Examining the Roles of Teachers' Explanatory Styles Related to their Teaching Experience on Students with Emotional and Behavioural Difficulties (EBD)

by

LUAN, Xinchang

A Thesis Submitted to

The Education University of Hong Kong

and The University of Lorraine

in Partial Fulfillment of the Requirement for

the Degree of Doctor of Philosophy

August 2021

Statement of Originality

I, LUAN, Xinchang, 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.

Abstract

The explicit emotions and behaviours of students can create a lot of challenges and difficulties for teachers. This research project critically examined the mediation roles of teachers' explanatory styles. The project involved two phases. Phase One was a quantitative study which focused on a proper Chinese tool for measuring teachers' general explanatory styles. The new Chinese measurement tool was translated and validated with good reliability and was applied in Phase Two of this research project. Phase Two used a mixed methods approach to test the research hypotheses in order to address three research questions. For the qualitative research aspect of Phase Two, nine teachers from two ordinary schools and one special school took part. Their explanations about their teaching experiences were explored through individual interviews. The findings revealed that teachers from all schools have optimistic explanatory styles about the difficulties and challenges they face. For the quantitative research part, 198 teachers were recruited from ordinary primary schools, ordinary secondary schools, special primary schools and special secondary schools in Hong Kong. The research found that teachers had low helplessness levels concerning their work and life, and low helplessness levels related to teaching EBD students. There were no differences found amongst the different types of schools. Teachers' anxiety levels were low. Meanwhile, teachers from special schools had significantly lower levels of anxiety than those from ordinary schools related to teaching EBD students. Finally, teachers' general explanatory styles, especially the Internality-Externality dimension of explanatory styles was examined as a good mediator of teachers' different anxieties.

Key Words: Explanatory Style, Emotional and Behavioural Difficulties (EBD), Helplessness, Optimism, Anxiety

Acknowledgements

I would like to express my gratitude and appreciation to the people who supported me through the dissertation process.

I would like to extend my sincere gratitude towards **Prof. SIN Kuen Fung Kenneth**, my supervisor, for being an excellent model. His wisdom, patience and leadership made my study journey meaningful. My deepest thanks also go to **Prof. Jérôme DINET**, my co-supervisor at the Université de Lorraine, for offering untiring support to overcome a lot of the problems. I am also thankful to **Prof. LO Sing Kai, Dr. YAN Zi and Dr. Diana KOWK**, my vice-supervisors, who have provided advice and guidance throughout the research process. Special thanks should go to **Dr. Frances Ward QUINLESS** and **Dr. LAI Chuk Ling Julian** for their authorisation of using the LHS and the CLOT-R in this research project.

Though for ethical reasons the schools and teachers must remain anonymous, I extend my sincere thanks to the teachers and principals of the schools, as well as all the participants of this research project. Appreciation also goes to **Mr. GAO Fengzhan**, who offered support related to data analysis. This research project would not have been possible without the support of **Mr. LEUNG Siu Tong** and **Dr. NG Shuk Ying Lydia**. I would like to express my special thanks to the student helpers. Their efficiency is truly commendable.

Finally, I owe a special debt of thanks to my mom and dad, you gave me the freedom to accomplish anything and everything I want to experience in my life. To my husband, thank you for the patience, love and happiness you bring to my life. To my dearest friend XU Jing, you are my friend in adversity.

Table of Contents

List of Figures

List of Tables

List of Abbreviations

ADHD	Attention Deficit/Hyperactivity Disorder
ASD	Autism Spectrum Disorders
CCRM	Central Co-ordinating Referral Mechanism
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CLH-EBD	Chinese Learned Helpless about teaching Students with Emotional and Behavioural Difficulties
CLHS	Chinese Revised Learned Helpless Scale
CLOT-R	Chinese Revised Life Orientation Test
EBD	Emotional and Behavioural Difficulties
EFA	Exploratory Factor Analyses
GAD-7	General Anxiety Disorder-7
GAD-7-EBD	General Anxiety Disorder-7 with the Context of Teaching EBD Students
GlSp	Globality-Specificity
InEx	Externality
KMO	Kaiser-Meyer-Olkin

LHS	Learned Helplessness Scale
PD	Physical Disability
RMSEA	Root Mean Square Error of Approximation
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modeling
SEN	Special Educational Needs
SpLD	Specific Learning Difficulties
SSD Schools	Schools for Social Development
SSRC(SSD)	Special Schools cum Resource Centres
StInst	Stability-Instability
TLI	Tucker-Lewis Index;

Chapter 1: Introduction

1.1 Research Background

This research project explores teachers' explanations related to their experiences with students with emotional and behavioural difficulties (EBD), examining the mediation role these explanations may play. Compared with peers of the same age, students with EBD can often present emotional disturbances and behavioural problems, which are led by different reasons in different settings (The Curriculum Development Council, n.d.). In schools, EBD students' explicit emotions and behaviours can create a multitude of challenges and difficulties for teachers. In previous studies, teachers have expressed their exhaustion associated with coping with EBD students in Hong Kong (Equal Opportunities Commission, 2012; Hong Kong Professional Teachers' Union & Division of Clinical Psychology, 2018). In this thesis, the research critically analyses teachers' difficulties and opinions from the theory of explanatory styles. The outcomes cover new interpretations and explanations about teachers' needs, as well as providing suggestions to help students with EBD.

The first issue that this research focuses on is the teachers' explanatory styles. The theory of explanatory styles is about the way in which people explain good and bad events (Seligman, 2006). Different explanatory styles are built up from past experiences. Learned helplessness explanatory styles or optimistic explanatory styles may predict a person's emotions (Fineburg, 2010; Georgiou, Christou, Stavrinides and Panaoura, 2002; Manassero, García-Buades, Torrens, Ramis, Vázquez, & Ferrer, 2006; Seligman, 2006; Wang, Hall & Rahimi, 2015). A key question to answer is, if the explanatory styles are affected by teachers' past experiences and have an influence on teachers' emotions, what are the teachers' explanatory styles and how do these act as bridges to link up teachers' emotions and their experiences of teaching EBD students?

Another issue explored in this research project focuses on the diversified views of teaching students with EBD amongst teachers. As we know, there is more than one side to everything. Just like bad things can be an engine of growth, and good things can also have negative effects. It is meaningful to understand the teachers' opinions from different perspectives. For example, the experience of teaching EBD students may not be easy, however, are there any other experiences that teachers have? Chong and Au (2008) indicated that most teachers in Schools for Social Development (SSD Schools) have a high to very high level of confidence in teaching students with EBD. The SSD schools are special schools. In Hong Kong, EBD students normally study in ordinary schools. Later, when the students are identified with moderate or severe EBD they are referred to these SSD schools. Although the school contexts are different, it is still worth exploring and comparing the explanatory styles of teachers from SSD schools and ordinary schools.

1.2 Research Questions and Hypotheses

The research questions examine in the research project are:

1. How do teachers view their teaching experiences with EBD students in ordinary schools and SSD schools?
2. What are the teachers' explanatory styles in both ordinary schools and SSD schools?
3. What is the role of the teachers' explanatory style?

The first research question is explored with qualitative research methods, interviews to form a deep understanding of the research area. The second and the third research questions are examined mainly through quantitative research methods. The research hypotheses are:

1. Teachers from SSD schools are expected to have lower levels of learned helplessness and anxiety about teaching EBD students compare to teachers from ordinary schools.

2. Teachers' learned helplessness explanatory styles mediate the effects of their anxiety to EBD students and general anxiety.
3. Teachers' anxiety about teaching EBD students mediates the effects of their learned helplessness explanatory styles toward EBD students and general learned helplessness explanatory styles.

1.3 Research Significance

This is a research that crosses the disciplines of inclusive education, special education and positive psychology. The significances of this research project are outlined below.

This research explains teachers' difficulties from a different perspective: their explanatory styles. Teachers' explanatory styles, which are internal factors, are examined and discussed in this research. Previously, a number of research studies have examined the external factors which affect teachers, such as workplace conditions, the workload, support from schools or government, schools' administration involvement, teacher-training, parents, or students' SEN types (Buckles, 2018; Equal Opportunities Commission, 2012; Hong Kong Professional Teachers' Union & Division of Clinical Psychology, 2018; Qutaiba, 2010, 2011; Ma & MacMillan, 1999; Talbott, Zurheide, Karabatsos, & Kumm, 2021). To teachers, the main difference between external factors and internal factors is to what extent they can control these factors. For example, in research conducted by the Hong Kong Professional Teachers' Union & Division of Clinical Psychology (2018), teaching EBD students is a high-ranking source of causing teachers pressure. The EBD students are external factors to teachers. With the explanatory styles theory, teaching EBD students is one of the triggers that can cause depression. These triggers are filtrated by teachers' explanatory styles before

having affections on teachers. Meanwhile, in the filter processes, teachers can take control by themselves.

The specific explanatory styles that relate to teaching EBD students are explored in this research project. Very little research has focused on teachers' explanatory styles toward teaching students with EBD. Boyer (2006) examined the relationship between the achievement of prospective early childhood and upper elementary female teachers. Hall and Smith (1999) and Smith, Hall and Woolcock-Henry (2000) surveyed the explanatory styles of secondary vocational teachers in Georgia.

Another significance of this research is the comparison between ordinary schools and special schools. This research project collected data from both ordinary schools and SSD schools. The differences between the two are explored. Even that most of the students in SSD schools mainly have a moderate or severe degree of EBD. However, some of them were with the mild degree, who soon returned to ordinary schools. For the students in ordinary schools, their students are mainly at the mild degree of EBD. At the same time, some of them had a moderate or severe degree of EBD, who would be referred to SSD schools. With this background, it still worth exploring the differences between two type of schools. The results may offer a good reference to discuss the exiting "dual-track mode" in Hong Kong. Meanwhile, there are many misunderstandings about EBD students and SSD schools. For example, students with EBD, or students from SSD schools, are often viewed as extremely naughty and even evil. A principal of a secondary school expressed his worry about the SSD school's bad image and objected to the re-provisioning of an SSD school next to their school (Ip, 2016; Zhao, 2016). To change this stereotype may be an implicit intention of this research.

It is also helpful if teachers understand more about their own learned helplessness explanatory styles before teaching students who have learned helplessness. There is a wide body of research that has focused on students' learned helplessness. With a rough search of the Eric ProQuest database, which prescribed a limit to "student*" and "learned helpless*" in the abstract, 417 results can be found. The results include journal articles, book chapters and doctoral dissertations. It is believed that, if teachers have more knowledge about learned helplessness, it may be easier for them to have empathy about their students to provide a good quality of education.

Two Chinese measurement tools have been developed in the research project. This can be used widely in Chinese speaking areas to explore teachers' explanatory styles. The first measurement tool is the Chinese Revised Learned Helpless Scale (CLHS). The CLHS has been translated into Chinese and validated. The second measurement tool is the Chinese Learned Helpless about teaching Students with Emotional and Behavioural Difficulties (CLH-EBD). The items in CLH-EBD were used to measure teachers' explanatory styles toward teaching EBD students, and has also been designed and validated.

1.4 Layout and Arrangement

This thesis is split into six chapters. In Chapter 1, the introduction to the research project and its significance is outlined. In Chapter 2, the literature review and theoretical framework are elaborated. This chapter contains a review of the important findings and concepts about inclusive education and teachers' opinions. It also organizes the concepts and theories that are used in the research, such as the concept of EBD and the theory of the learned helplessness explanatory style. In the secondary part of Chapter 2 the framework is discussed.

Chapter 3 contains the methodology. The reasons of using qualitative and quantitative methods are explained, as well as how these methods are used to answer the research questions. Further details on issues such as participants and instrumentations are described in Chapter 4 and Chapter 5. It is mainly due to the different phases of the research project were with different research methods. In Chapter 4 and Chapter 5, Phase One and Phase Two are presented. The main aim of Phase One is to develop a Chinese tool to measure teachers' explanatory styles. Phase Two aims to answer the research questions and research hypotheses. Details covering the data analysis and results are provided. Chapter 6 contains the discussion and conclusions, which includes the research findings, implications and study limitations.

Chapter 2: Literature Review and Theoretical Framework

2.1 Literature Review

This literature review chapter begins with the broad topics of inclusive education and teachers' opinions toward inclusive education. Later, the chapter moves on to explore the gap in the research of understanding teachers' opinions to students with EBD, before the chapter focuses on the theoretical framework.

Inclusive Education

Education is a human right that everyone has (UNESCO, 2020; United Nations, n.d.). The importance of education has been broadly noticed. As Nelson Mandela said, education is the most powerful weapon which you can use to change the world (Ratcliffe, 2017). With the development of the modern economy, the area of education ushered in a new era. As well as special education, a new page called inclusion was created.

Inclusive education is the international trend of achieving equal learning opportunities in education. To raise the idea of inclusion may attempt to include students from special education, to establish collaborative and supportive communities that everyone should be able to enjoy the same experiences, to respect each other and to learn from individual differences (Hammond & Ingalls, 2003; Salend, 2001). There are many definitions of inclusive education. Different organizations, governments or academics may have their own understanding and perspectives on the definitions of inclusive education. UNESCO (2017) emphasized that inclusive education is the "process of strengthening the capacity of the education system to reach out to all learners". Hornby (2014) defined that:

> "Inclusive education is a multidimensional concept that includes the celebration and valuing of difference and diversity and consideration of human rights, social justice

> and equity issues, as well as the social model of disability and a sociopolitical model of education."

Another scholar, Fineburg (2010), wrote that:

> "Inclusive education is philosophically viewed as a belief system, a way of living together, an attitude and disposition a school intentionally teaches by example. In practical terms, it refers to schools and classrooms which welcome and appropriately educate a large diversity of students with the aim that all children have an opportunity to reach their fullest potential."

Since 1990, the Education and Youth Affairs Bureau (DSEJ) of Macau had already started the implementation of inclusive education in public funded schools, and the students studying in inclusive classes are those who need special help in learning, training or rehabilitation (So, 2005). In Hong Kong, the term "integrated education" was adopted in official documents, but the term "inclusive education" has been widely used in society. It is practiced as "providing support for ordinary schools in catering for students with special educational needs (SEN)" since 1997 (Education Bureau, 2014; Equal Opportunities Commission, 2012). Lee and Manzon (2014) argued that both cultural habitus and structural contexts may contribute to educational equity and quality in Hong Kong.

Teachers' Opinions toward Inclusive Education

Teachers play important roles in education and in inclusive education. In the movement towards the inclusive setting (which is different from other educational reforms), teachers need not only to have a relevant knowledge base, but also positive dispositions (Forlin, 2010). As the frontline staff, their opinions are one of the most important factors that can lead to the success of inclusive education (Hammond & Ingalls, 2003; Pearson, Lo, Chui, & Wong, 2003; Waldron, McLeskey, & Pacchiano, 1999). Teachers' positive opinion has been

identified as one of the important prerequisites for inclusive education, and their teaching quality determines students' motivation in school (Chong & Au, 2008; Cook, 2002; Forlin, Loreman, Sharma, & Earle, 2009; Kalyva, Gojkovic, & Tsakiris, 2007; Yan & Sin, 2014). If it is impossible to overlook teachers when discussing education, what are teachers' opinions about inclusive education? As the proverb goes: this is easier said than done. This research aims to examine teachers' comments after practicing the inclusive education.

It is very difficult to define teachers' opinions toward inclusive education with a simple concept. Teaching opinion covers a wide spectrum. Some articles showed that teachers might have a positive opinion or are partially committed to the idea of inclusion (Lacruz-Pérez, Sanz-Cervera, & Tárraga-Mínguez, 2021; Pearson, Lo, Chui, & Wong, 2003; Waldron, McLeskey, & Pacchiano, 1999), but have reservations about the arrangements to have students with SEN in their own classrooms (Campbell, Gilmore, & Cuskelly, 2003; Hammond & Ingalls, 2003; Pearson, Lo, Chui, & Wong, 2003). The research of Pearson, Lo, Chui, & Wong (2003) found that teachers were bothering and struggling with SEN students. This is consistent to the view of Forlin, Douglas and Hattie (1996) that "educators appeared to have strong beliefs regarding inclusive practices and these beliefs did not necessarily reflect the momentum towards greater inclusion".

There are many reasons for teachers' low acceptance to inclusive education in practice. For example, teachers may worry about the lack of collaborative opportunities after prompting inclusive education (Hammond & Ingalls, 2003). Appropriated levels of teaching experience are also key concerns. Teachers with more experience, or less good experience, become less accepting (Forlin, Douglas, & Hattie, 1996). Specialist training, meanwhile, has a positive

influence on teachers' perceptions (Lacruz-Pérez, Sanz-Cervera, & Tárraga-Mínguez, 2021; Tristani & Bassett-Gunter, 2020).

For teachers' opinions to the students with SEN, they depend on the degree of severity and the types of SEN. There are many types of SEN students that have been placed in ordinary schools due to policies to prompte inclusive education, such as students with specific learning difficulties (SpLD), autism spectrum disorders (ASD), attention deficit/hyperactivity disorders (ADHD), physical disabilities (PD) etc. Teachers' opinions towards inclusive education appears to be positive about including students with mild disabilities but negative when discussing students with moderate or severe disabilities (Forlin, Douglas & Hattie, 1996; Yan & Sin, 2014). Pearson, Lo, Chui and Wong (2003) indicated that there is a clear hierarchy of preference amongst teachers to SEN. Teachers felt more challenges and had lower levels of acceptance to the students with an intellectual disability, learning disability and/or behavioural problems, than the students with a physical disability (Forlin, Douglas & Hattie, 1996; Pearson, Lo, Chui, & Wong, 2003).

The Side Effect of Inclusive Education to Teachers in Hong Kong

The issue of teachers' burnout and/or well-being has been discussed in a lot of research, with an aim to overcome teaching difficulties. Burnout is "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people-work' of some kind" (Maslach & Jackson, 1981). Well-being refers to optimal psychological functioning (including both affective and cognitive components) and experience (involving comparative private experience with regard to self-perceived quality of an individual's life) (Dunn, 2002; Ryan & Deci, 2001). With increasing challenges, teachers have worryingly high levels of stress and burnout, and the difficulties only increase among teachers beginning their careers

(Farber, 1984; Fontana & Abouserie, 1993; Gray, Wilcox, & Nordstokke, 2017; Pillay, Goddard, & Wilss, 2005). Ma and MacMillan (1999) showed that gender, experience and workplace conditions influence teachers' job satisfaction. Some researchers have emphasized the significance of support from school leaders on workload, autonomy and social interaction etc. (Ghavifekr & Pillai, 2016; Gray, Wilcox, & Nordstokke, 2017; Sarros & Sarros, 1992).

Yet, how do teachers' complex opinions about inclusive education or SEN students effect themselves? Take two research studies in Hong Kong as examples:

- The first report ("Study on equal learning opportunities for students with disabilities under the integrated education system") collected opinions from stakeholders toward students with SEN under inclusive education in Hong Kong, by the Equal Opportunities Commission in 2012. It was noted that students with emotional and behavioural difficulties (EBD) may be the most unpopular type of SEN students. In the report, teachers said they were exhausted in coping with the EBD students. Respondents raised concerns about EBD students' academic performance, attention in class, disturbing behaviours affecting peers' learning and their negative self-concept. (Equal Opportunities Commission, 2012)
- Another report in 2018 showed similar results, that dealing with students with SEN and EBD were the top fourth and sixth sources of stress. It is worthy to note that, in this report, 58.2% of teachers rated their work stress as "very huge" while another 23% teachers rated it as "extremely huge". At the same time, 52.2 % of teachers participants showed symptoms of moderate or serious depression. The symptoms included the feelings of hopelessness, fatigue, sleep disorder etc. (Hong Kong Professional Teachers' Union & Division of Clinical Psychology, 2018)

These results suggest that the difficulties in teaching EBD students is worth examining in detail.

To Find a Way for Teachers about EBD Students

Are there any different ways for teachers and EBD students to handle this dilemma? Heflin and Bullock (1999) indicated teachers' hope for behavioural improvements amongst EBD students. They interviewed teachers from both ordinary schools and special schools. On the negative side, compared to special-school teachers, ordinary-school teachers were unsure of their abilities to facilitate such changes or to provide appropriate instructions to EBD students (Heflin & Bullock, 1999). Vlachou, Dimitra and Metallidou (2014) found that, compared to teachers from ordinary schools, the teachers from special schools viewed student difficulties as more manageable. This is consistent with research from Chong and Au (2008) that 74% of teachers in Schools for Social Development (SSD schools) have a high to very high level of confidence in teaching students with EBD. SSD schools were special schools in Hong Kong. The students with moderate or severe EBD were referred to these SSD schools. Some people may argue that special schools have different contexts to ordinary schools. However, it is helpful to identify the factors causing the differences. These diversified opinions among teachers are worth noting.

The focus of this research project is on the reasons that have caused the diversified views on teaching students with EBD amongst teachers in both ordinary schools and special schools. To promote inclusive education, it is important to understand students' special needs, as well as to understand teachers' needs. It is the fact that an inclusive setting has taken a large group of diverse students and placed them into the same classroom. This fact is one of the huge difficulties or challenges which teachers need to overcome. There are benefits in finding new

directions to understand the reasons that cause teachers' difficulties when teaching students with EBD in inclusive settings. On one hand, to explain the difficulties of teaching students with SEN. On the other hand, to find a new direction to help teachers. This research project aims to find a new way to understand the different view of teachers toward students with EBD.

