. *European Journal of Special Needs Education, 31*(2), 279-288.
- Nunan, D. (1992). *Research methods in language teaching*. Cambridge: Cambridge University Press.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York, NY: McGrawHill.

Oyserman, D., Elmore, K., & Smith, G. (2012). Self, self-concept, and identity. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (2nd ed.; pp. 69–104). New York, NY: Guilford.

Oyserman, D., & Markus, H. (1996). The self as social representation. In S. Moscovici & U. Flick (Eds.), *Psychology of the social* (pp. 38–70). Berlin, Germany: Rowohlt.

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544.

Parker, J. D. A., & Endler, N. S. (1996). Coping and defense: A historical overview. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 3-23). New York, NY: Wiley.

Patton, M. Q. (2001). *Qualitative research and evaluation methods* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Poon-McBrayer, K. (2014). The evolution from integration to inclusion: The Hong Kong tale. *International Journal of Inclusive Education*, 18(10), 1004-1013.

- Reynolds, W. M., & Miller, K. L. (1989). Assessment of adolescents' learned helplessness in achievement situations. *Journal of Personality Assessment*, 53, 211-228.
- Riddick, B., Sterling, C., Farmer, M., & Morgan, S. (1999). Self-esteem and anxiety in the educational histories of adult dyslexic students. *Dyslexia*, 5, 227-248.
- Rose, L. T., & Rouhani, P. (2012). Influence of verbal working memory depends on vocabulary: Oral reading fluency in adolescents with dyslexia. *Mind, Brain, and Education*, 6(1), 1-9.
- Rosenberg, M. (1986). *Conceiving the self*. Malabar, FL: R.E. Krieger.
- Rosenberg, S., & Gara, M. A. (1985). The multiplicity of personal identity. *Review of Personality and Social Psychology*, 6, 87-113.
- Ross, A., & Willson, V. L. (2017). Paired Samples T-Test. In *Basic and Advanced Statistical Tests* (pp. 17-19). Sense Publishers, Rotterdam.
- Rossmann, G. B., & Wilson, B. L. (1985). Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation review*, 9(5), 627-643.

- Salomons, T. V., Moayed, M., Weissman-Fogel, I., Goldberg, M. B., Freeman, B.V., Tenenbaum, H. C. & Davis, K. D. (2012). Perceived helplessness is associated with individual differences in the central motor output system. *European Journal of Neuroscience*, 35, 1481-1487.
- Scott, M. E., Scherman, A., & Phillips, H. (1992). Helping individuals with dyslexia succeed in adulthood: Emerging keys for effective parenting. *Journal of Instructional Psychology*, 19(3), 197-204.
- Seligman, M. E. P. (1975). *Helplessness: On depression, development, and death*. San Francisco, CA: W. H. Freeman.
- Seligman, M. E., & Maier, S. F. (1967). Failure to escape traumatic shock. *Journal of Experimental Psychology*, 74, 1-9.
- Seiffge-Krenke, I. (2011). Coping with relationship stressors: A decade review. *Journal of research on adolescence*, 21(1), 196-210.
- Sharma, U., Forlin, C., Loreman, T., & Earle, C. (2006). Pre-Service Teachers' Attitudes, Concerns and Sentiments about Inclusive Education: An International Comparison of Novice Pre-Service Teachers. *International journal of special education*, 21(2), 80-93.