2.2 Contextual Background about SSD Schools and EBD Students

SSD Schools in Hong Kong

School-age children with EBD receive different types of service in Hong Kong from the government. A "dual-track mode" was adopted in delivering special education and inclusive education in Hong Kong. As part of this there are both ordinary schools and special schools. Students with more severe or multiple disabilities are referred to special schools; other students with SEN may attend ordinary schools (Education Bureau, 2014). Within these guidelines, most EBD students with normal or above average intellect study in ordinary schools and receive different support services from ordinary schools. For special cases, such as students with a severe degree of EBD, they receive some other support outside of their ordinary schools (Education Bureau, 2017). These support services include day placement in SSD schools, residential placement, after-school care programme in residential services and short-term adjustment programmes (Education Bureau, 2018). SSD schools mainly operate the day placement service. Some SSD schools also operate short-term adjustment and after-school care programmes.

Three are eight SSD schools with different programmes for EBD students in Hong Kong. Three of these are girls' schools. The other five schools are boys' schools. Most of the SSD schools provide accommodation for the students. In SSD schools, more classes are secondary

level. Some schools have classes at primary level, and most of the primary level classes are Grade 4 to Grade 6. Today, there are no Grade 1 level classes. According to the information on the webpage of Special School Profiles 2021, there are 61 special schools in Hong Kong (Table 1). They are 42 Schools for children with intellectual disability, eight SSD schools, seven schools for children with physical disability, two schools for children with visual impairment, one school for children with hearing impairment and one hospital school. It is worth paying attention to the fact that SSD schools are the second most school in school year of 2020/21.

Table 1
Special schools in Hong Kong

	The number of schools
Schools for Children with Intellectual Disability	42
Schools for Social Development	8
Schools for Children with Physical Disability	7
Schools for Children with Visual Impairment	2
Schools for Children with Hearing Impairment	1
Hospital School	1
Total	61

The teaching experience of teachers from SSD schools is valuable and special. Compared to other kinds of special schools, such as schools for children with intellectual disability, students in SSD schools may return and be reintegrated into ordinary schools with a satisfactory improvement in behaviours (Education Bureau, 2018). With this consideration, SSD schools' teaching can be linked to ordinary schools. Beginning from the 2015/16 school year, the Education Bureau of Hong Kong promoted a School Partnership Scheme which aimed to support ordinary schools in catering for student diversity. As part of the scheme, some SSD schools were invited to support ordinary schools about the returning students and

inclusive facilitation as Special Schools cum Resource Centres [SSRC(SSD)] (Education Bureau, 2020).

The teachers from SSD schools were invited to join this research and to have their teaching experiences considered. The main focus of this research project is to understand schoolteachers. With this focus, when SSD schools or teachers in SSD schools are discussed, they are the SSD schools' setting of day placement and the teachers who are supporting the day placement setting only.

Students with EBD

Who are the students with EBD? EBD students were also known as maladjusted children in the 1960s in Hong Kong. Compared with peers of the same age, children with EBD present maladjustment which often leads to emotional disturbances and behavioural problems when they are in families, schools or other social settings (The Curriculum Development Council, n.d.). According to a document from the Hong Kong Education Bureau (2017), students' emotional and behavioural difficulties can be divided into mild, moderate and severe levels. Take disruptive behaviours in class as an example. If the student is occasionally running around, screaming, making odd noises, or deliberately provoking others with words or actions, etc. and if the student has had a positive response to teachers' intervention, then this can be classed as a mild degree of EBD (Education Bureau, 2017). If the student habitually and wilfully becomes a nuisance with no marked improvement, even after intervention, then this is classed as a moderate degree (Education Bureau, 2017). For the students with severe EBD, they have seriously aggressive and destructive behaviours, and can completely lose control in emotional dysregulation (Education Bureau, 2017). Meanwhile, the behaviours and emotions persist despite intensive interventions (Education Bureau, 2017). All these

behaviours and emotions may be with purposes to against to parents or teachers; and/or draw attention from parents or teachers. The behaviours or emotions may be caused by their other special needs, such as ASD, ADHD, SpLD etc.

In this project, teachers' explanatory styles toward all type of EBD students are examined. For the participant-teachers from ordinary schools, their students are mainly at the mild degree of EBD. At the same time, some of their students had a moderate or severe degree of EBD, who would be referred to SSD schools. For the participant-teachers from SSD schools, their students mainly have a moderate or severe degree of EBD. Meanwhile, some of their students were the EBD students with the mild degree, who soon returned to ordinary schools.

2.3 Theoretical Framework

The Importance of Teachers' Opinions Toward Students

Teachers' opinions are very important for students. Take EBD students who are discussed in this research as an example. As mentioned previously, the students who exhibit problems and experience difficulties with moderate or severe levels in the area(s) of school, family or personal/social aspects, may be suitable for SSD schools (Education Bureau, 2017, 2018). But how does this operate in reality? Students study in ordinary schools due to policies of inclusive education. When the students who may have EBD are identified, ordinary schools search different internal or external support services for the students. One of those support services for the students with moderate or severe EBD is referral through the Central Co-ordinating Referral Mechanism (CCRM) (Education Bureau, 2013). Students may study in SSD schools upon the parents' consent for long-term or short-term. The CCRM is jointly managed by the Education Bureau and the Social Welfare Department, for vetting and arranging appropriate services for students with EBD (Education Bureau, 2013). Just like

Talbott, Zurheide, Karabatsos and Kumm (2021) have argued, teachers' assessment of students' behaviours are essential components of evidence-based practice in schools. Therefore, all these complicated processes begin from teachers' comments to students.

Teachers' professional capacity has been proven in a wide body of research. Papatheodorou (1995) revealed that teachers define behavioural problems taking into account a child's developmental stage and well-being, as well as the teaching and learning processes. Compared to parents, teachers' professional duties, such as reporting students' ADHD symptoms, are more reliable (Hartman, Rhee, Willcutt, Bruce, & Pennington, 2007). However, it needs to be noted that implicit biases can be activated involuntarily (Staats, Capatosto, Wright, & Jackson, 2016). Teachers are professionals, but everyone possesses implicit biases (Staats, Capatosto, Wright, & Jackson,2016). Teachers' implicit personality theories and opinions not only influence themselves, but also the way they process information and interactions with students (Papatheodorou, 1995; Staats, Capatosto, Wright, & Jackson,2016).

Implicit biases are "the opinions or stereotypes that affect our understanding, actions, and decisions in an unconscious manner" (Staats, Capatosto, Wright, & Jackson, 2016). Although implicit biases can be positive or negative, it has been established that they have broad negative impacts, such as the ability to recall the negative aspects of a child's behaviours (Staats, Capatosto, Wright, & Jackson,2016; Talbott, Zurheide, Karabatsos, & Kumm, 2021). Yull (2015) mentioned that for the people who are not familiar with autism, symptoms may appear to be violent or dangerous.

When prompting inclusive education, also it is important to understand these biases. This is because of their connection to structural inequality (Staats, Capatosto, Wright, & Jackson,2016). Most people have an implicit bias against members of traditionally disadvantaged groups (Sunstein & Jolls, 2006). Teachers' implicit biases vary depending on their own gender and educational levels (Levin, 2019). Buckles (2018) encouraged schools to provide professional development, not just for supporting their classrooms, but also to raise teachers' bias awareness.

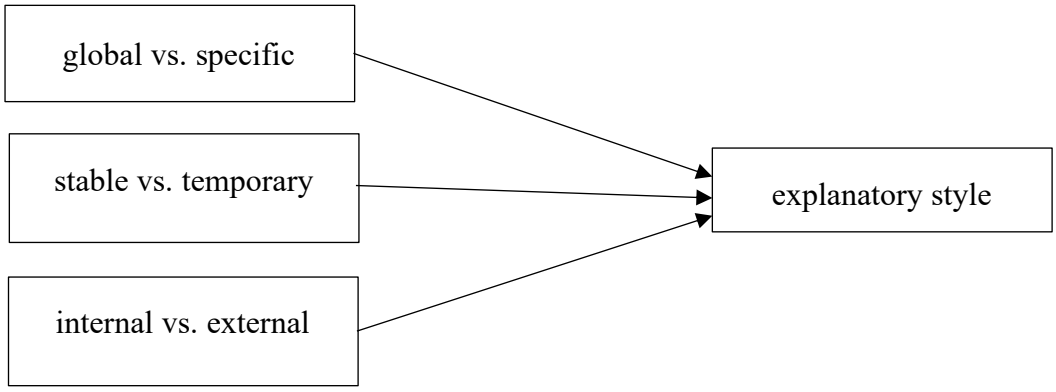
To be aware of bias is important. To know more about teachers' biases, such as what biases they have and how they may affect them, is also important. Jackson (2001) and Levin (2019) found that students' gender influences teachers' ratings on students' behaviours. In State of the Science: Implicit Bias Review, Staats, Capatosto, Wright and Jackson (2016) reviewed the research on racial biases from teachers toward students. For children's ADHD, teachers often described it as a medical discourse (Bradley, 2009). Buckles' (2018) study showed that the biases toward marginalized students not only focused on race and gender, but also on student labelled status such as general education and special education. These findings were consistent with the findings of Talbott, Zurheide, Karabatsos, & Kumm (2021), who argued that the explanatory style of observers of youth behaviours (e.g., parents and teachers) is external to themselves and internal to the children, such as attributed the behaviours to the internal characteristics of the child, to the child's biology (e.g., race, gender, age) or disposition.

The Theory of Teachers' Explanatory Styles

Explanatory style is "the way in which people explain good and bad events that occur in their lives" (Seligman, 2006). These events may impact on a person's future self-esteem and

agency chronically, broadly, and detrimentally (Fineburg, 2010). People tend to offer similar and particular sorts of explanations for different events (Klein, 2008; Maras, Moon, & Gridley, 2014; Peterson, Buchanan & Seligman; 1995). For example, Burns and Seligman's (1989) research found that an explanatory style for negative events may persist across a person's lifespan. Explanatory style has been used as both an explanatory tool for understanding individuals' self-concepts and their likely reactions, and as a predictive model for whether a person will feel helpless or will persist under given circumstances (Fineburg, 2010; Maras, Moon, & Gridley, 2014).

Figure 1
Structural model for explanatory style



The explanatory style of people is elaborated in three dimensions (Figure 1): global vs. specific, stable vs. temporary (or permanent vs. temperate), and internal vs. external (Seligman, 2006; Seligman, Reivich, Jaycox, & Gillham, 1995).

- The pattern of "global and specific" is about different situations.
    - For example, teachers' understandings about EBD students: whether EBD students have poor academic performances in all subjects, or some of them.
- The pattern of "stable and temporary" is about time.

    - For example, when EBD students are disciplined one time, will teachers predict if they will perform in the same way next time or frequently?
- The pattern of "internal and external" is about internal traits and external factors.
    - For example, the teachers' explanations of misbehaviours of EBD students: will teachers blame their own teaching strategies or find other factors external to the teachers themselves, such as students' families or the environment of schools.

Some children and adolescents are likely to attribute their behaviours to external characteristics (e.g., the environment and social contexts) (Talbott, Zurheide, Karabatsos, & Kumm, 2021). For those who misbehave and have difficulties in coping with both positive and negative events in school, there is a tendency to explain bad events as due to internal, stable and global causes, while good events are explnained due to external, unstable and specific causes (Tam, 2003).

Optimism is an important variable in positive psychology. It is also a word which is used frequently in daily life. In Chinese, optimism includes two characters, one is about happy and glad; the other is about opinion and idea. Optimism can also be defined as a kind of explanatory style, which is the generalized expectation or disposition that good things will happen (Gillham & Reivich, 2004; Rasmussen, Scheier, & Greenhouse, 2009), or "a dispositional trait which mediates between external events and a person's interpretation" (Seligman & Csikszentmihalyi, 2000). The optimistic explanatory style is external ("It's someone else"), unstable ("It's short-lived") and specific explanations ("It's only going to influence this") for bad events (Peterson & Steen, 2002; Peterson, Buchanan, & Seligman, 1995). Some issues about pessimism are easily reminded when talking about optimism. There have been some debates about the relationships between optimism and pessimism. Different

from the common understanding, the research of Scheier and Carver (1985) suggested that optimism and pessimism are not opposite sides of a dimension. In fact, most of the time people expect both positive and negative possibilities at the same time. Thereby, to simplify the meaning of the word optimism as used in this research project, the concept of pessimism is not discussed.

Terms such as “attributional style” or “attribution” are similar to the explanatory style, and are mixed in research or questionnaires. In this research project, the term “explanatory style” is mainly used. Explanatory style developed from a learned helplessness theory and the three dimensions were reformulated by Abramson, Seligman, and Teasdale according to the learned helplessness model in 1978 (Fineburg, 2010). The Learned Helplessness Scale is discussed and applied later.

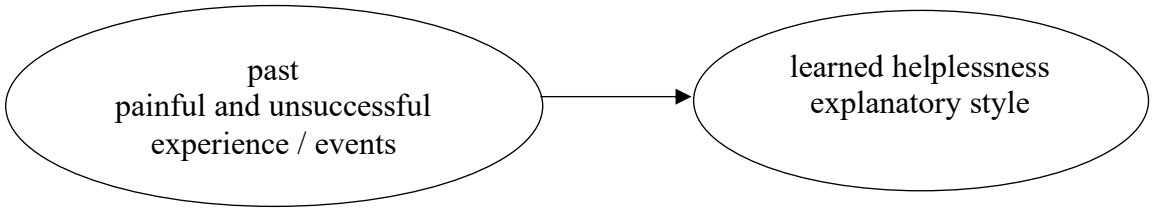
The Development of Teachers’ Learned Helplessness Explanatory Style

Learned helplessness was an accidental result of a dog experiment that was designed for learning theory in the mid-1960s. In that experiment, the first step was to provide an electrical shock for a certain time period whatever the dog gave a response or not (Maier &Seligman, 2016). The objective helplessness existed due to no difference to the outcome with respect. In the second step, even in different conditions, the dog did not make attempts to stop the shock, which could be stopped easily with a simple jump. The dog “detected” the outcome that was a lack of contingency, and it “expected” the outcome was independent from its responses (Maier & Seligman, 2016). A subjective helplessness was “learned” from step one. Based on this animal experiment, the effect of learned helplessness was raised. It regards to:

> "the fact that organisms (both human and infrahuman) exposed to aversive events in one situation often fail to escape that event in a different situation where escape is possible" (Maier, 1980; Quinless & Nelson, 1988).

The learned helplessness of human beings is more complex than that shown in dogs. Maier and Seligman (1976) said that human's learned helplessness effects on both instrumental and cognitive tasks, after reviewing a variety of studies. In 2016, Maier and Seligman supplemented the learned helplessness theory, arguing that the passivity in response to a shock is not learned but by default. In other words, the helplessness is not learnt from the experiences of past failures, but is due to organisms (both human and infrahuman) not knowing how to control continuing failure. Organisms learned that whatever they do, it cannot help, so they prolong aversive stimulation. The assumption here is teachers may implicitly learn helplessness with their past painful and unsuccessful experiences of teaching students with EBD (Figure 2). The process of learned helplessness had obviously struck a chord with our repeated failure experiences. Burns (2000) suggested that special education labels could be linked to learned helplessness. Qutaiba (2011) examined a negative correlation between school involvement and learned helplessness among special education teachers in the Israeli Arab sector. Maier and Seligman (2016) supported the argument that passivity can be overcome by learning to control. Filippello, Larcan, Sorrenti, Buzzai, Orecchio and Costa (2017) perceived that parental and teacher psychological control were positively related with students' learned helplessness.

Figure 2
The assumption of learned helplessness explanatory style

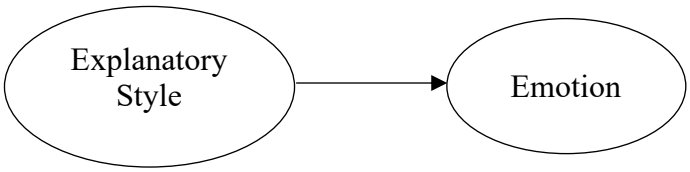


Conceptual Framework

A wide range of research has explored the relationship between emotions and different explanatory styles. Studies have proved emotional exhaustion corresponded to global events; depersonalization corresponds to internal, stable and global (Manassero, García-Buades, Torrens, Ramis, Vázquez, & Ferrer, 2006). Individuals with an optimistic explanatory style believe that their behaviours do affect outcomes (Peterson & Park, 2007); their self-confidence and skills increased when they take higher challenges (Gillham & Seligman, 1999). Lai (1995) proved that optimistic subjects were not easily affected by hassles. Wang, Hall and Rahimi (2015) found that when teachers attributed their stress simply to internal factors, they had significantly higher levels of emotional exhaustion and a higher likelihood of quitting. The research of Georgiou, Christou, Stavrinides and Panaoura (2002) showed that teachers expressed more anger when attributing low achievements to the students' low efforts than when attributing their issues to their low abilities. The young adolescents with learning difficulties reported learned helplessness, defensive pessimism and feelings of test anxiety (Černe & Juriševič, 2018). Fineburg (2010) found that optimists' explanations of bad events mediate their efficacy in predicting burnout. Teachers' attributions might predict levels of burnout (Bibou-Nakou, Stogiannidou, & Kiosseoglou, 1999). Explanatory styles also mediate teachers' sense of efficacy in predicting teacher burnout, providing a way to develop efficacy

using positive and negative events (Seligman, 2006). In conclusion, different explanatory styles may predict a person's emotions, as shown in Figure 3.

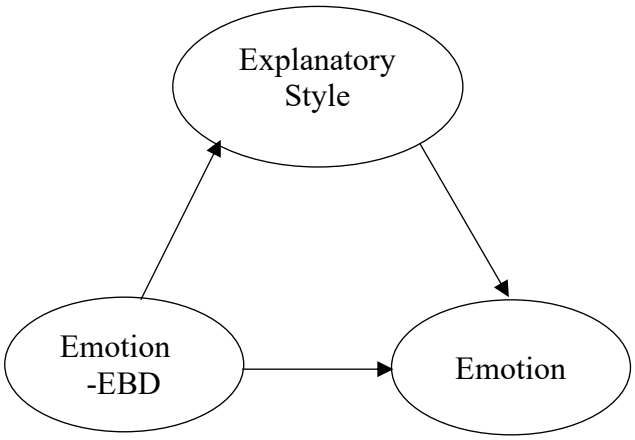
Figure 3
The relationship between emotions and different explanatory styles



Studies have shown that teachers are generally more frustrated by students with externalizing than internalizing behavioural problems (Chong & Ng, 2011; Liljequist & Renk, 2007; Phares & Danforth, 1994). Students with EBD are often charged with misconduct or disturbance behaviours in the classroom, as well as having a disaffected opinion towards learning. It will be meaningful to understand the explanatory styles and emotions that teachers hold toward students with EBD. It is also worth studying the relationships among their general explanatory styles and emotions, and their specific explanatory styles and emotions surrounding teaching EBD students.

First, the emotions surrounding teaching EBD students may have an effect on teachers' general emotions. Model 1 in Figure 4 suggests that explanatory styles may be a mediator of teachers' emotions when teaching EBD students. From the model, it may be shown that different explanatory styles have impacts on emotions. Meanwhile, these emotions may also build up the different explanatory styles of teachers.

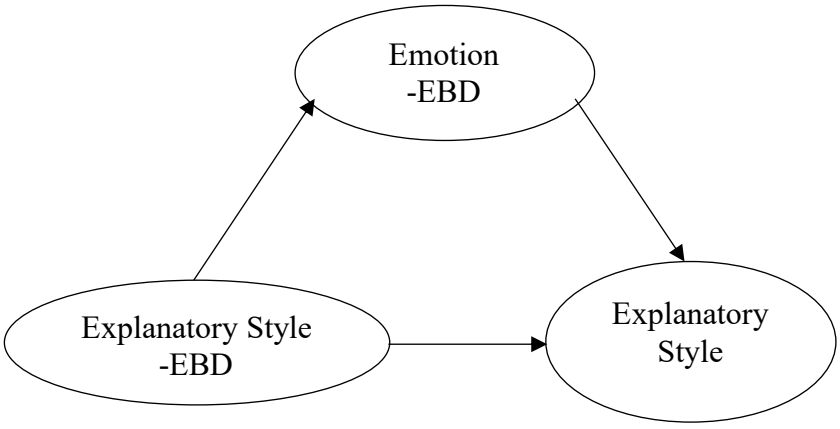
Figure 4
The new model 1



Note. Emotion-EBD = the emotions surrounding teaching EBD students.

Second, the special explanatory styles that emerge when teaching EBD students may have an effect on teachers' general explanatory styles. It is understood that the special explanatory styles that emerge when teaching EBD students also have an effect on emotions when teaching EBD students. With these assumptions, model 2 in Figure 5 illustrates that the emotions that emerge when teaching EBD students may be a mediator of teachers' special explanatory styles when teaching EBD students and their general explanatory styles.

Figure 5
The new model 2



Note. Explanatory style-EBD = the special explanatory styles about teaching EBD students.

The model 1 is about examining the role of teachers' explanatory styles. The model 2 is about exploring how teachers' specific explanatory styles and emotions toward teaching EBD students have effect on their general explanatory styles.

2.4 Summary

Teachers play one of the most important roles in promoting inclusive education. Yet during the process they face a lot of difficulties. Some research has explored and confirmed teachers' difficulties that emerge when teaching students with EBD. The current research project attempts to understand that difficulties with the explanatory style theory by creating two new models. The two models are:

Model 1: Explanatory styles are a mediator of teachers' different emotions.

Model 2: Emotion is a mediator of teachers' different explanatory styles.

Before examining the models, two research questions have been proposed. First, it is necessary to understand teachers' different explanatory styles, their explanatory styles in general about their work/life, and specific to their teaching on EBD students. Second, according to previous research, there are differences between teachers from ordinary schools and special schools. The explanatory styles of teachers from both ordinary schools and special schools have been explored and compared. Within examining the new models, there are three research questions:

1. How do teachers view their teaching experiences with EBD students in ordinary schools and SSD schools?
2. What are teachers' explanatory styles in both ordinary schools and SSD schools?
3. What is the role of the teachers' explanatory style?

This research in the area of inclusive education, special education and psychology. Data from inclusive schools and special schools were collected. Participants' psychological features and explanatory styles are measured. By answering the above research questions, this research project hopes to fill some gaps. First, this research focuses on the internal factors of teachers which are their explanatory styles. The external factors, such as workplace conditions and school support are discussed in some other research. The role of their explanatory styles, especially their explanatory style about teaching EBD students, have so far received little attention. Second, this research project collected data from both ordinary schools and special schools. If there are any differences identified between schools, the reasons which caused the differences will be meaningful for further exploration. Finally, Chinese measurement tools have been translated and developed, which have not been found in the other Chinese research.

Chapter 3: Methodology

In the previous chapters, the background of the research project has been discussed and some relevant key issues have been provided. This chapter briefly explains the methodology that has been used throughout the research project. Further details on issues such as participants and instrumentations are described in Chapter 4 and Chapter 5. This is due to the research project being divided into two phases with different research methods. At the end of this chapter, the ethical issues are discussed.

3.1 Research Design

This research project was naturally a descriptive and exploratory survey type. The main aim of this research project was to examine the roles of teachers' explanatory styles related to their teaching experiences with students with EBD. To achieve this research aim, there were four research objectives: to prepare two Chinese tools and to answer two research questions.

First, since the target population was Chinese, a Chinese tool about measuring teachers' general explanatory styles was prepared. With searching, the researcher decided to translate and revise an existing English measurement tool into a Chinese scale.

Second, another Chinese tool that measured teachers' specific explanatory styles toward teaching EBD students was developed. Meanwhile, the first research question that "How do teachers view their teaching experiences with EBD students in ordinary schools and SSD schools?" was answered. Since research question 1 was a phenomenological research question, it was answered through the use of a qualitative research method. In the social sciences, researchers tend to use qualitative research methods to seek a deeper understanding or some underlying meanings (Lune & Berg, 2017). With these considerations, teachers'

experiences and their explanations were uncovered for this research question through interviews. Creswell (2007, p60) summarised some major procedures for conducting phenomenological research, such as determination of using a phenomenological approach, identification of a phenomenon, assumptions, data collection and analysis stages, textural descriptions, and composite descriptions. To obtain trustworthiness of the data and to guarantee dependability of interviews, the following steps were taken:

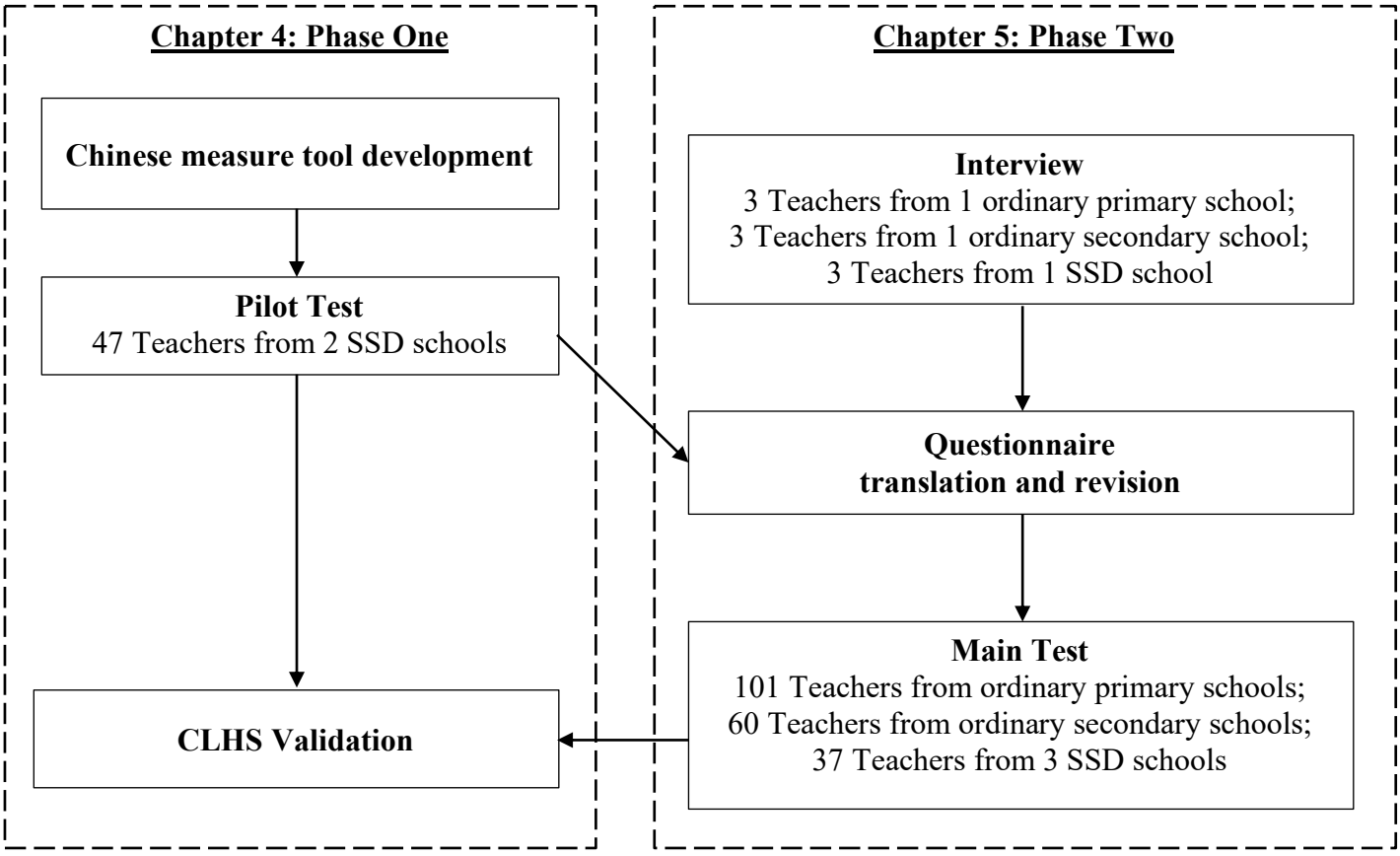
- Nine teachers from three schools (one primary school, one secondary school and one SSD school) were recruited through the use of the purposeful sampling method. Teachers were interviewed individually. At the same time, to provide the resources for interviews, seven teachers' daily teaching processes were also observed.
- Semi-structured individual interviews were conducted. The open-ended questions mainly focused on the topics of their teaching experiences, context and explanations.
- For the data analysis step, the significant statements and sentences were highlighted and quoted. The themes that emerged from the data were then summarised.
- Textural and structural descriptions were used when editing and revising the new Chinese measurement and the questionnaire for the main test. The common essential experiences of teachers were also recorded.

For the last research objective and the main research aim, these were completed using the main test. A quantitative approach was used with a questionnaire to answer research question 2 and research question 3. Lune and Berg (2017) said that quantitative methods of data collection and analysis are used to measure patterns and social structures. The questionnaire of the main test, aside from the two Chinese measurement tools, also contained some other relevant scales and items. An independent T-test was conducted to compare the differences in explanatory styles and emotions between teachers from ordinary schools and SSD schools.

These findings addressed Research Hypothesis 1. The Structural Equation Modelling (SEM) technique was used to estimate the models in Research Hypotheses 2 and 3.

To fully express the content of this research project well, the thesis is divided into two phases and has been written into two chapters. A summary of the research design and writing planning process is shown in Figure 6. The first Chinese scale is modified and validated in Chapter 4. The development of the second Chinese tool and the three research questions are discussed in Chapter 5.

Figure 6
Research Design and thesis writing planning



Educational research has absorbed several competing views of the social sciences, such as the traditional and interpretive views, critical theory, complexity theory etc. (Cohen, Manion, &

Morrison, 2002). A positivist outlook supports the idea that researchers play an observer role, whereas an anti-positivist view imposes the need for researchers to become involved (Cohen, Manion, & Morrison, 2002). Each perspective has its own advantages and disadvantages. It is most valuable to combine the features of both approaches in a mixed methods approach. The objectivist (or positivist) approach, such as that taken when undertaking surveys, has been used in this research project to validate the Chinese tool about measuring teachers' general explanatory styles in the Phase One. The subjectivist (or anti-positivist) approach, as often used when carrying out individual interviews, has been used to explore teachers' teaching experiences with EBD students in different schools and to develop another Chinese tool about measuring teachers' specific explanatory styles of teaching EBD students. Finally, the objectivist approach was used again to address the second and third research questions. The mixed method from qualitative method to the quantitative method was used in the Phase Two.

3.2 Subjects of the whole Research Project

The subjects for this research project are teachers who teach students with EBD. As already mentioned, a "dual-track mode" of policy has been adopted in Hong Kong. EBD students with normal or above average intellect mainly study in ordinary schools. Some EBD students study in SSD schools with different special arrangements. With this background, all teachers from ordinary schools and SSD schools can be counted within the target population for this research. In the original proposal, a cluster sampling method was used. For the SSD schools, there were only eight SSD schools in Hong Kong. All of these were invited to take part in this research project. For the ordinary schools, there were around 507 primary schools and 445 secondary schools in Hong Kong. Each of these was given a number and was randomly selected by a computer. Each of the selected school's principal received an invitation to take

part in this research. Finally, two SSD schools joined the pilot test, and another three SSD schools joined the main test through the cluster sampling method. For the recruitment of ordinary schools, due to the outbreak of Covid-19 the pilot test in ordinary schools was cancelled. Meanwhile, a convenience sampling method was used as a replacement to collect data from teachers at ordinary schools for the main test.

3.3 Operational Definitions

The ***explanatory styles*** are teachers' general explanatory styles. These are measured with the Chinese Revised Learned Helpless Scale (CLHS). The CLHS was translated and validated in Phase One of this research project. It included three subscales: Internality-Externality, Globality-Specificity and Stability-Instability. The CLHS is a 16-item scale scored using a 6-point Likert-type scale, with items listed from "Strongly Disagree" to "Strongly Agree". The learned helplessness level is rated from 16 (low) to 96 (high).

The ***special explanatory styles toward teaching EBD students*** are measured with the Chinese Learned Helpless about teaching Students with Emotional and Behavioural Difficulties (CLH-EBD). The CLH-EBD was designed in Phase Two of this research project. The CLH-EBD is a 6-item scale scored using a 6-point Likert-type scale, with items listed from "Strongly Disagree" to "Strongly Agree". The learned helplessness level about teaching EBD students is rated from 6 (low) to 36 (high).

Teachers' ***emotions*** are about teachers' general emotions. These are measured with the General Anxiety Disorder-7 (GAD-7). The GAD-7 has 7 items covering the emotions experience with the previous two weeks. It uses a 6-point Likert-type scale from "Strongly Disagree" to "Strongly Agree". The anxiety levels from 7 (low) to 42 (high).

Teachers' ***emotions surrounding teaching EBD students*** are the scores of the GAD-7-EBD. The GAD-7-EBD is a test adopted from GAD-7, with the context of teaching EBD students. All seven items have an emphasis on "teaching students with EBD" at the beginning. It also uses a 6-point Likert-type scale from "Strongly Disagree" to "Strongly Agree". Teachers' anxiety level about teaching EBD students are rated from 7 (low) to 42 (high).

3.4 Ethics of the Studies

To ensure the research project's compliance with the guidelines on research ethics, the project underwent an ethical review and was approved by the Human Research Ethics Committee of the university before the individual interviews were conducted. When the research project was in progress, all relevant guidelines were followed. A consent form was delivered and explained to each participant, which emphasised the information of the research project, the participants' voluntary rights, potential risks, and any confidential issues.

3.5 Summary

The research design contains both qualitative and quantitative research methods. For the qualitative research method, interviews were used to uncover a deeper understanding about teachers' experiences and explanations. For the quantitative research method, surveys were used to examine teachers' explanatory styles and their roles in a broad way. In addition, a Chinese measurement scale was developed and validated. Further details of how Phase One and Phase Two were conducted, such as on subjects, instruments, data collection etc., are provided in Chapter 4 and Chapter 5 respectively.

Chapter 4: Phase One

The main aim of this Phase One was to develop and validate a Chinese tool to measure teachers' explanatory styles at a general level. The general level here means teachers explanatory reasons for their life and work. The Chinese scale that was adopted is named the Chinese Revised Learned Helpless Scale (CLHS). It was translated from an English scale, known as the Learned Helplessness Scale (LHS). This scale was used to provide answers to the different research questions of this thesis.

The structure of this chapter is as follows:

- First, information about the LHS and the translation of the CLHS is provided.
- Second, the pilot test of CLHS that was conducted is outlined.
- Finally, the validation processes of CLHS are described in detail.

4.1 Learned Helpless Scale Translation and Revision

There are two tools that are frequently used to measure adults' explanatory styles or attributions: the Learned Helplessness Scale (LHS) (Quinless & Nelson,1988) and the Attributional Style Questionnaire (ASQ) (Peterson & Barrett, 1987). They both appear in English. The ASQ is a self-reporting questionnaire which contains 12 hypothetical situations. Participants are requested to read each situation and vividly imagine the situations happening to the participants themselves (Houston, 2020). The researcher had discussions with different professionals and frontline teachers. It was difficult to generalise some common or similar stories or situations which occurred in either primary schools, secondary schools, or SSD schools. Since this research project's participants were from all types of schools, the ASQ was not explored further in this thesis. The other tool named LHS was instead used and translated into Chinese.

Learned Helplessness Scale (LHS) (Quinless & Nelson, 1988)

The Learned Helplessness Scale (LHS) has been verified as a useful screening or diagnostic instrument to identify learned helplessness states, and was developed by Quinless and Nelson in 1988. Qutaiba (2011) used LHS and found a negative correlation between the school's involvement and the learned helplessness of teachers of special education in the Arab Sector. Smallheer (2011) used LHS in his thesis to examine the relationship between helplessness and depressive symptoms. LHS has also been applied in the research of Landry, Gifford, Milfont, Weeks and Arnocky (2018) to explore the role the learned helplessness explanatory style played between environmental concerns and behaviours. Their use of LHS has similar purposes to this thesis. The researcher had contact with Dr. Frances Ward Quinless, who is one of the authors of LHS, and received authorisation to adopt the scale for this research project.

The LHS is a 20-item four-point Likert scale. The items cover five aspects of helplessness, mainly from the attributional learned helplessness theory, including Internality-Externality (five items), Globality-Specificity (five items), Stability-Instability (six items), beliefs concerning inherent ability-inability to control or predict the outcomes of situation (two items), and an individual's choice of situation in which the person intentionally participates (two items). The internal consistency was tested with both healthy adult samples and clinical samples, and the reliability coefficients were .82 or above (Quinless & Nelson,1988). The Cronbach alpha of LHS in the research of Qutaiba (2011) with special schools' teachers was r=.90. Smallheer (2011) examined the correlations between LHS and Beck's Hopelessness Scale (HS) (r=.252) and Rosenberg's Self-Esteem Scale (SES) (r=-.622).

Chinese Revised Learned Helpless Scale (CLHS)

The CLHS was created through two main steps, which were translation and back-translation. The first translation step was to translate the LHS from English into Chinese. Two pre-service teachers were invited to act as translators during this step. They were year 5 undergraduate students whose major subject was in English Education and minor subject in translation and Chinese or inclusive education and information community technology. They had backgrounds and training in education and English, as well in the area of translation and special education. They were appropriate translators. The translators were asked to translate the scale into Chinese with the formal written style. The original meanings were kept, as well as any positive or negative wordings. The two translators completed their first draft of translation work independently before the group discussions began. In the group discussion meetings, the items were progressed through one by one. Revisions were made based on the Chinese culture. The translators were requested to complete the Chinese scale one week later, to double check all the meanings and wordings of the Chinese scale. Most of their translation work was based on a consensus through discussion with each other. There were only two issues left:

- The term of "feel" in LHS: According to the Chinese understanding, this is a word with the meaning of either "sense, emotion" or "think, opinion".
- Item 6: "I have the ability to solve most of life's problems": The meaning of "life" in Chinese is either "a daily life" or "the whole life of a person".

The researcher consulted four professionals who were two teachers, one principal and one professor from ordinary schools, a special school and one university with the Chinese scale and special issues. Emails were also sent to Dr. Ward. In the new version, the Chinese terms refer to "thinking" had been used to represent the English term of "feel". Item 6 used Chinese

words to represent “the whole life of a person”. With the advice from professionals and Dr. Ward, some other words were modified and the first draft of CLHS was confirmed. This step improved the content validity of the CLHS.

To maintain consistency with the original English version, a back translation procedure was also conducted. Another two pre-service teachers were invited to translate the first draft of CLHS back from Chinese into English. They were also year 5 undergraduate students with a major subject in English Education and minor subject in translation and inclusive education. The two translators were first requested to translate the first draft of Chinese scale separately. A group meeting was then conducted. Any perceived discrepancies were discussed item by item. After revising one or two Chinese words, the second version of CLHS was confirmed. The translators were requested to complete the Chinese scale one week later to double check all meanings and wordings of the Chinese scale.

Since Chinese responses love to pick a middle answer, the even number, a 6-point rating scale was adopted to encourage participants to choose one side. The items had the options of “Strongly Disagree” “Disagree” “Slightly Disagree”, “Slightly Agree”, “Agree”, and “Strongly Agree”.

4.2 Pilot Test

This pilot test aimed to check the items and the criterion validity of CLHS. The CLHS was used as part of the questionnaire in later studies. Leon, Davis and Kraemer (2011) have argued that to conduct a pilot study is to examine the feasibility of an approach to be used on a larger scale.

Participants and Procedure

Teachers from two SSD schools were recruited. The teachers had professional knowledge and skills of teaching students with EBD. Invitation letters were sent to the two SSD schools' principals. School teachers or social workers were assigned to assist the researcher. All teachers received paper consent forms and questionnaires. At last count, 48 copies of the questionnaires were collected, and the valid sample was 47. The completed questionnaires were further analysed with IBM SPSS version 26.

Measurements

CLHS was the Chinse version of LHS which translated to measure teachers' learned helplessness explanatory styles. All 20 items were designed based on the attributional learned helplessness theory (Quinless & Nelson,1988). Meanwhile, the Chinese items were given comments by different experts before being confirmed. The CLHS was a 20-item scale scored using a 6-point Likert-type one from "Strongly Disagree" to "Strongly Agree".

The Chinese Revised Life Orientation Test (CLOT-R) was used to determine concurrent, criterion-related validity of the CLHS. The first reason of using the CLOT-R was that the CLOT-R is a reliable and valid measure to assess Hong Kong Chinese's optimism or their generalised positive outcome expectancies (Lai & Cheung, 1998). Another reason was that the optimism measured by CLOT-R has theoretical linkages with the learned helplessness explored with the CLHS. The CLOT-R was translated and adapted by Dr. Lai and his colleagues (Lai & Cheung, 1998; Lai et al., 2005). It is mainly based on the English version of the Life Orientation Test Revised (LOT-R) of Scheier, Carver and Bridges (1994). The 6-item CLOT-R consists of three positively worded items (e.g., overall, I expect more good things happen to me than bad.) and three negatively worded items (e.g., I rarely count on

good things happening to me.) (Lai et al., 2005). The CLOT-R exhibited an acceptable Cronbach alpha of the scale around .72 (Lai et al., 2005; Lai & Mak, 2009). The original CLOT-R had five points from Strongly Disagree to Strongly Agree. In this pilot research, items were asked with a 6-point Likert-type one, similar to the CLHS.

Table 2
Demographic characteristics of the participants in pilot test of Phase One

Variable/characteristic	N	%	Mean	SD
School Type				
Special School (Primary)	40	85.11		
Special School (Secondary)	7	14.89		
Gender				
Male	27	57.4		
Female	18	38.3		
Missing Data	2	4.3		
Age				
25 or below	4	8.5		
26-35	21	44.7		
36-45	11	23.4		
46 or above	10	21.3		
Missing Data	1	2.1		
Qualification				
Degree	30	63.8		
Master or above	17	36.2		
Teaching experience (year)			11.22	8.06
Missing Data	3	6.4		
Job Ranking				
Vice Principal	2	4.3		
Panel head	14	29.8		
Teacher	27	57.4		
Social Worker / Counsellor	2	4.3		
Others	1	2.1		
Missing Data	1	2.1		

Beside the CLHS and the CLOT-R, items about teachers' demographic information were also included, such as gender, age and teaching experience. This information was mainly treated as controlled variables within the analysis.