- Shaywitz, S. E., Fletcher, J. M., Holahan, J. M., Shneider, A. E., Marchione, K. E., Stuebing, K. K., ... & Shaywitz, B. A. (1999). Persistence of dyslexia: The Connecticut longitudinal study at adolescence. *Pediatrics*, *104*(6), 1351-1359.
- Shek, D. T. (2004). Chinese cultural beliefs about adversity: Its relationship to psychological well-being, school adjustment and problem behaviour in Hong Kong adolescents with and without economic disadvantage. *Childhood*, *11*(1), 63-80.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, *22*(2), 63-75.
- Sin, K. F. (2001). Developing remedial support in Hong Kong secondary schools. In Y. C. Cheng, M. M. C. Mok, & K. T. Tsui (Eds.), *Teaching effectiveness and teacher development: Towards a new knowledge base* (pp. 275–296). Tai Po, Hong Kong: The Hong Kong Institute of Education & Kluwer Academic.
- Sin, K. F. (2008). Preface (in Chinese). In F. C. Ho (Ed.), *School Networking Programme: Reading and Writing Strategies* (pp. IV). Hong Kong: The Hong Kong Institute of Education, Quality Education Fund.
- Singer, E. (2008). Coping with academic failure, a study of Dutch children with dyslexia. *Dyslexia*, *14*(4), 314-333.

- Skrzypiec, G., Askill-Williams, H., Zhao, X., Du, W., Cao, F., & Xing, L. (2018). Predictors of Mainland Chinese students' well-being. *Psychology in the Schools*, 55(5), 539-554.
- Smallheer, B. A. (2011). *Learned helplessness and depressive symptoms in patients following acute myocardial infarction* (Unpublished Doctoral dissertation). Nashville, TN: Vanderbilt University.
- Smith, J. K. (1984). The problem of criteria for judging interpretive inquiry. *Educational Evaluation and Policy Analysis*, 6, 379-391.
- Smith, J. A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative research in psychology*, 1(1), 39-54.
- Smith J. A., Flowers P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. Los Angeles, CA: Sage.
- Stampoltzis, A., & Polychronopoulou, S. (2009). Greek university students with dyslexia: An interview study. *European Journal of Special Needs Education*, 24(3), 307-321.
- Stenbacka, C. (2001). Qualitative research requires quality concepts of its own. *Management decision*, 39(7), 551-556.



- Stets, J. E., & Burke, P. J. (2003). A sociological approach to self and identity. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 128–152). New York: Guilford Press.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications, Inc.
- Street, S., & Isaacs, M. (1998). Self-esteem: Justifying its existence. *Professional School Counseling, 1*, 46-50.
- Streiner, D. L. (2003). Starting at the beginning: An introduction of Coefficient Alpha and Internal Consistency. *Journal of Personality Assessment, 80*(1), 99-103.
- Sun, J., Li, Z., Buys, N., & Storch, E. A. (2015). Correlates of comorbid depression, anxiety and helplessness with obsessive-compulsive disorder in Chinese adolescents. *Journal of affective disorders, 174*, 31-37.
- Swann, W. B., & Bosson, J. (2010). Self and identity. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *Handbook of Social Psychology* (pp. 589-628). Hoboken, NJ: Wiley.
- Szeto, E., Cheng, A. Y., & Sin, K. K. (2018). Still not inclusive? A critical analysis of changing the SENCO policy in a Chinese school community. *International Journal of Inclusive Education, 1*-21.



Tabachnick, B., & Fidell, L. (2013). *Using multivariate statistics* (6th ed.). Boston: Pearson Education.

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches* (Vol. 46). Thousand Oaks, CA: Sage.

Teddlie, C., & Tashakkori, A. (2003). Major issues and controversies in the use of mixed methods in the social and behavioral sciences. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 3-50). Thousand Oaks, CA: Sage Publications.

Thuen, E., & Bru, E. (2004). Coping styles and emotional and behavioral problems among Norwegian Grade 9 students. *Scandinavian Journal of Educational Research*, 48, 493-510.

Tuckwiller, E. D., Dardick, W. R., & Kutscher, E. K. (2017). Profiles of and correlations among mindset, grit, and optimism in adolescents with learning disabilities: A pilot study. *Journal of Interdisciplinary Studies in Education*, 6(1), 43-62.

Turner, D. (2010). Qualitative interview design: A practical guide for novice investigators. *The Qualitative Report*, 15(3), 757-760.