Demographic characteristics

Forty-seven (N = 47) teachers from two SSD schools in Hong Kong took part in the study. Forty of these were teaching at a primary level and seven were teaching at secondary level. The gender distribution was 27 (85.11%) male and 18 female (14.89%). About half of the participants were aged between 26 and 35 (44.7%). All participants hold a degree or above. Most are teachers (44.7%) and panel heads (44.7%). The demographic statistics are presented in Table 2.

Descriptive Statistics and Reliability of measurements

To identify the participant's helplessness levels and optimism status, the sum scores of the three measurements were calculated. As mentioned, a six-point scaling method from "Strongly Disagree" to "Strongly Agree" were used for all measurements. The scores of the items 1, 4, 7, 8, 9, 11, 13, 15, 17 and18 in CLHS were reversed based on instruction from Dr. Frances Ward to LHS. The possible range was 20 to 120, from low helplessness to high helplessness. The scores of items 1, 3 and 6 in CLOT-R were reversed based on Dr. Lai's advice. The possible range was 6 to 36, from low optimism to high optimism. The mean values of the overall scores were 56.00 (SD = 9.25) and 24.07 (SD = 4.46), which indicated that the helpless level of this group of teachers was around the moderate level and the optimistic level was higher than the middle level.

Cronbach's Alpha is one of the most popular reliability coefficients for examining internal consistency, which was developed by Cronbach in 1951 (Cronbach, 1951; Lewis-Beck, Bryman, & Liao, 2004; Tavakol & Dennick, 2011). It is a number between 0 and 1. Taber (2018) summarised the descriptions of different alpha values in papers:

> excellent (.93–.94), strong (.91–.93), reliable (.84–.90), robust (.81), fairly high (.76–.95), high (.73–.95), good (.71–.91), relatively high (.70–.77), slightly low (.68), reasonable (.67–.87), adequate (.64–.85), moderate (.61–.65), satisfactory (.58–.97), acceptable (.45–.98), sufficient (.45–.96), not satisfactory (.4–.55) and low (.11).

The measurements' reliability of the pilot test was completed, and the descriptive statistics are shown in Table 3. The Cronbach's alpha of the CLHS is .81, which reflects a robust internal reliability. It is increased to .84 if the fourth item is deleted and is increased to .82 if item 20 is deleted. This resembles the findings reported in Quinless and Nelson's (1988) study covering western countries (α=.85). For this, the Cronbach's alpha of CLOT-R was .78. For the CLOT-R scale, the reliability was higher than that of Lai et al. (2005) with Hong Kong Chinese samples.

Table 3
Descriptive statistics and Cronbach's alpha values of pilot test

Variables	No. of items	Range	Mean of measurement	*SD*	Alpha
The Chinese Revised Learned Helpless Scale (CLHS)[a]	20	1-6	56.00	9.25	.81
The Chinese Revised Life Orientation Test (CLOT-R)[b]	6	1-6	24.07	4.46	.78

Note: a. 6-point scaling method was used for CLHS with higher score means higher helplessness. Possible range of the overall score is 20 to 120.
b. 6-point scaling method was used for CLOT-R with higher score means more optimism. Possible range of the overall score is 6 to 36.

Exploratory factor analysis of CLHS

Exploratory factor analyses (EFA) were performed to examine the CLHS dimensionality factor loadings. First, the Kaiser-Meyer-Olkin (KMO) of CLHS was .679. The KMO is a value between 0 and 1 and covers how the data is suitable for a factor analysis. The rule of the KMO values interpretation is that:

- between .8 and 1: the sampling is adequate
- less than .6: the sampling is not adequate
- close to zero: large partial correlations (Glen, 2016).

The KMO of this pilot test was lower than .8 but higher than .6. Since there were only 47 participants, the exploratory factor analysis results were not unrepresentative and are not presented here. Meanwhile, remedial action had been taken in the following validation section (Section 4.3).

Correlation analysis

A correlation analysis was conducted to find the relationship between CLHS and CLOT-R within this group of teachers. The results are shown in Table 4. A significant negative correlation (p<.01) was found between the LHS and CLOT-R.

Table 4
Pearson correlations in pilot

	CLHS	CLOT-R
The Chinese Revised Learned Helpless Scale (CLHS)	-	-.433**
The Chinese Revised Life Orientation Test (CLOT-R)		-

Note: **p<.01 (2-tailed)

Pilot Study Brief discussion

The CLHS had a good reliability and correlation with CLOT-R. However, the factor loadings were different from the English version of the LHS. For the fourth item, which was “I don’t place myself in situations in which I cannot predict the outcome”, it may be explained as participants had no confidence and showed a helplessness, similar to the English version’s result. It may be explained by people having confidence about their judgement and showing an optimism, which shows in the current results. Meanwhile, the differences may be caused by the small sample size. To remedy this, the researcher kept all the items and evaluated them with a larger sample size in the main test.

4.3 CLHS validation

The main aim of this part is to validate the Chinese version of LHS. It used the data from both the pilot test of Phase One and the main test.

Participants and Procedure

In the main test, teachers from different ordinary schools and SSD schools in Hong Kong were recruited. Due to the outbreak of Covid-19, it was difficult to recruit teachers from schools. Thus, convenience sampling was used. The invitations were sent to the SSD schools that were different from those examined during the pilot test. The invitations were also sent to teachers directly through their social networks. An online survey was adopted. A total of 198 teachers from primary schools, secondary schools and SSD schools completed the online survey. However, within the 198 teachers, only four teachers were from the primary SSD school. The researcher found that participants in the pilot test contained more teachers from the primary SSD school than from the secondary SSD school. At the same time, the items of CLHS and CLOT-R did not change between the pilot test and main test, there was no

overlapping data, the sampling methods were similar, and the benefits of a larger database became apparent. Thabane et al. (2010) mentioned that if minimized the potential bias, pooling of pilot and main study data may increase the efficiency of the main study. The 47 samples in the pilot test were combined into this main test. All the data from 245 participants were further analysed with IBM SPSS version 26 and Mplus version 8.4.

Measurements

CLHS was the same measurement which used in the previous pilot study. It was a Chinse scale to measure the learned helplessness, which were translated from an English scale and based on the attributional learned helplessness theory (Quinless & Nelson,1988). The CLHS was a 20-item scale using a 6-point Likert-type one from “Strongly Disagree” to “Strongly Agree”.

CLOT-R was the same measurement used in the previous pilot study as well. Dr. Lai (2002) and his colleagues adapted and developed from LOT-R to assess the optimism of Hong Kong Chinese. The original CLOT-R had 5 points from Strongly Disagree to Strongly Agree. In this pilot research, items were asked with a 6-point Likert-type one as well.

Beside these three measurements, teachers’ demographic information was also be included, such as gender, age and teaching experience. The information mainly treated as controlled variables in the process of analysis.

Table 5
Demographic characteristics of the participants for CLHS validation (N=245)

Variables/characteristics	n	%	Mean	SD
School Type				
Ordinary School (Primary)	101	41.2		
Ordinary School (Secondary)	60	24.5		
Special School (Primary)	44	18.0		
Special School (Secondary)	40	16.3		
Gender				
Male	87	35.5		
Female	156	63.7		
Missing Data	2	.8		
Age				
25 or below	12	4.9		
26-35	100	40.8		
36-45	77	31.4		
46 or above	55	22.4		
Missing Data	1	.4		
Qualification				
Certificate or Diploma	4	1.6		
Degree	145	59.2		
Master or above	96	39.2		
Teaching experience			12.19	.577
Missing Data	3	1.2		
Job Ranking				
Principal	4	1.6		
VP	7	2.9		
Panel head / SENCO	58	23.7		
Teacher	169	69.0		
Social Worker / Counsellor	5	2.0		
Others	1	.4		
Missing Data	1	.4		

Demographic characteristics

Among the 245 participants, 161 (65.7%) were from ordinary schools and 84 (34.3%) were from five SSD schools. Most participants from ordinary schools were from primary (N=101). However, it is difficult to identify their schools, since the participants from ordinary schools were recruited through online channels. For the participants from SSD schools, the number of participants from primary schools (N=44) and secondary schools (N=40) were roughly the same. In this main test, more than 60% were female. The age distribution was 12 (4.9%) below 25, 100 (40.8%) at the range of 26 to 35, 77 (31.4%) at the range of 36 to 45 and 55 (22.4%) above 46. Around 98.4% (N=241) held a degree or above. Most of the participants were teachers or panel heads (N=227, 92.7%) with a rich teaching experience (mean=12.19, *SD*=.577) in their schools. The demographic statistics are presented in Table 5.

Before analysis, the scores of the items in CLHS and CLOT-R were reversed based on the instruction, similar to the pilot test.

Confirmatory Factor Analysis (CFA)

For the English LHS, the 20 items included the five aspects of helplessness. They were Internality-Externality (five items), Globality-Specificity (five items), Stability-Instability (six items), beliefs concerning inherent ability-inability to control or predict the outcomes of situation (two items), and an individual's choice of situation in which the person intentionally participates (two items). In order to investigate the old factor-structure, CFA was conducted. Root Mean Square Error of Approximation (RMSEA) was used to estimate the discrepancy between the model and the data per degree of freedom (*df*). It is suggested that good values are those less than .05 and acceptable are values between .05 and .08 (Browne & Cudeck, 1992; Fabrigar, Wegener, MacCallum, & Strahan, 1999). The RMSEA value in Table 6 is

very poor, which is higher than .1. Most of the research uses CFI and TLI values which are greater than .90 and .95, indicating excellent and acceptable data fitting (Hu & Bentler, 1999; McDonald & Ho 2002; McInerney, Korpershoek, Wang, & Morin, 2018; Xia & Yang, 2019; Yan & Sin, 2014). This result had the CFI and TLI values all lower than .90.

Table 6
Model fit indices from the CFA

	χ^2	*df*	CFI	TLI	RMSEA	CI
CLHS	778.032*	160	.616	.544	.126	.117; .134

Notes *p< .05; χ^2=chi-square; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA= root mean square error of approximation; CI: RMSEA 90% confidence interval.

Dimensionality and Model Fit

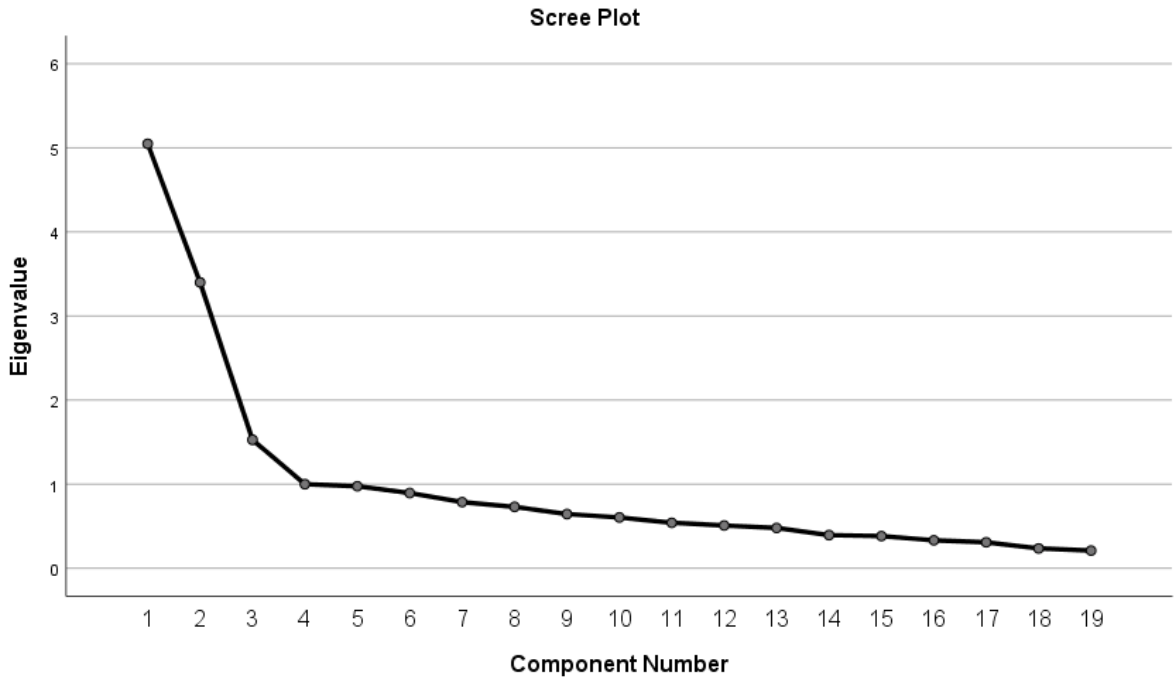
Since the results above were not acceptable, the whole data set was separated into two groups randomly for further analysis. EFA served with group 1 data to investigate the dimensionality of the CLHS. CFA was conducted with the data of group 2 based upon the results of EFA.

Exploratory factor analysis of CLHS

Exploratory factor analyses (EFA) were performed on group 1 to examine the CLHS dimensionality factor loadings. The KMO of group 1 was .814. As mentioned, KMO measures the data suitable for a factor analysis. Kaiser (1974) suggested that if the value falls in the .80s, then this represents a meritorious level. The data yielded four factors. They explained 25.39%, 17.95%, 7.78% and 5.03% of variance. However, the results of item 4 in both the pilot test and this step were in negative scores. As was discussed when outlining the pilot test, there are two possible ways to explain this. They are “participants had no confidence and showed the helplessness” and “participants had confidence about their judgement and showed the optimism”. At the same time, there were two negative words in the sentence which were difficult for participants to understand the exact meaning. With the

above reasons, the 4th item was excluded from the scale. The EFA were ran again. The KMO was .816, which was again meritorious. As shown in the plot in Figure 7, the data yielded three factors this time. They explained 26.57%, 17.89% and 8.04% of variance.

Figure 7
Scree plot of CLHS with group 1



The results are shown in Table 7. Notice that four of the variables are complex which had loadings above .30 on two or three factors. They are the 3rd, 7th, 14th and 16th items. With an examination of the content of these four items, it shows that item 14 was similar in concept to the other items in factor 2; thus, item 14 was included in factor 2 rather than in factor 1. For items 3, 7 and 16, they showed similarity with the items in at least two factors; thus, all three items were deleted.

Table 7
Common factor analysis of C-LHS with group 1 (N=122)

Item	Factor 1	Factor 2	Factor 3
1	.431		
2		.652	
3		.455	.422
5		.793	
6		.741	
7	.643		.356
8	.821		
9	.723		
10			.863
11	.760		
12			.778
13	.633		
14	.333	.652	
15	.601		
16	.377	.547	.321
17	.732		
18	.725		
19		.643	
20		.499	

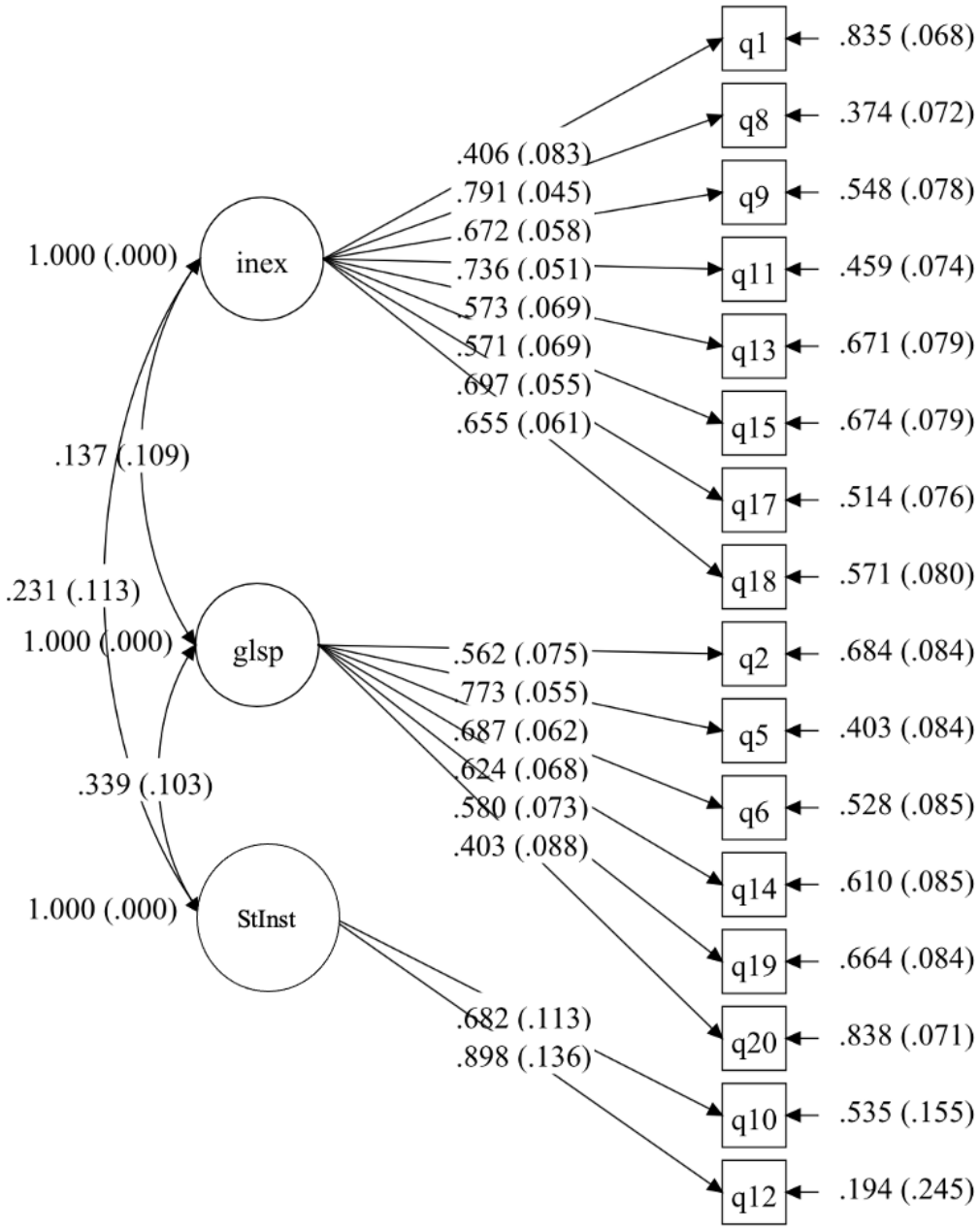
The contents of the remaining items were checked again. The researcher found that most of the items were loaded in a different factor from the English version of LHS. Yet even so, when explain the meaning of items within the Chinese context, it was consistent with the factor loading in Table 7. Fact 1 was labelled Internality-Externality (InEx) with eight items. They were items 1, 8, 9, 11, 13, 15, 17 and 18. Factor 2 was the dimension of Globality-Specificity (GlSp) with six items. They were items 2, 5, 6, 14, 19 and 20. For the remaining two items, item 10 and item 12, they were Stability-Instability (StInst).

Table 8
Model fit indices from the CFA

	χ^2	*df*	CFI	TLI	RMSEA	CI
CLHS	130.760 *	101	.947	.937	.049	.019; .072

Notes: *p< .05; χ^2=chi-square; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA= root mean square error of approximation; CI: RMSEA 90% confidence interval.

Figure 8
CFA Diagram



Confirmatory Factor Analysis (CFA)

CFA were conducted with the data of group 2 to demonstrate the validity of the CLHS. The factors were based on the results from EFA, which had three factors. As shown in Table 8, the CFI and TLI values were both above .90 and the RMSEA value was below .05. The results indicate that the model fit indices associated with the CLHS were in the acceptable to excellent range.

According to Figure 8, the factor loadings of items ranged from .406 to .791 for Externality (InEx), from .403 to .773 for Globality-Specificity (GlSp) and from .682 to .898 for Stability-Unstability (StInst).

Descriptive Statistics and Reliability of measurements

The measurements' reliability was also examined. The data combined with the descriptive statistics are shown in Table 9. The Cronbach's alpha of the CLHS was .803. This is lower than that reported in Quinless and Nelson's (1988) study (α=.85). It demonstrates excellent internal reliability. This increases to .805 by deleting item 2 and increases to .810 by deleting item 20. However, the differences were not creditable and the item contents were satisfactory. Items 2 and 20 were therefore not deleted. For the Cronbach's alpha of CLOT-R, it was .795 that met the expected requirement.

As mentioned above, a six-point scaling method were used. The possible range of the 16-item CLHS was 16 to 96 from low helplessness to high helplessness. The possible range of the CLOT-R was 6 to 36, from low optimism to high optimism. The mean values of the overall scores were 44.07 (SD = 7.60) for the CLHS and 23.64 (SD = 4.58) for CLOT-R. The results

indicate that the helpless level of teachers is lower than the middle level and the optimistic level was higher than the middle level.

Table 9
Descriptive statistics and Cronbach's alpha values of main test

Variables	No. of items	Range	Mean of measurement	*SD*	Alpha
The Chinese Revised Learned Helpless Scale (CLHS) [a]	16	1-6	44.07	7.60	.803
The Chinese Revised Life Orientation Test (CLOT-R) [b]	6	1-6	23.64	4.58	.795

Note: a. 6-point scaling method (was used for CLHS with higher score means higher helplessness. Possible range of the overall score is 16 to 96.
b. 6-point scaling method was used for CLOT-R with higher score means more optimism. Possible range of the overall score is 6 to 36.

Correlation analysis

A correlation analysis was conducted to examine the relationship between CLHS and CLOT-R within this group of teachers. The results are shown in Table 10. A significant negative correlation ($p<.01$) was found between CLHS and CLOT-R.

Table 10
Pearson correlations in main test

	CLHS	CLOT-R
The Chinese Revised Learned Helpless Scale (CLHS)	-	-.576**
The Chinese Revised Life Orientation Test (CLOT-R)		-

Note: **$p<.01$ (2-tailed)

Analysis of variance

To compare the differences in explanatory styles of different school types (ordinary-primary, ordinary-secondary, SSD-primary, SSD-secondary), a one-way ANOVA was conducted. The normality and homogeneity of variance (Levene's test) of the variables were checked before

running the ANOVA. The mean values of the overall scores were 44.07 (*SD* = 7.65), 43.00 (*S*D = 7.22), 45.07 (*SD* = 8.47), and 42.95 (*SD* = 6.96) for different type of schools. All the results were lower than the middle level which indicated lower helplessness levels. Meanwhile, there were no statistically significant differences among school types' as determined by one-way ANOVA (F (3, 241) =1.174, *p* =.320).

Table 11
Descriptive statistics of CLHS score based on school types

	N	Mean	SD
Ordinary School (Primary)	101	44.70	7.65
Ordinary School (Secondary)	60	43.00	7.22
Special School (Primary)	44	45.07	8.47
Special School (Secondary)	40	42.95	6.96

Note: a. 6-point scaling method (was used for CLHS with higher score means higher helplessness. Possible range of the overall score is 16 to 96.

4.4 Summary and Discussion of Phase One

The CLHS was checked and validated based on the new data in the Hong Kong context. The CLHS was translated from the LHS with the translation and back translation steps. The wordings and terms which used in the CLHS were with advice from the different professionals, included one of the authors of LHS. However, the CFA result, which came from the five aspects of English LHS was not good. It indicated that the CLHS data was not the same as the factors analysis results of the LHS. With this situation, the EFA, CFA had been conducted with the current data and the content of the items had been checked with Chinese context as well. The results showed a good fit with the model. Even that the CLHS was translated from LHS, it will be analysis with new 3 dimensions in Chapter 5.

In short, the CLHS is a scale with 16 items. The new dimension of Internality-Externality has eight items. They were items 1, 8, 9, 11, 13, 15, 17 and 18. The new dimension of Globality-Specificity includes six items. These were items 2, 5, 6, 14, 19 and 20. The new Stability-Instability dimension only has two items, item 10 and item 12. The CLHS also had a good reliability and a significant negative correlation with CLOT-R. Meanwhile, teachers from different school types had lower helplessness levels and there were no differences found among schools.

Chapter 5: Phase Two

Following Phase One, Phase Two was conducted to answer all three research questions. To finish the main aim of the whole research project there were some tasks that needed to be finished one by one:

1. Individual interviews: at this stage, the first research question was answered.
2. Some items which were specially about teachers' explanatory styles related to their teaching experiences with EBD students were designed and modified. This is called the CLH-EBD and is discussed in the following paragraphs.
3. The main test: the second and the third research questions were answered at this stage. The model was also examined.

5.1 Individual Interviews

The main aim of interviews was to answer the first research question: "How do teachers view their teaching experiences with EBD students in ordinary schools and SSD schools?" Before the interviews, teachers' lessons were observed. The observations were preparations of interviews. It aimed at providing real cases and situations which happened in the classrooms. The students' misbehaviours, the interactions of students, and the interactions between students and teachers were marked in the observations. The records were discussed further with teachers during the interviews. The interview data was analysed and categorised using the theory of explanatory styles. The findings were then referenced when revising and editing the items in the CLH-EBD to explore teachers' explanatory styles about teaching EBD students. Creswell (2007, p61) suggested that data collection in a phenomenological study consists of interviews with 5 to 25 participants.

Table 12
Information about the participants

Participant	School Type	Gender	Post	Teaching Experience (years) *	Observation	Interview
PRI-A	Ordinary School (Primary)	Female	Panel Head	22	Yes	Yes
PRI-B	Ordinary School (Primary)	Male	Teacher	5	No	Yes
PRI-C	Ordinary School (Primary)	Male	Teacher	8	Yes	Yes
SEC-A	Ordinary School (Secondary)	Male	Panel Head	19	No	Yes
SEC-B	Ordinary School (Secondary)	Male	Teacher	6	Yes	Yes
SEC-C	Ordinary School (Secondary)	Male	Teacher	7	Yes	Yes
SSD-A	SSD School (Primary)	Female	Panel Head	7	Yes	Yes
SSD-B	SSD School (Primary)	Male	Teacher	3	Yes	Yes
SSD-C	SSD School (Primary)	Female	Panel Head	8	Yes	Yes

Note. *Data collected in the year of 2019

The individual interviews were conducted from October to December in 2019. Two ordinary schools were recruited: one primary school and one secondary. Their codes in this study are "PRI" and "SEC". One special school, which was an SSD school with primary classes, was also recruited. It is coded as "SSD". Three teachers from each school (nine teachers in total) took part in the research. The nine participants were called PRI-A to C, SEC-A to C and SSD-A to C in this study. Seven were followed and observed in their classes for a day. Two were not observed but interviewed only. Before the observations or interviews, the consent form was explained and signed by participants. Most participants were experienced teachers or

panel heads with more than five years' teaching experience. Three were female teachers, and the other six were male teachers.

There were some preparations needed for the classroom observations. To create a free atmosphere, teachers introduced the researcher as a guest or an assistant at the beginning of the classes or one day before the visit. The seats were arranged at the far back of the classroom where students were not distracted. The interactions of students and between the teachers and students were marked in a record sheet. Some disruptive behaviours which are mentioned in the document of the Hong Kong Education Bureau (2017) were given special attention. For example, running around, screaming, making odd noises, or deliberately provoking others with words or actions.

There were also some preparations needed for the individual interviews. The interview venues were selected by the participants within the school area. All individual interviews were conducted face-to-face in Cantonese. Voice recordings and field notes were taken with consent. They were semi-structured interviews that lasted for 30 minutes to 1 hour. Some open-ended questions were prepared around the topics of their teaching experiences, the teaching contexts and their explanations. For example, "How long have you been a teacher?" Some issues were given special attention. For example, "In the class just now, the behaviours of students were usual?" "How do you understand the disturbance behaviours when you were teaching?" There was no fixed sequence of questions. Normally, if the interview followed the observation, the questions also related to what had just occurred during the teaching session. If there was no observation, then basic information about the participants had been collected first. The main goal of questions was to stimulate teachers to have a richer dataset.

Data Analysis and Findings

The data analysis procedure consisted of the following steps:

1. All interview records were transcribed in a verbatim format into Word files.
2. Some important themes and sub-themes were confirmed. To ensure the rigor of the data analysis, Creswell's (2007, p61) data analysis steps for phenomenological research were adopted which included went through the data, highlighted significant sentences, and developed clusters of meaning into themes. The themes included basic information, disturbance behaviours of students (with three sub-themes covering EBD students and other students), teachers' explanatory styles (with three sub-themes: Internality-Externality, Globality-Specificity and Stability-Instability).
3. Coding the data in the qualitative data analysis software NVivo 12. Meanwhile, new themes were discovered and added. When identify the coding, some key words would be used in different themes. Taking the theme, teachers' Globality-Specificity explanatory style as an example. The sentences highlighted with the key words like "everyone", "all", "most", "special", "only" etc. "The EBD student was fine most of time…" is a significant sentence for teacher's global explanatory style. "Today is a special situation…" is a significant sentence for teacher's specific explanatory style.
4. Summarisation consisted of the textural description and the composite description.

In the PRI, the common misbehaviours which were observed in the classes were: answering questions without permission; walking out without noticing; absence of mind; self-talking; chatting with classmates. These behaviours came from students with and without EBD. In the classroom, teachers normally reminded them softly. For example:

> In the PRI-C's class, a student of grade 1 loved to answer questions. The student gave his answer with hands up without teacher's permission. Teacher reminded him about

the regulations many times. When the student controlled himself well, the teacher praised him and gave him a chance to answer questions.

During the interview session, PRI-C shared his opinions on students and their behaviours. First, the student in the case above was active but not a student with EBD. For the other students with EBD, PRI-C thought they were just active and talkative like the other students. Second, for another EBD student of grade 5, PRI-C shared that at the beginning the EBD student might love to contradict teachers. However, with time past and a relationship built, the student was now fine. Even if disruptive things happened, the student recovered fast. Third, PRI-C shared his hard work on making the classes attractive and the importance of building good relationships with students.

The interview data were analysed with the three dimensions in the explanatory style theory, and revealed that PRI-C's explanatory style was optimistic. For the dimension of "stable vs. temporary", PRI-C knew that interrupting the teaching from students with EBD was unstable and would not last long. The students changed. For the dimensions of "global vs. specific", PRI-C did not think the misbehaviours in the classroom only happened because of students with EBD. For the dimensions of "internal vs. external", PRI-C appreciated his efforts. Meanwhile, the optimistic explanatory style was also found within his explanations about his job. He had confidence in his ability, even if there was pressure from time arrangements. The greater diversity of inclusive education was a challenge for him, but this was a common thing amongst all teachers. PRI-C said he was already prepared to face inclusive education and enjoyed it. He also believed in his teaching ability and believed that it was better than in previous years, and still improving.

The optimistic explanatory style was also found in PRI-A and PRI-B. In PRI-A's opinion, students with and without EBD were the same. PRI-A said:

> "Everyone has their special need. Someone may need glasses. Someone maybe taller or fatter…The EBD students just need be taught some special strategies to release their emotions." (PRI-A, female, primary school, panel head)

PRI-B said:

> "We all have emotions. (The students with EBD) are the same…" (PRI-B, male, primary school, teacher)

For the question about stress from the job, PRI-A explained that, even though some classes may be hard to teach, everything moved on quickly. She did not feel stressed. This is similar to PRI-B, who took courses after work and felt happy with his efforts to help EBD students in his classes. In one of PRI-A's classes, an EBD student had an argument with another student without EBD. PRI-A had an optimistic understanding about the conflict. She said:

> "The EBD student was fine most of time. Today is a special situation… They both wanted to help me… I guess they may have some other argument already before… Even had some effect on the class but not much… The most important thing is the relationship I built with them before. They will try to control themselves…" (PRI-A, female, primary school, panel head)

PRI-A did not feel helplessness and did not blame herself. She knew the students were not directing at her. PRI-A had confidence with the relationships she had built up previously. Her reactions observed in the classroom were consistent with her understandings. PRI-A gave time to the students to calm down in the classroom, and there were no special misbehaviours or emotions following this.

In the SEC, common misbehaviours were similar to those observed in the PRI, such as walking out without noticing; absence of mind; self-talking; and chatting with classmates. However, in most of cases (such as changing seats or walking out), teachers did not pay attention. Teachers softly reminded the students when they were sleepy or too noisy. SEC-B told me:

> "Since they are high school students, actually, sometimes they walked out to pick something (without notice) was allowed by me. For instance, they changed their seats according to their need, as long as the changing will help them, I am ok. However, after changing, if they become noisy, I asked them to change back… However, walk out of the classroom without permission is not allowed." (SEC-B, male, secondary school, teacher)

Teachers from the SEC also discussed other misbehaviours or extreme emotions, such as having quarrels or even fights between students and against teachers, along with sudden emotional outbursts etc. However, during the observational days, there were no severe emotional or behavioural issues observed.

The optimistic explanatory style about both teaching EBD students and their job were also found within the teachers of the SEC. Teachers shared their difficulties of teaching students with EBD or the pressures from their work. However, their explanations to these bad events were global, which means the bad events were universal and not specifically. The bad events were unstable, meaning they could change or be progressed through. The bad events were external to themselves, allowing them to avoid taking full responsibility by themselves. All explanations represent an optimistic explanatory style. SEC-A shared:

> "Before, there was a student who easily lost the temper. When he was angry, no one could walk close… I tried to have conversations with him. I later found out that this is

> his way to deal with bad emotions. It was taught by his middle school's teacher… What did he do before was expressing out which may cause conflict with the other students or families… Since we know his method, we gave him space and time. Meanwhile we found normally he will be OK in minutes or hours." (SEC-A, male, secondary school, panel head)

When SEC-B noticed two students in his class fighting, he said:

> "At the first moment, I may a little bit easy to think like 'Again? Why?' However, I changed my mind soon, because they are young. It is normal for youth…The most important thing was they do not know how to express themselves well… Another case was a student who had a big conflict with me about his score… I know he was just releasing his emotions… He was fine days later… I know his reasons behind it…even he lost his temper at me… I know he just does not know how to express himself…" (SEC-B, male, secondary school, teacher)

SEC-C's opinions about the teaching tasks he did not like were:

> "Even if I do not like them, I have to deal with them. This is a requirement for teachers…When I have no skills to face, I will ask for help from the other teachers. I think (asking for help) is also a positive method. At last, my bottom line is I cannot ignore it…" (SEC-C, male, secondary school, teacher)

In the SSD, beside the misbehaviours mentioned in the PRI, two special cases occurred during the observation sessions. One was a student who kept on self-talking. At the beginning, he was taken out of the classroom and accompanied by other support teachers. When he got better, he went back to classroom. In the classroom, when the other students were doing their worksheet, the teacher SSD-A had a special talk with that student. Another special case was two students who had an argument in the class. SSD-A was a support

teacher who was on standby to deal with special cases during class time. SSD-A called and pulled one of the students out. After a short education, the student was allowed back into his classroom. All three interviewed teachers proudly shared the function and necessity of their special support arrangements. As mentioned, SSD was a special school for students with EBD. The teachers expressed their confidence about their strategies of teaching students with EBD. The optimistic explanatory style to find challenges in their jobs was found.

Unlike other teachers who joined this study, SSD-B was a fresh teacher. It was his third year of being a teacher when he was interviewed. He shared some optimistic explanations about the difficulties in work. He knows his difficulties from a lack of experience, however over time, things were getting better. He worked hard to learn how to teach the students. Meanwhile, he also had helpless explanations about good things. Although there were good situations in his classes, he was worried about getting bad later. He mentioned:

> "The experience in the first year was painful. I believe, there was no fresh teacher for the first year in the SSD schools are good…Last year (his second year) was better, even though, I still have no confidence about some extreme cases… I may not solve the problems since I have less experience…I am teaching the lower grade classes now. As you can see, so far ok…I spent a lot of time to build a relationship with them…" (SSD-B, male, SSD school, teacher)

Except for the above, teachers were worried about the uncertainty in the future, meaning the things that did happen or never happened. For example, SSD-C said, her stress mainly came from the necessary preparation work:

> "The challenge for me is unstable… There are a lot of possibilities, I need to think a lot and do a lot of preparations… The unstable may come from students, the other

people, or environments… It is an unvisitable stress for me…" (SSD-C, female, SSD school, panel head)

SSD-A shared that:

"So I do not have pressure… If have to say, I think may be death… I imaged…It was never happened to me… If the students are out of control and commit suicide in front of you…I think no matter how optimistic you are, it is a big shock…I think it will have effect on me, because it is about life.……" (SSD-A, female, SSD school, panel head)

Summary

The teachers interviewed in this study shared their experiences and opinions about teaching students with EBD. In general, they had an optimistic explanatory style concerning the challenge and difficulties. Meanwhile, their worries about an uncertain future form a new theme which was revealed during the analysis.

5.2 Some Items for Explanatory Style about Teaching EBD Students

In this section, some new items which were specially designed to measure teachers' explanatory styles toward teaching EBD students are outlined. This was called the Chinese Learned Helpless about teaching Students with Emotional and Behavioural Difficulties (CLH-EBD). This newly developed tool was used for the main test.

The procedures to develop these items for measuring teachers' explanatory styles toward teaching EBD students included:

1. the structure confirmation and the initial item pool creation.
2. review and revision.

The items of CLH-EBD were focused on teachers' explanatory styles toward teaching EBD students. An initial item pool with six items was established, which followed the explanatory theory. When edit the items CLH-EBD, some items from the CLHS were referred. For example, the 18th item in CLHS "No matter how much energy I put into a task, I feel I have no control over the outcome" was revised into "No matter how hard I try, the students with EBD never seem to follow the way I want them to." Meanwhile, the researcher found a Chinese test to evaluate Hong Kong Chinese's optimism, named The Chinese Revised Life Orientation Test (CLOT-R) (Lai & Cheung, 1998). Through a connection, the researcher got authorization by the author to use and adopt this model. This has been used to validate the CLHS mentioned in the previous chapter. The items in the CLOT-R also gave some inspiration to the CLH-EBD. Two items of CLH-EBD were edited with the items of CLOT-R. For example, the 6th item of CLOT-R "Overall, I do not know how to teach the students with EBD" was revised into "Overall, I do not know how to teach the students with EBD." This was the first draft of the CLH-EBD.

There were six items in total in the final version of CLH-EBD. The items were revised based on one of the Explanatory Styles' theory books (Seligman, Reivich, Jaycox & Gillham, 1995) and the results of the interviews. In the first draft of the CLH-EBD, there was one overall item and three sub-items from the three dimensions of explanatory styles respectively. In the second version, there were two items from the three dimensions added respectively. The item about teachers' overall explanations was deleted. The teachers' interviews were used as a primary reference in revising the items. For instance, during the interviews, teachers emphasised the importance of the relationship between teachers and students. The sixth item of the new version was "If I can get along well with the EBD students, it is because I have

made a lot of efforts and attempts." Three experienced teachers were invited to review and provide comments on the new items. They were asked to evaluate the items according to the research questions and item aims. Following this, the second draft of CLH-EBD included six multiple-choice items. The above items adopted the 6-point Likert-type scale.

5.3 The Main Test

This main test aimed to examine the following research hypotheses and the conceptual model. It was a quantitative study. There were three general hypotheses evaluated:

- Research Hypothesis 1: Teachers from SSD schools are expected to have lower levels of learned helplessness and anxiety about teaching EBD students compare to teachers from ordinary schools.
- Research Hypothesis 2: Teachers' learned helplessness explanatory styles mediate the effects of their anxiety to EBD students and general anxiety.
- Research Hypothesis 3: Teachers' anxiety about teaching EBD students mediates the effects of their learned helplessness explanatory styles toward EBD students and general learned helplessness explanatory styles.

Participants and Procedure

In-service teachers were recruited in the academic year of 2020/2021 through schools or through social networks. A cluster sampling method was originally designed for data collection. However, due to the outbreak of Covid-19, it was difficult to recruit teachers from ordinary schools. Thus, convenience sampling was used for teachers from ordinary schools. Meanwhile, the cluster sampling method had been applied when collecting data from teachers at SSD schools only. Since two SSD schools joined the pilot test, the researcher sent a research invitation letter to the other six SSD schools' principals. Three of the six SSD

schools agreed to take part in the research project and distributed the information to their teachers.

Due to the suspension of face-to-face classes and school activities, it was difficult to meet teachers. An e-questionnaire was prepared through “Qualtrics – Survey Tool”. Teachers were sent invitation messages through WhatsApp or over email. When teachers clicked the embedded hyperlink in the invitation, they accessed a new web browser through their phone or computer.

The questionnaire normally took around 20 minutes. Participants completed all the items and there were no missing data from the multiple-choice replies. For the items which needed to be typed, the missing data were found and coded as 99. All the data were further analysed with IBM SPSS version 26 and Mplus version 8.4.

The sample was mainly comprised of teachers from ordinary primary schools (N=101, 51%) and ordinary secondary schools (N=60, 30.3%), as well 37 teachers (18.7%) from SSD schools. There were twice as many female teachers (N=138, 67.7%) as male teachers (N=60, 30.3). More than half of the teachers were aged above 36 (N=111, 56.0%). Teachers were experienced (mean=12.40, *SD*=9.18). Almost all the teachers had a bachelor’s degree or above. Around 54.5% of teachers were without a religion. The general participant demographic information is presented in Table 13.

Table 13
Demographic characteristics of the Phase Two sample (N = 198)

Variable	Type	N	%
Type of school	Ordinary (Primary)	101	51.0
	Ordinary (Secondary)	60	30.3
	SSD School (Primary)	4	2.0
	SSD School (Secondary)	33	16.7
Gender	Male	60	30.3
	Female	138	69.7
Age	25 or below	8	4.0
	26-35	79	39.9
	36-45	66	33.3
	46 or above	45	22.7
Teaching experience	0-10	102	51.5
	11-20	54	27.3
	21-30	38	19.2
	31-40	4	2.0
Current Job Rank	Principal	4	2.0
	Vice Principal	5	2.5
	Panel head	30	15.2
	Teacher	142	71.7
	Social Worker / Counsellor	3	1.5
	SEN-Co	14	7.1
Education background	Certificate or Diploma	4	2.0
	Degree	115	58.1
	Master or Above	79	39.9
Religion	None	108	54.5
	Buddhism	1	.5
	Protestantism	74	37.4
	Catholicism	14	7.1
	Others	1	.5

Measurements

At the very beginning of the e-questionnaire, an introduction and the consent form were explained. To follow the guidelines of the Human Research Ethics Committee of the Education University of Hong Kong (2016), an Information Sheet and a Consent Form was sent to all participants. The information sheet included details such as the basic information of the researcher and the research project, the introduction of the research, the participants' tasks etc. Participants were reminded that their participation was voluntary. They could withdraw from the study at any time without negative consequences. All the information collected was kept strictly confidential and treated for research purposes only. The contact information of the researcher and the Human Research Ethics Committee was left to the participants for their reference. If participants understood all the information, such as their benefits and the risks involved, they ticked the "agree" or "disagree" box on the Consent Form. Participants were kept on the survey if they chose "Agree". Participants were jumped to the end to stop the survey if they disagreed with the first page. Participants might also close the browser window to leave the survey at any time.