- Turner, S. F., Cardinal, L. B., & Burton, R. M. (2017). Research design for mixed methods: A triangulation-based framework and roadmap. *Organizational Research Methods*, 20(2), 243-267.
- Tweed, R. G., & Lehman, D. R. (2002). Learning considered within a cultural context: Confucian and Socratic approaches. *American Psychologist*, 57, 89-99.
- Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative–quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, 37(1), 21-54.
- Walling, M. D., & Martinek, T. J. (1995). Learned helplessness: A case study of a middle school student. *Journal of Teaching in Physical Education*, 14(4), 454-466.
- Wang, Q., & Li, J. (2003). Chinese children's self-concepts in the domains of learning and social relations. *Psychology in the Schools*, 40(1), 85-101.
- Waschbusch, D. A., Sellers, D. P., LeBlanc, M., & Kelley, M. L. (2003). Helpless attributions and depression in adolescents: The roles of anxiety, event valence, and demographics. *Journal of Adolescence*, 26(2), 169-183.

- Wentzel, K. R., & Caldwell, K. (1997). Friendships, peer acceptance, and group membership: Relations to academic achievement in middle school. *Child Development*, 68, 1198-1209.
- Wilgenbusch, T., & Merrell, K. W. (1999). Gender differences in self-concept among children and adolescents: A meta-analysis of multidimensional studies. *School Psychology Quarterly*, 14(2), 101.
- Xie, X., Yan, Y., Wang, G., Han, X., & Gai, X. (2018). The relation between multiple living environment profiles and adolescent self-identity: A person-centered approach. *Child Indicators Research*, 1-14.
- Yang, C. C., Holden, S. M., Carter, M. D., & Webb, J. J. (2018). Social media social comparison and identity distress at the college transition: A dual-path model. *Journal of adolescence*, 69, 92-102.
- Zelege, S. (2004). Self-concepts of students with learning disabilities and their normally achieving peers: A review. *European Journal of Special Needs Education*, 19, 145-170.
- Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Theory and Practice in Language Studies*, 3(2), 254-262.



Appendix A

Questionnaire

本人為香港教育大學博士研究生，現正進行一項對學生讀寫問題的研究，評估在主流學校的學生們對讀寫問題的情況。

此問卷只供學生填寫。此問卷調查是資料搜集的部份工作，目的是瞭解受訪者對讀寫問題的看法。

現誠邀你 參與本研究計畫的問卷調查。所有個人資料及回答內容將絕對保密，只作研究用途，完成研究後本問卷將會銷毀。

謝謝你的支持和參與。

填表須知

1. 每題並沒有標準答案，請根據您自己的理解作答。
2. 請用深色鉛筆或圓珠筆作答。
 正確的填塗方法：●
 錯誤的填塗方法：⊗ ⊙ ⊖
3. 若要作出修改，請將填錯的答案完全擦去。

個人資料

- | | | |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 1 性別
<input type="radio"/> 男

<input type="radio"/> 女 | 2 年齡
<input type="radio"/> 12 歲或以
下
<input type="radio"/> 13

<input type="radio"/> 14

<input type="radio"/> 15 或以上 | 3 就讀年級
<input type="radio"/> 中一

<input type="radio"/> 中二

<input type="radio"/> 中三 |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|



請回答以下所有問題，塗黑 ● 最代表你意見的答案。

關於讀寫的問題		非 常 不 同 意	些 微 不 同 意	些 微 同 意	非 常 同 意
1.	大多數人都明白有讀寫障礙會有什麼感覺的	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	學校的老師能夠理解我的困難	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	我希望我沒有讀寫障礙	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	如果我肯努力，我可以得到與別人一樣的成績	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	有讀寫障礙使我感到困擾	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	如果我肯努力，我在數學科會有好表現	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	我的讀寫障礙，使我不能在學校有好表現	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	如果我肯努力，我在中文科會有好表現	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	在我來到這個學校前，我曾經因為讀寫障礙而沮喪	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	這所學校的老師，理解我有讀寫障礙的困難	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	如果我肯努力，我有能力在考試做得好	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	讀寫障礙是使人困擾	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	整體來說，我的自我感覺良好	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	有很多事比有讀寫障礙更糟	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	無論我有多用功，在學校裡我總比不上沒有讀寫障礙的同學	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16.	我一直希望我的讀寫障礙會消失	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
17.	只有患有讀寫障礙的人，才會明白讀寫障礙患者的感受	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
18.	很多時候，我會因為有讀寫障礙而沮喪	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
19.	我的未來，是看我現在做得有多好	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
20.	我總是被我的讀寫障礙阻礙	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
21.	我的母親明白我有是讀寫障礙的感覺	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
22.	我的父親明白我有是讀寫障礙的感覺	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
23.	自從來到這間學校，我已經取得了很大的進步	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
24.	我知道如何克服讀寫障礙	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
25.	大部分的時間，我想做回自己	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

當我遇到問題時……

26.	將我的問題告訴別人，這會找到解決的方法	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
27.	解決問題是我的最佳本領	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
28.	有問題時，我會努力地工作	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
29.	我會擔心問題會在我身上發生	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
30.	有問題時，我會花更多的時間與朋友在一起	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
31.	有問題時，我會改善與別人的關係	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
32.	有問題時，我希望奇蹟會在我身上發生	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

33.	有問題時，我會跟和我有同樣問題的人在一起	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
34.	有問題時，找方法來發泄；例如，大哭、尖叫、飲酒、濫藥	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
35.	我沒有辦法去解決問題	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
36.	為了逃避問題，我會把自己關起來	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
37.	有問題時，把自己看成是發生了故障	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
38.	有問題時，不讓別人知道自我的感受	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
39.	有問題時，我希望得到幫助和指引，使一切都可以解決	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
40.	有問題時，我看到事情光明的一面，並想像一切都是美好的	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
41.	有問題時，我會尋求專業人士幫忙	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
42.	有問題時，我會騰出時間進行休閒的活動	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
43.	有問題時，我會去做運動	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

- 多謝完成問卷 -



Appendix B

Interview protocol

1. 你的主要困難是什麼？生活上，學習上？
2. 用什麼方法解決學習的問題？
3. 誰幫助你更了解讀寫障礙？他們如何幫你？
4. 何時知道有讀寫障礙的特徵，當時感覺是如何？知道自己有讀寫障礙後？放鬆了？羞愧？讀寫障礙有什麼好處呢？
5. 你對未來有什麼希望？或者你希望未來做什麼作？
6. 在學習的路途上，你覺得最大的問題是什麼？
7. 舉一個你認為最有效解決問題方法。
8. 若有機會重頭再來，你會否選擇你仍有學習障礙嗎？
9. 你對自己有幾大的信心？在什麼方面有自信？
10. 遇上什麼問題，你一定不會找他幫忙？
11. 「讀寫障礙」這個詞語對你來說，有什麼意思？可以用一件事或一件物件來比喻嗎？
12. 比較一下你的中、小學學習？

Appendix C

School consent form

香港教育大學
特殊教育與輔導學系
參與研究同意書(學校)
香港初中學生習得無助(Learned Helplessness)、讀障身份(Dyslexic identity)
及應對策略(Coping Strategies)的研究

本校同意參加由冼權鋒教授負責監督，呂梓良先生負責執行的研究計劃。
他們是香港教育大學學生/教員。

本人理解此研究所獲得的資料可用於未來的研究和學術發表，然而本人有
權保護本校學生/教師的隱私，其個人資料將不能洩漏。

本人對所附資料的有關步驟已經得到充分的解釋，本人理解可能會出現的
風險，本人是自願讓本校學生/教師參與這項研究。

本人理解本人及本校學生/教師皆有權在研究過程中提出問題，並在任何時
候決定退出研究，更不會因此引致任何不良後果。

本人同意讓香港教育大學學生於本校進行與上述研究項目有關之研究。

簽署: _____

校長/ 學校代表*姓名: _____ (教授/博士/先生/女士/小姐*)