The main part was a self-report questionnaire consisting of different measures evaluating explanatory styles and emotions.

Explanatory Styles

The Chinese Revised Learned Helpless Scale (CLHS) was the Chinese version of LHS, which was translated and validated. This was a 16-item, 6-point Likert-type scale, ranging from "Strongly Disagree" to "Strongly Agree". All items were designed based on the attributional learned helplessness theory (Quinless & Nelson, 1988). The 8-item subscale,

Internality-Externality, was used to ask teachers' helplessness due to the factors which were internal or external to themselves (α=.85). The 6-item subscale, Globality-Specificity, was used to ask things about pervasiveness and pertinence (α=.72). The 2-item subscale, Stability-Instability, focused on persistence (α=.71).

The CLH-EBD included some Chinese items to score learned helplessness about teaching EBD students. All six items were designed according to the three dimensions, which are global vs. specific, stable vs. temporary and internal vs. external. For example, "No matter how much energy I put into a task, I feel I have no control over the outcome" and "The difficulties of EBD students are permanent". The CLH-EBD used a 6-point Likert-type scale like the CLHS.

Beside the CLHS and the CLH-EBD, two items were designed to collect teachers' opinions about their changing circumstances following Covid-19. The items were coded as "Changing 1" and "Changing 2" in Table 14. Changing 1 was "Now I have a different opinion with teaching EBD students". Changing 2 was "Now I have a more optimistic opinion about teaching EBD students".

Emotion

General Anxiety Disorder-7 (GAD-7) has been proven as a valid and efficient tool for screening levels of anxiety (Spitzer, Kroenke, Williams, & Löwe, 2006). Due to the interview, it was found that teachers' symptoms matched with anxiety, such as excessive anxiety and worry. The Chinese version in this study was based on a test on the website of the Hospital Authority (n.d.) in Hong Kong. The 4-point Chinese version was translated and adopted from the journal article of Spitzer, Kroenke, Williams and Löwe, published in 2006.

The Chinese version was applied to participants over 18 years old in Hong Kong. As is remarked on the webpage, this is not to be used for anxiety diagnosing but instead as an informal reference. In this main test, items were asked with a 6-point Likert-type scale and covered the previous two weeks (α=.94).

The GAD-7-EBD was a test adopted from General Anxiety Disorder-7, with the context of teaching EBD students. All seven items had an emphasis on "teaching students with EBD" at the beginning (α=.95).

Preliminary Analysis

The above measures were measured by summing across the constituent items. The psychometric properties of study variables are presented in Table 14. The Cronbach's alpha of the CLHS was .80, which reflects a robust internal reliability. Meanwhile, the results of the three different dimensions are all greater than .7, which means all measurements meet the requirements. The reliability of the two anxiety scales were .94 and .95 which are excellent. The Cronbach's alpha of the CLH-EBD is .76 which is relatively high if deleted the 4th and 6th items. The scores of the CLHS (mean=43.98, *SD*=7.44) and the CLH-EBD (mean=10.62, *SD*=3.22) are lower than the middle level. They show that the learned helplessness level of teachers, both general about work and specific to EBD students, were low. For the Cronbach's alpha of two anxiety scales, they are all excellent. Even though the anxiety levels of teacher in general (mean=21.57, *SD*=7.50) are higher than that towards EBD students (Mean=20.19, *SD*=6.8), both are under the moderate anxiety level. The two items about teachers' changing circumstances caused by the Covid-19 pandemic are all at the middle level. The results represent that no changing has come about due to class suspensions.

Table 14
Psychometric properties of study variables in main test

Variable	N	Mean	SD	Alpha	Items	Range	
						Potential	Actual
CLHS	198	43.98	7.44	.80	16	16-96	24-62
Internality-Externality	198	24.13	5.78	.85	8	8-48	8-40
Globality-Specificity	198	15.50	3.31	.72	6	6-36	9-30
Stability-Instability	198	4.35	1.16	.71	2	2-12	2-9
CLH-EBD	198	10.62	3.22	.76	4	4-24	4-22
GAD-7	198	21.57	7.50	.94	7	7-42	7-42
GAD-7-EBD	198	20.19	6.80	.95	7	7-42	7-42
Changing 1	198	3.67	1.17	-	1	1-6	1-6
Changing 2	198	3.45	1.06	-	1	1-6	1-6

Note. CLHS= The Chinese Revised Learned Helpless Scale (CLHS); CLH-EBD= Chinese Learned Helplessness Test about teaching EBD students; GAD-7=General Anxiety Disorder-7; GAD-7-EBD=General Anxiety Disorder-7 with the context of teaching EBD students; Changing 1 and Changing 2= opinion changing caused by the Covid-19.

To examine the differences in their responses from ordinary schools and SSD schools, the normality and homogeneity of variance (Levene's test) of the dependent variables was checked before running with IBM SPSS version 26. The Levene's Test for GAD-7 between ordinary schools and SSD schools showed F=4.520, p=.035<.05, the null hypothesis of equal variances was rejected and did not conduct independent samples t-test. With checking, there were no outliers that needed to be removed. An independent samples t-test was calculated to compare the CLHS, CLH-EBD and GAD-7-EBD means of samples from ordinary schools and SSD schools. The scores of the CLHS and CLH-EBD for the teachers from SSD schools were lower than the teachers from ordinary schools. However, there were no significant differences in the CLHS and CLH-EBD scores for the teachers from ordinary schools and SSD schools. According to the scores of GAD-7-EBD, teachers from ordinary schools

(mean=20.80, *SD*=6.68) and SSD schools (mean=17.51, *SD*=6.78) both had low anxiety levels. Meanwhile, there was a significant difference in the GAD-7-EBD scores for teachers from ordinary schools and SSD schools; t (196) =2.69, p = .008<.01.

Table 15
Comparison between respondents who from ordinary schools and SSD schools (N =198)

	Ordinary School (n=161)	SSD schools (n=37)	t	*df*	*p*
CLHS	44.07±7.52	43.59±7.18	.349	196	.728
CLH-EBD	10.68±3.17	10.38±3.51	.507	196	.613
GAD-7	22.09±7.76	19.30±5.82	/	/	/
GAD-7-EBD	20.80±6.68	17.51±6.78	2.69	196	.008**

Note. CLHS= The Chinese Revised Learned Helpless Scale (CLHS); CLH-EBD= Chinese Learned Helplessness Test about teaching EBD students; GAD-7=General Anxiety Disorder-7; GAD-7-EBD=General Anxiety Disorder-7 with the context of teaching EBD students; **p<.01 (2-tailed).

Correlations

Initial Pearson's zero-order correlations were conducted to assess the relationships between the different measurements. The potential covariates for the mediation analyses were determined. Strong positive correlations were found among CLHS, CLH-EBD, GAD-7 and GD-7-EBD.

The subscale Globality-Specificity of CLHS did not find significant correlations with the Internality-Externality subscale and CLHS-EBD (See Table 16).

Table 16
Pearson's zero-order correlations

	1	1.1	1.2	1.3	2	3	4
1. CLHS	1						
1.1 Internality-Externality	.867**	1					
1.2 Globality-Specificity	.578**	.122	1				
1.3 Stability-Instability	.448**	.235**	.247**	1			
2 CLH-EBD	.393**	.445**	.044	.182*	1		
3 GAD-7	.470**	.429**	.202**	.306**	.288**	1	
4 GAD-7-EBD	.369**	.294**	.211**	.301**	.492**	.468**	1

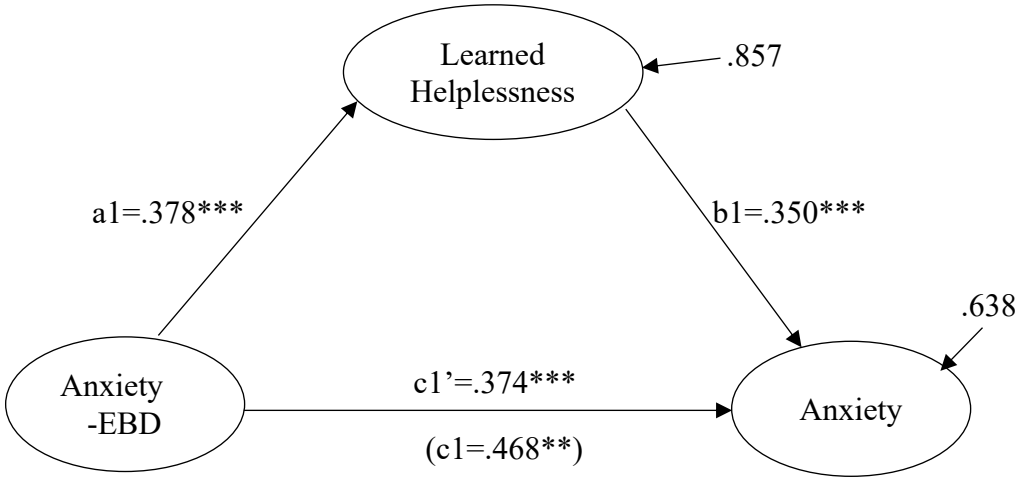
Note. CLHS= The Chinese Revised Learned Helpless Scale (CLHS); CLH-EBD= Chinese Learned Helplessness Test about teaching EBD students; GAD-7=General Anxiety Disorder-7; GAD-7-EBD=General Anxiety Disorder-7 with the context of teaching EBD students; *p<.05 (2-tailed). **p<.01 (2-tailed).

Mediation analyses

A structural equation model was tested to explore hypothesis 2, that the learned helpless explanatory style mediates the relation between anxiety about teaching EBD students (anxiety-EBD) and teachers' general anxiety (Figure 9). Two types of anxiety and learned helplessness style were latent variables in this model. The model specified three direct paths from anxiety-EBD to the learned helpless explanatory style variable (a1), from the learned helpless style to general anxiety (b1), and from anxiety-EBD to general anxiety (c1'). The model also specified the indirect path from anxiety-EBD to general anxiety through the learned helpless explanatory style. Results indicated that anxiety-EBD did significantly predict the learned helpless explanatory style (β = .190, SE = .062, β* = .378, p < .001), the learned helpless explanatory style did significant predict general anxiety (β = .731, SE = .183, β* = .350, p < .001), and anxiety-EBD did significant predict general anxiety (β = .392, SE = .092, β* = .374, p < .001). The indirect effect was significant as well (β = .139, SE = .049, β* = .132, p < .01). However, the chi-square for the model was significant ($\chi^2(402)$ =

927.554, $p < .01$), and the model fit indices indicated a not good fitting (CFI = .826, TLI=.811, RMSEA = .081). Overall, even though the results do support the mediational hypothesis, there is still a need for further tests in the future.

Figure 9
The effects of anxiety about teaching EBD students on general anxiety via learned helplessness explanatory style.



Note **p<.01; ***p<.001

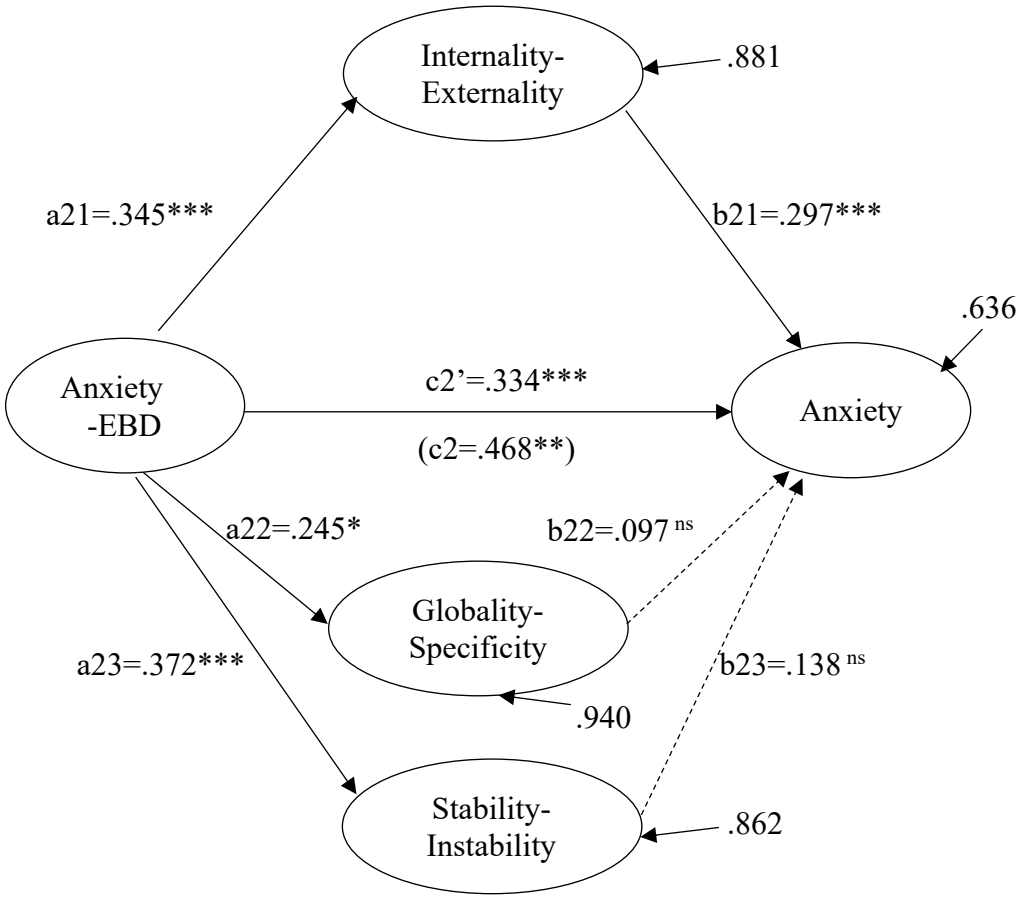
A further analysis had been conducted to examine how the three dimensions of the learned helpless explanatory style mediated the relation between anxiety about teaching EBD students (anxiety-EBD) and teachers' general anxiety (Figure 10). In this model, the different paths were:

- from anxiety-EBD to the Internality-Externality dimension (a21), from the Internality-Externality dimension to general anxiety (b21).
- from anxiety-EBD to the Globality-Specificity dimension (a22), from the Globality-Specificity dimension to general anxiety (b22).
- from anxiety-EBD to the Stability-Instability dimension (a23), from the Stability-Instability dimension to general anxiety (b23).

- and from anxiety-EBD to general anxiety (c2').

Two types of anxiety and three dimensions were all latent variables in this model. The model also specified the indirect path from anxiety-EBD to general anxiety through the three dimensions. The chi-square for the model was significant ($\chi^2(398) = 687.693$, $p < .01$), and the model fit indices indicated a good fitting (CFI = .904, TLI=.895, RMSEA = .061). The anxiety-EBD did significant predict general anxiety (β = .348, SE = .096, β* = .334, $p < .001$).

Figure 10
The effects of anxiety about teaching EBD students on general anxiety via three dimensions of learned helplessness explanatory style.



Note *p<.05; **p<.01; ***p<.001; ns=not significant; Dotted lines indicate non-significant paths

The results of the Internality-Externality dimension indicates that anxiety-EBD did significantly predict the Internality-Externality dimension (β = .166, SE = .058, β* = .345, p < .001), the Internality-Externality dimension did significant predict general anxiety (β = .642, SE = .181, β* = .297, p < .001). The indirect effect was significant as well (β = .107, SE = .039, β* = .102, p < .01).

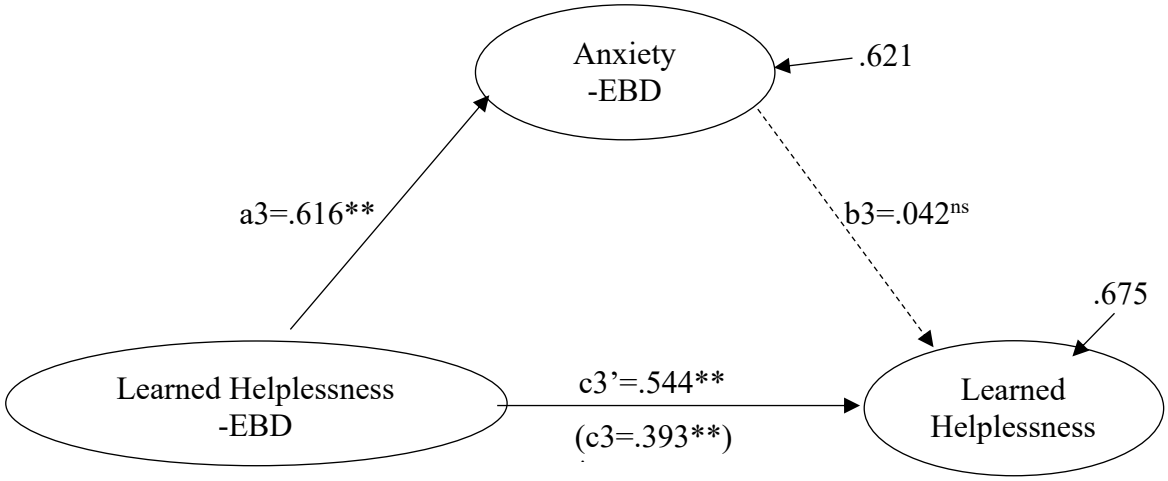
The results of the Globality-Specificity dimension indicates that anxiety-EBD did significantly predict the Globality-Specificity dimension (β = .102, SE = .053, β* = .245, p < .05), but the Globality-Specificity dimension did not significant predict general anxiety (β = .243, SE = .303, β* = .097, ns). The indirect effect was not significant (β = .025, SE = .026, β* = .024, ns).

The results of the Stability-Instability dimension indicates that anxiety-EBD did significantly predict the Stability-Instability dimension (β = .185, SE = .051 β* = .372, p < .001), but the Stability-Instability dimension did not significant predict general anxiety (β = .288, SE = .225, β* = .138, ns). The indirect effect was not significant (β = .053, SE = .045, β* = .051, ns).

Another structural equation model was tested to explore hypothesis 3 (Figure 11), that teachers' anxiety about teaching EBD students (anxiety-EBD) mediated the effects of their learned helplessness explanatory styles toward EBD students (learned helplessness-EBD) and general learned helplessness explanatory styles. Two types of learned helplessness explanatory styles and anxiety-EBD were latent variables in this model. The model specified three direct paths from learned helplessness-EBD to anxiety-EBD variable (a3), from anxiety-EBD to general learned helplessness explanatory styles (b3), and from learned

helplessness-EBD to general learned helplessness explanatory styles (c3'). The model also specified the indirect path from learned helplessness-EBD to the general learned helpless explanatory style via anxiety-EBD. The results indicate that learned helplessness-EBD did significantly predict both anxiety-EBD (β = .817, SE = .136, β* = .616 , $p < .01$) and the general learned helpless explanatory style (β = .363, SE = .109, β* = .544 , $p < .05$). However, anxiety-EBD did not significantly predict the general learned helplessness style (β = .021, SE = .058, β* = .042 , p = .716, ns). However, the chi-square for the model was significant ($\chi^2(321) = 801.274$, $p < .01$), the model fit indices indicated a poor fitting (CFI = .781, TLI=.761, RMSEA = .100). Overall, the results do not support the mediational hypothesis 3.

Figure 11
The effects of learned helplessness explanatory style toward EBD students on learned helplessness explanatory style via anxiety about teaching EBD students.



Note *p<.05; **p<.01; ns=not significant; Dotted lines indicate non-significant paths

Discussion

This section contains an outline of the findings relevant to each hypothesis:

For Hypothesis 1: The results showed that teacher participants were without helplessness and anxiety. Meanwhile, the anxiety level about teaching EBD students among teachers from SSD schools was significantly lower than those from ordinary schools. However, for both types of learned helplessness, the general helpless explanatory style and the helplessness explanatory style toward EBD students, teachers from SSD schools showed a lower score, but were not statistically significant.

For Hypothesis 2: The model showed that the fact teachers' learned helplessness explanatory styles act as a mediator between their anxiety to EBD students and general anxiety is supported. However, as the model fit indices are not good enough, further research with a larger sample sized is needed. Meanwhile, in a further analysis, the results show that the Internality-Externality dimension is a mediator of teachers' different anxieties. However, the Globality-Specificity dimension and the Stability-Instability dimension do not present significant results.

For Hypothesis 3: Teachers' anxiety about teaching EBD students is not a mediator between their learned helplessness explanatory style toward EBD students and general learned helplessness explanatory styles.

5.4 Summary of Phase Two

Phase Two started from interviews. In general, teachers had optimistic explanatory styles about the challenges and difficulties they faced. Most of their worries were about an uncertain future. The second step of Phase Two focused on the items for exploring teachers' explanatory style toward EBD students. These six items were confirmed in the CLH-EBD.

The three hypotheses for the second and third research question have been answered in the main study.

Chapter 6: Discussion and Conclusions

6.1 Overview of research questions and study findings

Three research questions and three hypotheses have been addressed in the previous chapters and are summarised below.

Research Question 1

Research question 1 was: How do teachers view their teaching experiences with EBD students in ordinary schools and SSD schools? This research question has been explored in the first section of Phase Two. Teachers' responses were summarised first and further analysed with the explanatory style theory. Even though the behavioural and emotional problems of students were markedly higher in the SSD schools than in ordinary schools, the teachers' responses were similar. They all had optimistic explanatory styles about the difficulties and challenges they faced. For example, most had pressures and worries about work and teaching. However, after a further analysis with the three dimensions of the explanatory style theory, teachers defined the bad events in their work as being universal and unstable, and were changed by their efforts. These were optimistic explanations.

Research Question 2

Research question 2 was: What are the teachers' explanatory styles in both ordinary schools and SSD schools? First, in the third section of Phase One, teachers were found with lower helplessness levels about their work and life. There were no differences found among primary ordinary schools, secondary ordinary schools, primary special schools and secondary special schools. Second, in the main test of Phase Two, the results showed that teacher participants had low levels of helplessness and anxiety. For teachers' specific explanatory styles about teaching EBD students, there were no significant differences between teachers

from ordinary schools and special schools. The answer to the research hypothesis was that teachers from SSD schools had lower levels of learned helplessness about teaching EBD students than those of teachers from ordinary schools, but these results were not significant. Meanwhile, a significant difference was found in their anxiety feelings about teaching EBD students. The teachers from SSD schools had lower anxiety than those from ordinary schools. The results are similar to the findings of Vlachou, Dimitra and Metallidou (2014) and Chong and Au (2008), that teachers from special schools have more confidence.

Research Question 3

Research question 3 was: What is the role of the teachers' explanatory style? This had two hypotheses about the mediation role of explanatory styles. One was that teachers' learned helplessness explanatory styles mediate the effects of their anxiety to EBD students and general anxiety. The other one was that the teachers' anxiety about teaching EBD students mediate the effects of their learned helplessness explanatory styles toward EBD students and general learned helplessness explanatory styles. The study findings were that the first model was supported and the second model was not. Meanwhile, with a further analysis, the dimension of Internality-Externality was a better mediator of teachers' different anxieties than the other two dimensions. The other two dimensions were the Globality-Specificity dimension and the Stability-Instability dimension.

6.2 Implications of Results

New Understandings about Teachers' Emotions and Teaching EBD Students

Teachers' emotions were measured with teachers' anxiety in this research project. The anxiety included teachers' general anxiety about their work/life, as well as their specific anxiety about teaching students with EBD. The results are inspiring that both types of anxiety were under

moderate levels. They are different from the research mentioned in previous chapters, that teachers have high levels of stress, burnout and depression (Farber, 1984; Fontana & Abouserie, 1993; Gray, Wilcox, & Nordstokke, 2017; Hong Kong Professional Teachers' Union & Division of Clinical Psychology, 2018; Pillay, Goddard, & Wilss, 2005). However, it is still worth noting that, in the individual interviews, teachers mentioned their stressful feelings about uncertainty in their work. With the above reasons, it is hard to make a conclusion that teachers are without stress, but different teachers use different strategies to release their stress. Teachers are important and professional. In Chinese culture, the teaching profession is sacred. Students are educated to respect their teachers and parents hold teachers in high regard. However, with the reforms to the educational system, teachers face more challenges and more limitations. Neves de Jesus and Lens (2005) argued that teachers suffer more from the occupational lack of motivation. Policy makers or school leaders need to pay attention and provide different resources to support teachers' mental health.

At the same time, the anxiety levels of teachers in general were higher than those toward EBD students. With this result, it worth re-examining the reports about teachers' difficulties in teaching SEN students, particularly the teaching of EBD students (Equal Opportunities Commission, 2012; Forlin, Douglas & Hattie, 1996; Hong Kong Professional Teachers' Union & Division of Clinical Psychology, 2018; Pearson, Lo, Chui, & Wong, 2003). The result may provide good evidence to change the stereotypes surrounding EBD students. Teaching EBD students, as well as SEN students in general is not that terrible nor stressful. Teachers' different explanatory styles have an effect on their teaching.

The Importance of Teachers' Optimistic Explanatory Styles

The low anxiety levels of teachers may be due to their optimistic explanatory styles. From the first mediation model it can be noted that the pathway from teachers' anxiety about teaching EBD students to their general anxiety was mediated by their explanatory styles, especially the Internality-Externality dimension. The Internality-Externality dimension focuses on the teachers' explanation of their anxiety that come from their internal traits and external factors. The internal traits include how teachers have confidence in their ability to teach different students, and how teachers explain students' development due to their own efforts etc. External factors may include factors from schools, students themselves, or environments etc. These findings are similar to those of Poulou and Norwich (2000), in which teachers attribute students' difficulties to factors external to teachers themselves, such as factors from families or students. Ding, Li, Li and Kulm (2010) also indicated that Chinese teachers believed that the reasons of student misbehaviours are related to the idea that students are lazy or have bad learning habits. According to the theory of explanatory styles, compared to teachers who blame themselves, the external explanatory style is more optimistic and causes less stress. From the interviews it should be also noted that teachers explained that EBD students were triggered by other reasons aside of classmates or families. These reasons were external factors from the teachers themselves. Meanwhile, teachers had confidence in the efforts they put onto students. This confidence comes from the internal traits of teachers. According to the theory of explanatory styles, this pattern, in which people explain that good things are related to their internal traits and bad things related to external factors, is an example of an optimistic explanatory style. This may be the reason that even though teachers have to face a lot of challenges, their anxiety levels are low.

The Contribution of the New Conceptual Framework

The first model about the mediation role of teachers' explanatory styles has been proven. There were two models in total in this research project. The second model explored how teachers' specific explanatory styles and emotions toward teaching EBD students have an effect on their general explanatory styles. However, this model was not supported by the results. If we only examined the model 1, it seems clear that there is a mutual cause-effect relationship between explanatory styles and emotions. Teachers' explanatory styles are built by emotions and have impacts on emotions. To have a clearer understanding about the relationship between explanatory styles and emotions, model 2 was examined. In model 2, the path from teachers' specific explanatory styles to their specific emotions was significant. However, the path from teachers' specific emotions to the explanatory styles was not significant. With the results of the two models, the mutual cause-effect relationship between the explanatory styles and emotions was not supported.

The Significance of the Validated Chinese Measurement

The translated and validated Chinese scale, CLHS, can be described as reliable. Chinese teachers comprise a huge group and are worthy of attention. These well-developed measurements are necessary in academic research. The CLHS has excellent internal reliability. A good correlation was also found between the CLHS and another Chinese scale about optimism, as well as among the CLHS and other Chinese anxiety measurements. Even though some new items need to be added into the measurement tool, this does offer a good way to measure teachers' general explanatory styles.

The Importance of Teacher Training in the Areas of Special Education

In relation to teaching EBD students, the teachers from special schools had significantly lower anxiety levels than teachers from ordinary schools. However, even with this result, it is hard to draw a simple conclusion that it is better to transfer students with EBD into special schools, as it is still worth exploring the hidden reasons which cause the differences. According to the first path in model 2, teachers' optimistic explanatory styles about teaching EBD students are related to the low anxiety level. Special schools have different contexts than those in ordinary schools. These external factors may have an effect on teachers' explanatory styles. However, these factors are difficult to change, by both teachers and policymakers. Some other possibilities which cause the differences in anxiety levels may come from factors such as confidence (Chong & Au, 2008) or expectancies (Vlachou, Dimitra & Metallidou, 2014) etc. Compared to the teachers in ordinary schools, the teachers from special schools undergo special teacher training. These special experiences may not only improve their teaching skills, but also have a silent transforming influence on their emotions. For policymakers or school leaders, providing some special trainings for their teachers may be a practicable good way to support teachers' emotions.

6.3 Areas to be Addressed in Future Research Studies

The relationships between emotions and explanatory styles are complex. The factors that influence emotions and explanatory styles are also complex. This research project was mainly focused on teachers' emotions and their explanatory styles related to the teaching of EBD students. Meanwhile, all the emotions and explanatory styles data were collected with self-reported methods. The advantage is that the research focused on teachers' own voices, not the opinions from third parties. However, the other characteristics are still important and may

affect possibilities, such as workplace conditions. In future studies, it would be worth examining the roles of other factors.

At the same time, some areas are still not well explained. For example, there were differences found in teachers' anxiety levels, however, differences in their explanatory styles were not found. For emotions, some researchers have found that the internal emotions of teachers and their expressions may cause the differences (Wang, Hall, Chiu, Goetz & Gogol, 2020), or the low arousal emotions of Easterners (Lim, 2016). In future research, it may be useful to understand more about teachers' explanatory styles, such as how do teachers express their explanations? Meanwhile, how the Chinese culture affects Chinese explanatory styles is an interesting topic. During the interviews, teachers' wisdom and optimistic Chinese slangs impressed the researcher, such as "you will cross the bridge when you get to it" which reflected the idea that, in the end things, will be solved; and "cover the sky as a quilt when it falls" which represented the idea that nothing is to worry about if it is smaller than when the sky falls.

6.4 Limitations

There are some limitations to this thesis. First, the sampling issues, e.g., the convenience sampling method and the middle sample size. As has already been mentioned, in the original research design a cluster sampling method was planned for the main study. To follow the research plan, all ordinary primary and secondary schools in Hong Kong had been listed and numbered. Around 100 numbers were picked at random using Microsoft Excel. Invitation letters were sent over email to those picked schools. However, due to the Covid-19 pandemic, the government announced class suspensions. With this special arrangement, only two rejection replies and one enquiry email was received. It was difficult to receive enough

replies in this random way. Considering that fact that the epidemic may last for a long time, the convenience sampling method was then adopted when collecting data from ordinary schools in the main study. Teachers from ordinary primary and secondary schools were contacted through different relationships, such as through supervisors' teacher networks, the researchers' teacher friends, friends' teacher friends etc. Meanwhile, the sample size was around 200 in the main study, which was about average compared to other studies. This may reduce the power of the results and increase the margin of error. To have a better generalisability of findings, more data should be collected with a random method in future research.

Secondly, a pilot test in ordinary schools was cancelled. In the original research design, there was another pilot test in ordinary schools. However, due to Covid-19 all the school arrangements changed. With counselling and discussions with professionals, the pilot test in ordinary schools was cancelled. In this case, all the items in the questionnaire were revised based on the results from the pilot study in SSD schools and following comments from professionals.

Thirdly, in the CLHS there were only two items in the Stability-Instability dimension, whereas the Internality-Externality dimension included eight items and the Globality-Specificity dimension included six items. More items should be introduced for the Stability-Instability dimension to have a similar number of items as the other two dimensions.

Fourthly, the individual interviews and the questionnaires are all self-reported methods. Even though the 6-point rating scale was adopted in the questionnaires to encourage participants to choose one side of an opinion, a multi-method assessment will be better. It will provide a

more global and accurate picture of subjects. For example, to record teachers' behaviours or to collect opinions from other persons etc. At the same time, the factors like school settings, policy, may also need to record.

References

Bibou-Nakou, I., Stogiannidou, A., & Kiosseoglou, G. (1999). The relation between teacher burnout and teachers' attributions and practices regarding school behaviour problems. *School Psychology International*, *20*(2), 209–217.

Boyer, W. (2006). Accentuate the positive: The relationship between positive explanatory style and academic achievement of prospective elementary teachers. *Journal of Research in Childhood Education*, *21*(1), 53–63.

Bradley, J. (2009). *Children and teachers' perceptions of ADHD and medication*. [Doctoral Thesis, University of Southampton].

Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research*, *21*(2), 230–258.

Buckles, M. (2018). *The effects of secondary teacher bias on instruction and classroom interaction: A qualitative multiple case study* (Publication No. 10813265) [Doctoral Thesis, Northcentral University]. ProQuest Dissertations Publishing.

Burns, M. K. (2000). Examining special education labels through attribution theory: A potential source for learned helplessness. *Ethical Human Sciences and Services*, *2*(2), 101–107.

Burns, M. O., & Seligman, M. E. P. (1989). Explanatory style across the life span: Evidence for stability over 52 years. *Journal of Personality and Social Psychology*, *56*(3), 471-477.

Campbell, J., Gilmore, L., & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual & Developmental Disability*, *28*(4), 369–379.

Černe, T., & Juriševič, M. (2018). The self-regulated learning of younger adolescents with and without learning difficulties-A comparative multiple case study, *Center for*

Educational Policy Studies Journal, 8(4), 9-28.

Chong, S. S. C., & Ng, K. K. W. (2011). Perception of what works for teachers of students with EBD in mainstream and special schools in Hong Kong. *Emotional and Behavioural Difficulties*, *16*(2), 173–188.

Chong, S., & Au, M. L. (2008). What works for teachers of students with emotional and behavioural difficulties in Hong Kong's special schools. *International Journal on School Disaffection*, *6*(1), 25–34.

Cohen, L., Manion, L., & Morrison, K. (2002). *Research methods in education* (6th ed.). Routledge.

Cook, B. G. (2002). Inclusive attitudes, strengths, and weaknesses of pre-service general educators enrolled in a curriculum infusion teacher preparation program. *Teacher Education and Special Education*, *25*(3), 262–277.

Creswell, J. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.

Ding, M., Li, Y., Li, X., & Kulm, G. (2010). Chinese teachers' attributions and coping strategies for student classroom misbehaviour. *Asia Pacific Journal of Education*, *30*(3), 321–337.

Dunn, D. S. (2002). Teaching about the good life: Culture and subjective well-being. *Journal of Social and Clinical Psychology*, *21*(2), 218–220.

Education Bureau. (2013). *Central co-ordinating referral mechanism.* https://www.edb.gov.hk/attachment/en/edu-system/special/support-subsidy/special-school/ccrm/ssd_4_ccrm_eng.pdf

Education Bureau. (2014). *Operation guide on the whole school approach to integrated*

education. https://www.edb.gov.hk/attachment/en/edu-system/special/support/wsa/ieguide_en.pdf

Education Bureau. (2017). *Mode of service provision for students with emotional and behavioural difficulties a conceptual framework.* https://www.edb.gov.hk/attachment/en/edu-system/special/support-subsidy/special-school/ccrm/ssd_3_Conceptual Framework and Illustrations_eng.pdf

Education Bureau. (2018). *Mode of support provided by schools for social development / residential homes.* https://www.edb.gov.hk/attachment/en/edu-system/special/support-subsidy/special-school/ccrm/ssd_2_mode of support_eng.pdf

Education Bureau. (2020). *School partnership scheme*. https://www.edb.gov.hk/en/edu-system/special/support-subsidy/special-school/school-partnership-scheme/index.html

Equal Opportunities Commission. (2012). *Study on equal learning opportunities for students with disabilities under the integrated education system*. *Hong Kong.* http://www.eoc.org.hk/EOC/Upload/ResearchReport/IE_eReport.pdf

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods. 4*(3), 272–299.

Farber, B. A. (1984). Stress and burnout in suburban teachers. *The Journal of Educational Research*, *77*(6), 325–331.

Filippello, P., Larcan, R., Sorrenti, L., Buzzai, C., Orecchio, S., &Costa, S. (2017). The mediating role of maladaptive perfectionism in the association between psychological control and learned helplessness. *Improving Schools*, *20*(2), 113–126.

Fineburg, A. C. (2010). *Examining explanatory style's relationship to efficacy and burnout in teachers*. (Publication No. 3409014) [Doctoral Thesis, The University of Alabama]. ProQuest Dissertations Publishing.

Fontana, D., & Abouserie, R. (1993). Stress levels, gender and personality factors in teachers. *British Journal of Educational Psychology*, *63*(2), 261–270.

Forlin, C. (2010). Teacher education reform for enhancing teachers' preparedness for inclusion. *International Journal of Inclusive Education*, *14*(7), 649–653.

Forlin, C., Douglas, G., & Hattie, J. (1996). Inclusive practices: How accepting are teachers? *International Journal of Disability, Development and Education*, *43*(2), 119–133.

Forlin, C., Loreman, T., Sharma, U., &Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education*, *13*(2), 195–209.

Georgiou, S. N., Christou, C., Stavrinides, P., & Panaoura, G. (2002). Teacher attributions of student failure and teacher behavior toward the failing student. *Psychology in the Schools*, *39*(5), 583–595.

Ghavifekr, S., & Pillai, N. S. (2016). The relationship between school's organizational climate and teacher's job satisfaction: Malaysian experience. *Asia Pacific Education Review*, *17*, 87–106.

Gillham, J., & Reivich, K. (2004). Cultivating optimism in childhood and adolescence. *The Annals of the American Academy of Political and Social Science*, *591*, 146–163.

Gillham, J. E., & Seligman, M. E. P. (1999). Footsteps on the road to a positive psychology. *Behaviour Research and Therapy*, *37*(1), 163–173.

Glen, S. (2016, May 11). *Kaiser-Meyer-Olkin (KMO) test for sampling adequacy*. https://www.statisticshowto.com/kaiser-meyer-olkin/

Gray, C., Wilcox, G., & Nordstokke, D. (2017). Teacher mental health, school climate, inclusive education and student learning: A review. *Canadian Psychology*, *58*(3), 203–210.

Hall, H. C., & Smith, B. P. (1999). Explanatory style of secondary vocational educators.

Journal of Vocational and Technical Education, *15*(2), 19–27.

Hammond, H., & Ingalls, L. (2003). Teachers' Attitudes toward inclusion: Survey results from elementary school teachers in three southwestern rural school districts. *Rural Special Education Quarterly*, *22*(2), 24–30.

Hammond, H., & Ingalls, L. (2003). Teachers' attitudes toward inclusion: Survey results from elementary school teachers in three southwestern rural school districts. *Rural Special Education Quarterly*, *22*(2), 24–30.

Hartman, C. A., Rhee, S. H., Willcutt, E. G., Bruce, ·, & Pennington, F. (2007). Modeling rater disagreement for ADHD: Are parents or teachers biased? *Journal of Abnormal Child Psychology*, *35*(4), 536–542.

Heflin, L. J., & Bullock, L. M. (1999). Inclusion of students with emotional/behavioral disorders: A survey of teachers in general and special education. *Preventing School Failure: Alternative Education for Children and Youth*, *43*(3), 103–111.

Hong Kong Professional Teachers' Union, & Division of Clinical Psychology. (2018). Nearly 30% of teachers have symptoms of moderate to severe depression and they need more support: The Hong Kong teachers vocational pressure survey investigation in 2018. https://www.hkptu.org/wp-content/uploads/2018/09/20180902-work-pressure.pdf

Hornby, G. (2014). *Inclusive special education: Evidence-based practices for children with special needs and disabilities*. York, NY: Springe

Hospital Authority (n.d.). *Anxiety-Test (GAD-7).* https://www3.ha.org.hk/CAMcom/channel.aspx?code=anxiety-test

Houston, E. (2020, October 12). What Are Attributional and Explanatory Styles in Psychology? https://positivepsychology.com/explanatory-styles-optimism/

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55.

Human Research Ethics Committee. (2016). *Summary of the HKIEd's Guidelines on Ethics in Research*.

Ip, K. (2016, May 13). The glass is half full for special needs schools. http://www.ejinsight.com/20160513-the-glass-is-half-full-for-special-needs-schools/

Jackson, D. (2001). *The Negative Halo Effect of Oppositional Defiant Behaviors on Teacher Ratings of ADHD: Impact of Child Gender*. (Publication No. 3026362) [Doctoral Thesis, The University of North Dakota]. ProQuest Dissertations Publishing.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika Volume*, *39*, 31–36.

Kalyva, E., Gojkovic, D., &Tsakiris, V. (2007). Serbian teachers' attitudes towards inclusion. *International Journal of Special Education*, *22*(3), 31–36.

Klein, E. M. (2008). *Explaining sport performance: The effects of explanatory style on perception of performance in college athletes*. (Publication No. 3325527) [Doctoral Thesis, Fairleigh Dickinson University]. ProQuest Dissertations Publishing.

Lacruz-Pérez, I., Sanz-Cervera, P., & Tárraga-Mínguez, R. (2021). Teachers' attitudes toward educational inclusion in Spain: A systematic review. *Education Sciences*, *11*(2), 1–16.

Lai, J. C. L. (1995). The moderating effect of optimism on the relation between hassles and somatic complaints. *Psychological Reports*, *76*(3), 883–894.

Lai, J. C. L., & Mak, A. J. H. (2009). Resilience Moderates the Impact of Daily Hassles on Positive Well-Being in Chinese Undergraduates. *Journal of Psychology in Chinese Societies*, *10*(2), 151–167.

Lai, J. C. L., Cheung, H., Lee, W., & Yu, H. (1998). The utility of the revised Life Orientation

Test to measure optimism among Hong Kong Chinese. *International Journal of Psychology*, *33*(1), 45–56.

Lai, J. C. L., Evans, P. D., Ng, S. H., Chong, A. M. L., Siu, O. T., Chan, C. L. W., Ho, S. M. Y., Ho, R. T. H., Chan, P., Chan, C. C. (2005). Optimism, positive affectivity, and salivary cortisol. *British Journal of Health Psychology*, *10*(4), 467–484.

Landry, N., Gifford, R., Milfont, T. L., Weeks, A., & Arnocky, S. (2018). Learned helplessness moderates the relationship between environmental concern and behavior. *Journal of Environmental Psychology*, *55*, 18–22.

Lee, W. O., & Manzon, M. (2014). The issue of equity and quality of education in Hong Kong. *The Asia-Pacific Education Researcher*, *23*(4), 823–833.

Leon, A. C., Davis, L. L., & Kraemer, H. C. (2011). The role and interpretation of pilot studies in clinical research. *Journal of Psychiatric Research*, *45*(5), 626–629.

Levin, B. S. (2019). *Gender Gap in Mathematics Achievement in Brazil: Teachers' Implicit Gender Bias*. (Publication No. 13814736.) [Doctoral Thesis, Columbia University]. ProQuest Dissertations Publishing.