職位: _____

學校名稱: _____

日期: _____

(*請刪去不適用者)

香港教育大學
特殊教育與輔導學系
參與研究同意書(學校)

香港初中學生習得無助(Learned Helplessness)、讀障身份(Dyslexic identity)
及應對策略(Coping Strategies)的研究

誠邀 貴校參加冼權鋒教授負責監督，呂梓良先生負責執行的研究計劃。他們是香港教育大學學生/教員。

本研究主要目的為分析跟香港中學生的習得無助、讀障身份及應對策略。本研究會透過問卷調查訪談來收集不同持份者的意見，包括學生和老師的看法，整個研究計劃為期一年。本研究將會邀請十五所學校參與，約一百五十名初中學生會被邀請參加填寫問卷部分，當中每所學校的三名學生亦會被邀請參與面談部分；填寫問卷需時約二十分鐘，而面談則為三十分鐘。

本研究不期望對參與者有任何的潛在風險和不適，閣下享有充分的權利在研究開始前或後決定退出這項研究，更不會因此引致任何不良後果。凡有關閣下的資料將會保密，一切資料的編碼只有研究人員得悉。

本研究所得資料將會用於論文之用，所有資料將會在研究完成後銷毀。

如閣下想獲得更多有關這項研究的資料，請與呂梓良先生聯絡，電話 29486347 或聯絡她/他們的導師冼權鋒教授，電話 29487758。

如閣下對這項研究有任何意見，可隨時與香港教育大學人類實驗對象操守委員會聯絡(電郵：hrec@eduhk.hk；地址：香港教育大學研究與發展事務處)。

謝謝閣下有興趣參與這項研究。

呂梓良
首席研究員

Appendix D



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Participants consent form

香港教育大學
特殊教育與輔導學系
參與研究同意書

香港初中學生習得無助(Learned Helplessness)、讀障身份(Dyslexic identity)
及應對策略(Coping Strategies)的研究

本人_____同意參加由冼權鋒教授負責監督，呂梓良先生執行的研究項目。

本人理解此研究所獲得的資料可用於未來的研究和學術發表，然而本人有權保護自己的隱私，本人的個人資料將不能洩漏。

本人對所附資料的有關步驟已經得到充分的解釋，本人理解可能會出現的風險，本人是自願參與這項研究。

本人理解我有權在研究過程中提出問題，並在任何時候決定退出研究，更不會因此引致任何不良後果。

參加者姓名:

參加者簽名:

日期:

有關資料

香港初中學生習得無助(Learned Helplessness)、讀障身份(Dyslexic identity) 及應對策略(Coping Strategies)的研究

誠邀閣下參加冼權鋒教授負責監督，呂梓良先生負責執行的研究計劃。他們是香港教育大學學生/教員。

本研究主要目的為分析跟香港中學生的習得無助、讀障身份及應對策略。本研究會透過問卷調查訪談來收集不同持份者的意見，包括學生和老師的看法，整個研究計劃為期一年。本研究將會邀請十五所學校參與，約一百五十名初中學生會被邀請參加填寫問卷部分，當中每所學校的三名學生亦會被邀請參與面談部分；填寫問卷需時約二十分鐘，而面談則為三十分鐘。

本研究不期望對參與者有任何的潛在風險和不適，閣下享有充分的權利在研究開始前或後決定退出這項研究，更不會因此引致任何不良後果。凡有關閣下的資料將會保密，一切資料的編碼只有研究人員得悉。

本研所得資料將會用於論文之用，所有資料將會在研究完成後銷毀。

如閣下想獲得更多有關這項研究的資料，請與呂梓良先生聯絡，電話 29486347 或聯絡她/他們的導師冼權鋒教授，電話 29487758。

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謝謝閣下有興趣參與這項研究。

呂梓良
首席研究員