Lewis-Beck, M. S., Bryman, A., & Liao, T. F. (2004). *The SAGE encyclopedia of social science research methods*. Sage Publications, Inc.

Liljequist, L., & Renk, K. (2007). The relationships among teachers' perceptions of student behaviour, teachers' characteristics, and ratings of students' emotional and behavioural problems. *Educational Psychology*, *27*(4), 557–571.

Lim, N. (2016). Cultural differences in emotion: differences in emotional arousal level between the East and the West. *Integrative medicine research*, *5*(2), 105-109.

Lune, H., & Berg, B. L. (2017). *Qualitative research methods for the social sciences*. Pearson.

Ma, X., & MacMillan, R. B. (1999). Influences of workplace conditions on teachers' job

satisfaction. *The Journal of Educational Research*, *93*(1), 39–47.

Maier, S. F. (1980). Learned helplessness and the schedule-shift hypotheses. *Journal of Research in Personality*, *14*(2), 170–186.

Maier, S. F., & Seligman, M. E. (1976). Learned helplessness: Theory and evidence. *Journal of Experimental Psychology: General*, *105*(1), 3–46.

Maier, S. F., & Seligman, M. E. P. (2016). Learned helplessness at fifty: Insights from neuroscience. *Psychological Review*, *123*(4), 349–367.

Manassero, A., García-Buades, E., Torrens, G., Ramis, C., Vázquez, Á., & Ferrer, V. A. (2006). Teacher burnout: Attributional aspects. *Psychology in Spain*, *10*(1), 66–74.

Maras, P. F., Moon, A., & Gridley, N. (2014). Attribution style of adolescents with school-reported social, emotional and behavioural difficulties. *Emotional and Behavioural Difficulties*, *19*(4), 426–439.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour, 2*, 99-113.

McDonald, R. P., & Ho, M. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods, 7*, 64–82.

McInerney, D. M., Korpershoek, H., Wang, H., & Morin, A. J. S. (2018). Teachers' occupational attributes and their psychological wellbeing, job satisfaction, occupational self-concept and quitting intentions. *Teaching and Teacher Education*, *71*, 145–158.

Neves de Jesus, S., & Lens, W. (2005). An integrated model for the study of teacher motivation. *Applied Psychology*, *54*(1), 119-134.

Papatheodorou, T. (1995). *Teachers' attitudes toward children's behaviour problems in nursery classes in Greece and the management techniques employed* (Publication No.

U077321) [Doctoral Thesis, The University of Wales College of Cardiff (United Kingdom)]. ProQuest Dissertations Publishing.

Pearson, V., Lo, E., Chui, E., & Wong, D. (2003). A heart to learn and care? Teachers' responses toward special needs children in mainstream schools in Hong Kong. *Disability and Society*, *18*(4), 489–508.

Peterson, C., & Barrett, L. C. (1987). Explanatory Style and Academic Performance Among University Freshmen. *Journal of Personality and Social Psychology*, *53*(3), 603–607.

Peterson, C., & Park, N. (2007). Explanatory style and emotion regulation. In J. J. Gross (Ed.), *Handbook of emotion regulation* (1st ed., pp. 159–179). New York: Guilford Press.

Peterson, C., & Steen, T. A. (2002). Optimistic explanatory style. In C. R. Snyder & S. J. Lopez (Eds.). *Handbook of positive psychology* (pp.244-256). Oxford University Press.

Peterson, C., Buchanan, G. M., & Seligman, M. E. P. (1995). Explanatory style: History and evolution of the filed. In M. E. P. Seligman & G. M. Buchanan (Eds.), *Explanatory style* (pp. 1-20). Lawrence Erlbaum.

Phares, V., & Danforth, J. S. (1994). Adolescents', parents', and teachers' distress over adolescents' behavior. *Journal of Abnormal Child Psychology*, *22*(6), 721–732.

Pillay, H., Goddard, R., & Wilss, L. (2005). Well-being, burnout and competence: Implications for teachers. *Australian Journal of Teacher Education*, *30*(2), 22–33.

Poulou, M., & Norwich, B. (2000). Teachers' causal attributions, cognitive, emotional and behavioural responses to students with emotional and behavioural difficulties. *British Journal of Educational Psychology*, *70*(4), 559–581.

Quinless, F. W., & Nelson, M. A. M. (1988). Development of a measure of learned helplessness. *Nursing Research*, *37*(1), 11–15.

Qutaiba, A. (2010). The relationship between the level of school-involvement and "Learned helplessness" among special-education Arab-Palestinian teachers in Israel. *Procedia Social and Behavioral Sciences*, *5*, 1326–1333.

Qutaiba, A. (2011). The relationship between the level of school-involvement and learned helplessness among special-education teachers in the Arab sector. *Australian Journal of Teacher Education*, *36*(2), 1–15.

Rasmussen, H. N., Scheier, M. F., & Greenhouse, J. B. (2009). Optimism and physical health: A meta-analytic review. *Annals of Behavioral Medicine*, *37*(3), 239–256.

Ratcliffe, S. (Ed.). (2017). *Oxford essential quotations* (5 ed.). Oxford University Press.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*, 141–166.

Salend, S. J. (2001). *Creating inclusive classrooms: Effective and reflective practices* (4th ed.). New Jersey: Merrill.

Sarros, J. C., & Sarros, A. M. (1992). Social support and teacher burnout. *Journal of Educational Administration*, *30*(1), 55-69.

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, *4*(3), 219–247.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, *67*(6), 1063–1078.

Seligman, M. E. P. (2006). *Learned optimism : How to change your mind and your life*. United States: Vintage Books.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14.

Seligman, M. E. P., Reivich, K., Jaycox, L., & Gillham, J. (1995). *The optimistic child*. Boston, Mass: Houghton Mifflin.

Smallheer, B. A. (2011). *Learned helplessness and depressive symptoms in patients following acute myocardial infarction*(Publication No. 3479899) [Doctoral Thesis, Vanderbilt University]. ProQuest Dissertations Publishing.

Smith, B. P., Hall, H. C., & Woolcock-Henry, C. (2000). The effects of gender and years of teaching experience on explanatory style of secondary vocational teachers. *Journal of Vocational Education Research*, *25*(1), 21–23.

So, C. H. (2005). Perspective towards inclusive education in Macao. *US-China Education Review, 2*(11), 52-64.

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166*(10), 1092–1097.

Staats, C., Capatosto, K., Wright, R. A., & Jackson, V. W. (2016). *State of the Science: Implicit Bias Review 2016*. The Kirwan Institute. http://kirwaninstitute.osu.edu/wp-content/uploads/2016/07/implicit-bias-2016.pdf

Sunstein, C. R., & Jolls, C. (2006). The Law of Implicit Bias. California Law Review, Forthcoming, Harvard Law and Economics Discussion Paper No. 552, U Chicago Law & Economics, Olin Working Paper No. 289, U of Chicago, Public Law Working Paper No. 124. https://ssrn.com/abstract=897553

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, *48*(6), 1273-1296.

Talbott, E., Zurheide, J. L., Karabatsos, G., & Kumm, S. (2021). similarity in teacher ratings of the externalizing behavior of twins: A meta-analysis. *Behavioral Disorders*, *46*(2), 80–95.

Tam, S. K. T. (2003). Locus of control, attributional style and discipline problems in secondary schools. *Early Child Development and Care*, *173*(5), 455–466.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53–55.

Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L. P., … Goldsmith, C. H. (2010). A tutorial on pilot studies: The what, why and how. *BMC Medical Research Methodology*, *10*(1), 1–10.

The Curriculum Development Council (n.d.). Guide to curriculum for maladjusted children. https://cd.edb.gov.hk/la_03/chi/curr_guides/Maladjusted/index-ema.htm.

Tristani, L., & Bassett-Gunter, R. (2020). Making the grade: teacher training for inclusive education: A systematic review. *Journal of Research in Special Educational Needs*, *20*(3), 246–264.

UNESCO. (2017). A guide for ensuring inclusion and equity in education. https://unesdoc.unesco.org/ark:/48223/pf0000248254.

UNESCO. (2020). What you need to know about the right to education. https://en.unesco.org/news/what-you-need-know-about-right-education

United Nations. (n.d.). *Universal declaration of human rights*, United Nations. https://www.un.org/en/about-us/universal-declaration-of-human-rights

Vlachou, A., Dimitra, E., & Metallidou, P. (2014). Do learning difficulties differentiate elementary teachers' attributional patterns for students' academic failure? A comparison between Greek regular and special education teachers. *European Journal of Special Needs Education*, *29*, 1–15.

Waldron, N. L., McLeskey, J., & Pacchiano, D. (1999). Giving teachers a voice: Teachers' perspectives regarding elementary inclusive school programs (ISP). *Teacher Education and Special Education, 22*(3), 141- 153.

Wang, H., & Hall, N. C. (2018). A Systematic Review of teachers' causal attributions: Prevalence, correlates, and consequences. *Frontiers in Psychology*, *9*, 2305.

Wang, H., Hall, N. C., & Rahimi, S. (2015). Self-efficacy and causal attributions in teachers: Effects on burnout, job satisfaction, illness, and quitting intentions. *Teaching and Teacher Education*, *47*, 120–130.

Wang, H., Hall, N. C., Chiu, M. M., Goetz, T., & Gogol, K. (2020). exploring the structure of teachers' emotional labor in the classroom: A multitrait–multimethod analysis. *Educational Measurement: Issues and Practice*, *39*(3), 122–134.

Xia, Y., & Yang, Y. (2019). RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods. *Behavior Research Methods*, *51*(1), 409–428.

Yan, Z., & Sin, K. F. (2014). Inclusive education: Teachers' intentions and behaviour analysed from the viewpoint of the theory of planned behaviour. *International Journal of Inclusive Education*, *18*(1), 72–85.

Yull, A. (2015). The impact of race and socioeconomic status on access to accommodations in postsecondary education. *Journal of Gender, Social Policy and the Law*, *23*(2), 353–392.

Zhao, S. (2016, May 5). Tuen Mun principal hits out at plan to build special needs school nearby, *South China Morning Post*. https://www.scmp.com/news/hong-kong/education-community/article/1941409/tuen-mun-principal-hits-out-plan-build-special

Appendix A: Chinese Revised Learned Helpless Scale (CLHS)

習得無助量表（中文版）

請在下列方格內挑選☑出最接近對你的描述或最接近你的想法的描述。

	極度同意	同意	些微同意	些微不同意	不同意	極不同意
1. 無論我投放了多少精力去做一項工作，仍沒法控制結果。	☐	☐	☐	☐	☐	☐
2. 我認為我解決問題的能力是我成功的原因。	☐	☐	☐	☐	☐	☐
3. 我能找到解決難題的方法。	☐	☐	☐	☐	☐	☐
4. 我不會把自己放在無法預測結果的情況中。	☐	☐	☐	☐	☐	☐
5. 如果我成功地完成一項工作，那很可能是因為我的能力。	☐	☐	☐	☐	☐	☐
6. 我有能力解決大部分人生疑難。	☐	☐	☐	☐	☐	☐
7. 如果我在一項工作上無法取得成功，我不會嘗試其他類似的工作，因為我認為會再次失敗。	☐	☐	☐	☐	☐	☐
8. 當某些事情沒有按照我計劃的方式發展時，我知道這是因為我沒有能力去進行那些工作。	☐	☐	☐	☐	☐	☐
9. 其他人比我更能控制他們自己的成功及 / 或失敗。	☐	☐	☐	☐	☐	☐
10. 即使過往我曾在類似的工作上失敗，我仍會做新的嘗試。	☐	☐	☐	☐	☐	☐
11. 如果我表現差，那是因為我沒有能力做得更好。	☐	☐	☐	☐	☐	☐
12. 即使我不肯定我會取得成功，我仍會接受工作。	☐	☐	☐	☐	☐	☐
13. 我認為我不太能控制我的工作成果。	☐	☐	☐	☐	☐	☐
14. 我能在大部分工作上取得成功。	☐	☐	☐	☐	☐	☐
15. 我認為在大部分工作上，任何其他人都會比我做得更好。	☐	☐	☐	☐	☐	☐
16. 我有能力達成人生目標。	☐	☐	☐	☐	☐	☐
17. 當我不能在一項工作上取得成功，我會將失敗歸咎於自己的愚蠢。	☐	☐	☐	☐	☐	☐

	極度同意	同意	些微同意	些微不同意	不同意	極不同意
18. 不管我多努力嘗試，事情總不會如我所想的那樣發展。	☐	☐	☐	☐	☐	☐
19. 我認為我的成功反映了我的能力，並非偶然。	☐	☐	☐	☐	☐	☐
20. 我的行為似乎會影響工作團隊的成功。	☐	☐	☐	☐	☐	☐

Notes: The Chinese revised scale was based on the Learned Helpless Scale (LHS) (Quinless & Nelson,1988) by the author of this thesis.

Appendix B: Additions to Table 7 with the items in both Chinese and English

(The English version of the items were the original items from the Learned Helpless Scale (LHS).

The authors of the LHS are the late Mary Ann Nelson McDermott, PhD and Frances Ward, PhD)

Common factor analysis of C-LHS with group 1 (N=122)

Item	Factor 1	Factor 2	Factor 3
1 無論我投放了多少精力去做一項工作，仍沒法控制結果。No matter how much energy I put into a task, I feel I have no control over the outcome.	.431		
2 我認為我解決問題的能力是我成功的原因。I feel that my ability to solve problems is the cause of my success.		.652	
3 我能找到解決難題的方法。I can find solutions to difficult problems.		.455	.422
5 如果我成功地完成一項工作，那很可能是因為我的能力。If I complete a task successfully, it is probably because of my ability.		.793	
6 我有能力解決大部分人生疑難。I have the ability to solve most of life's problems.		.741	
7 如果我在一項工作上無法取得成功，我不會嘗試其他類似的工作，因為我認為會再次失敗。When I do not succeed at a task, I do not attempt any similar tasks because I feel that I would fail them also.	.643		.356
8 當某些事情沒有按照我計劃的方式發展時，我知道這是因為我沒有能力去進行那些工作。When something doesn't turn out the way I planned, I know it is because I didn't have the ability to start with.	.821		
9 其他人比我更能控制他們自己的成功及／或失敗。Other people have more control over their success and/or failure than I do.	.723		
10 即使過往我曾在類似的工作上失敗，我仍會做新的嘗試。I try new tasks if I have failed similar ones in the past.			.863
11 如果我表現差，那是因為我沒有能力做得更好。When I perform poorly, it is because I don't have the ability to perform better.	.760		
12 即使我不肯定我會取得成功，我仍會接受工作。I accept tasks even if I am not sure that I will success at them.			.778
13 我認為我不太能控制我的工作成果。I feel that I have little control over the outcomes of my work.	.633		
14 我能在大部分工作上取得成功。I am successful at most tasks I try.	.333	.652	

Item	Factor 1	Factor 2	Factor 3
15 我認為在大部分工作上，任何其他人都會比我做得更好。I feel that anyone else could be better than me at most tasks.	.601		
16 我有能力達成人生目標。I am able to reach my goals in life.	.377	.547	.321
17 當我不能在一項工作上取得成功，我會將失敗歸咎於自己的愚蠢。When I don't succeed at a task, I find myself blaming my own stupidity for my failure.	.732		
18 不管我多努力嘗試，事情總不會如我所想的那樣發展。No matter how hard I try, things never seem to work out the way I want them to.	.725		
19 我認為我的成功反映了我的能力，並非偶然。I feel that my success reflects my ability, not chance.		.643	
20 我的行為似乎會影響工作團隊的成功。My behavior seems to influence the success of a work group.		.499	

Notes: Factor 1 is the Internality-Externality dimension; Factor 2 is the Globality-Specificity dimension; Factor 3 is the Stability-Instability dimension; Items: no 3, 7 and 16 were deleted in the C-LHS.

Appendix C: Chinese Learned Helpless about teaching Students with Emotional and Behavioural Difficulties (CLH-EBD)

關於教導有情緒及行為問題學生的習得無助問卷（中文版）

請在下列方格內挑選☑出最接近對你的描述或最接近你的想法的描述。

	極度同意	同意	些微同意	些微不同意	不同意	極不同意
1. 能否成功教導有情緒及行為問題的學生要看運氣。	☐	☐	☐	☐	☐	☐
2. 我很少預計好行為會發生在有情緒及行為問題的學生身上。	☐	☐	☐	☐	☐	☐
3. 不管我多努力嘗試，有情緒及行為問題的學生總不會如我所想的那樣。	☐	☐	☐	☐	☐	☐
4. 只有某幾個有情緒及行為問題的學生難以教導。	☐	☐	☐	☐	☐	☐
5. 有情緒及行為問題學生的問題是永久性的。	☐	☐	☐	☐	☐	☐
6. 可以和有情緒及行為問題的學生好好相處，是因為我付出了很多的努力和做了很多的嘗試。	☐	☐	☐	☐	☐	☐

Notes: The items were developed by the author of this thesis.

Appendix D: The English version of the Chinese Learned Helpless about teaching Students with Emotional and Behavioural Difficulties (CLH-EBD)

Please place a check in the box that most closely describes you or your feelings about yourself. Thank you.

	Strongly Agree	Agree	Slightly Agree	Disagree	Slightly Disagree	Strongly Disagree
1. Success in teaching students with EBD depends on luck.	☐	☐	☐	☐	☐	☐
2. I rarely count on good things happening to the students with EBD.	☐	☐	☐	☐	☐	☐
3. No matter how hard I try, the students with EBD never seem to follow the way I want them to.	☐	☐	☐	☐	☐	☐
4. Only certain EBD students are difficult to teach.	☐	☐	☐	☐	☐	☐
5. The problems of the students with EBD are permanent.	☐	☐	☐	☐	☐	☐
6. If I can get along well with the EBD students, it is because I have made a lot of efforts and attempts.	☐	☐	☐	☐	☐	☐

Notes: The items were developed by the author of this thesis.

Appendix E: Participant Consent Form

THE EDUCATION UNIVERSITY OF HONG KONG
DEPARTMENT OF SPECIAL EDUCATION & COUNSELLING

CONSENT TO PARTICIPATE IN RESEARCH

Examining the Role of the Teachers' Explanatory Style toward Teaching Students with Emotional and Behavioural Difficulties (EBD) in Inclusive Education

I _____ hereby agree to participate in the captioned research supervised by Professor SIN Kuen Fung and conducted by Ms. LUAN Xinchang, who are the academic staff and PhD candidate of Department of Special Education & Counselling at The Education University of Hong Kong.

I understand that information obtained from this research may be used in future research and may be published. However, my right to privacy will be retained, i.e., my personal details will not be revealed.

The procedure as set out in the **attached** information sheet has been fully explained. I understand the benefits and risks involved. My participation in the project is voluntary.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Name of participant _____

Signature of participant _____

Date _____

Appendix F: Research Information Sheet

Examining the Role of the Teachers' Explanatory Style toward Teaching Students with Emotional and Behavioural Difficulties (EBD) in Inclusive Education

You are invited to participate in a project supervised by Professor SIN Kuen Fung and conducted by Ms. LUAN Xinchang, who are the academic staff and PhD candidate of the Department of Special Education & Counselling in The Education University of Hong Kong.

This study is a research on what teachers' explanatory style are and what the role of these explanatory styles when teaching students with EBD is. We would like to invite you to take part in our study. To collect the real cases in the daily teaching environment, about 1 to 2 teachers will be invited to assist the school/classroom observation for somedays. The class observation will not be audio/videotaped. About 2 to 3 teachers will be invited to attend an interview for about 30 minutes to 1 hour. For research purposes, the interview will be audio recorded. Lastly, teachers will help to finish a ten-minute questionnaire. The study does not involve potential risks. The purpose of this study is to recruit about 6 teachers from ordinary schools, about 3 teachers from SSD school for interview; about 30 teachers from ordinary schools for pilot study questionnaire; about 100 teachers from ordinary schools, about 30 teachers from SSD schools for main study questionnaire.

Please understand that your participation is voluntary. You have every right to withdraw from the study at any time without negative consequences. The specific arrangements such as school observation, classroom observation, interview and questionnaire will be discussed by the researcher, you and your school. All information collected will be kept strictly confidential and treated for research purposes only. The research results will be presented in the forms like thesis, paper, poster or conference presentation etc. If you wish to obtain relevant information, you may contact the researcher at any time.

If you would like to obtain more information about this study, please contact me, Ms. Sunshine LUAN Xinchang, at sunshine@s.eduhk.hk or my supervisor Professor SIN Kuen Fung at kfsin@eduhk.hk.

If you have any concerns about the conduct of this research study, please do not hesitate to contact the Human Research Ethics Committee by email at hrec@eduhk.hk or by mail to Research and Development Office, The Education University of Hong Kong.

Thank you for your interest in participating in this study.

LUAN Xinchang
Principal Investigator

Appendix G: Interview Guideline (English)

- Teachers' basic information: professional background, teaching experience, post etc.
- To identify the EBD students from the observed classes.
- Questions about teachers' explanations toward students' behaviours and emotions in the observed classes.
- Questions about teachers' explanations toward the interactions with students in the observed classes.
- Other significant experience of teachers: with the students with and without EBD; the most common cases; the extreme/special cases etc.
- Comments on the EBD students
- Comments on their work: What are the challenges and limits you faced? Do you have stress? etc.
- Others