A Project entitled

# *A Study on Resilience and Efficacy of Pre-service Teachers at the kindergarten level*

Submitted by

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# Declaration

I, , declare that this research report represents my own work

under the supervision of ECE4252 Honours Project II: Research Report and *Dr Zhou, Yan Ling*, and that it has not been submitted previously for examination to any tertiary institution.

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## Abstracts

The purpose of this article was to investigate the relationship between resilience and efficacy among pre-service teachers of early childhood. Data for the study were collected from 95 pre-service teachers of early childhood education who had completed their practicum at a university in Hong Kong. The study will provide strategies and recommendations for educational organizations and pre-service teachers on how to improve resilience and sense of efficacy.

*Keywords: pre-service early childhood teachers, resilience, sense of efficacy, Hong Kong*

## Introduction

According to a report released by the United Nations Educational, Scientific and Cultural Organization, the world urgently needs 44 million teachers by 2030 in order to achieve the Sustainable Development Goals (United Nations, 2024). Moreover, in this situation, the rate of teacher turnover remains high. Hong Kong's kindergartens are losing teachers at a rate of more than 10% in each of the years 2017-2021 (HKSAR Government, 2021). Yost (2006) points out that a better solution is to try to retain teachers who are already qualified, with a particular focus on new teachers who are just entering the teaching profession.

Based on my personal experience and interest, during my internship in kindergarten, teachers were heavily loaded as they took care of the children the whole day and then worked on lesson planning and environment creation after class. Pre-service teachers who are new to the field may encounter more challenges and stress. Why is it that some people are more likely to experience emotional distress while others adapt well to the same stressful events? The concept of resilience is involved here. Simply put, resilience is the process and ability to express an individual's recovery when faced with a stressful event (Yang, 2005). Prior research has found that a critical factor in teacher retention and classroom success is a teacher's ability to adapt to situations and increase competence under disadvantageous conditions (Bobek, 2002). The concept of resilience helps new teachers promote well-being as they face the challenges of beginning their teaching careers (Johnson et al., 2014). Teachers who are new to the

teaching profession and are well-adjusted are considered to have good resilience (Le Cornu, 2009).

On the other hand, pre-service teachers' self-efficacy can also increase retention. Some studies point to self-efficacy as a predictor of resilience as well (Nowicki, 2008; Benight & Cieslak, 2011; Cassidy, 2015; Narayanan & Weng, 2016). Colson (2017) mentioned that new teachers with a strong sense of efficacy will remain in the teaching profession. This is because teachers with a sense of efficacy believe they can handle unexpected challenges (Colson, 2017). Pre-service teachers or teachers in the early stages of their careers face a great deal of stress and challenges, including dealing with student behavioral issues and improving the quality of teaching. Resilience and efficacy are essential factors for pre-service teachers in dealing with these challenges and stressors. Teacher efficacy is a teacher's belief in his or her ability to perform the teaching task in question (Bandura, 1993). Teacher efficacy is significant. Prior research has found that teacher efficacy affects not only teachers' attitudes and teaching behaviors but also student performance (Caprara et al., 2006). Some research suggests that teacher efficacy is critical to delivering high-quality preschool programs as well as improving developmental and learning outcomes for young children (Park, 2016).

In the existing social context, it is essential for teachers to be in a good state, to adjust quickly, and to have efficacy, which affects not only how teachers feel emotionally

but also how students feel. Therefore, it is vital to study the relationship between resilience and efficacy of early childhood pre-service teachers in order to provide appropriate strategies and recommendations for educational institutions and pre-service teachers. However, there is still much uncertainty regarding the relationship between teachers' efficacy and resilience, and research on pre-service teachers is limited. Therefore, the purpose of this study was to investigate the relationship between resilience and efficacy among pre-service early childhood teachers using a quantitative approach.

**Backgrounds**

Students studying Early Childhood Education at The Education University of Hong Kong (EDUHK) can choose to register as teachers after training. The EDUHK offers two types of programs for students to choose from: the five-year Bachelor of Education with Honours (BEd(Hons)) program and the two-year Higher Degree (HD) program.

The five-year Bachelor of Education (Honours) program offers a more comprehensive range of professional knowledge and practical experience. Students will study in-depth psychology, pedagogy, curriculum design, and other related subjects for over five years and undertake several practice and research projects. This curriculum gives students a more comprehensive understanding of the theories and practices in the field of early childhood education and prepares them for their future teaching work. Alternatively, students majoring in Early Childhood Education may take a two-year

higher degree program. This type of program is more concise and mainly focuses on the basic knowledge and practical skills related to early childhood education. Although the duration of the program is shorter, students will still be able to acquire a certain degree of professional knowledge and practical experience. They will be able to undertake a certain degree of the internship.

## Literature Review

### Resilience

Masten et al. (1990) defined *resilience* as "the process, ability, or outcome of successfully adapting despite a challenging or threatening environment" (p. 425). Resilience is an intrinsic strength, the ability of students to face adversity and setbacks fearlessly and work to positively minimize negative influences when they encounter them so that they can quickly return to their normal state (Liao, 2020). Beltman et al. (2011) reviewed the research on teacher resilience. They defined *teacher resilience* as a dynamic process or outcome between a person and the environment over the result of interactions over time.

Resilience can be divided into intrinsic and extrinsic factors (Yang, 2005). Intrinsic refers to the individual's mental abilities and traits. The extrinsic component is interactions with others, including family, school, neighborhood, and peers. This characteristic has also been found in studies of teacher resilience, both in the protective factors that support teachers when they face adversity and personal

protective factors, including teachers' attributes (e.g., strong intrinsic motivation to teach, positive attitudes), self-efficacy and other contextual protective factors, which include a variety of sources of support, (e.g., positive student-teacher relationships, mentoring programs, colleagues, family, friends, etc.) (Beltman et al., 2011).

In more detail, Fedrickon considers resilience to be a "psychological construct," framed by the broaden and build theory of positive emotions, such as happiness, interest, contentment, and love, which can contribute to an individual teacher's ability to stimulate psychological resilience (Chen, 2014). On the other hand, some argue that resilience is a "social construct" that requires a caring educational environment, positive learning environments, and community and peer support. In summary, psychological constructs favor the view that resilience is related to personal traits and abilities. In contrast, sociological constructs suggest that resilience results from interaction between the individual and the environment (Bo & Zhou, 2021).

Friborg et al.'s (2003) Resilience Scale for Adults (RSA) contains Personal competence, social competence, personal structure, family coherence, and social support, five latitude scales to measure the protective factors of individuals coping with adversity. The scale is mainly associated with the assessment of conditions such as depression/anxiety.

Considering that the subjects of this study are pre-service teachers who are in college,

they may differ from adults who are fully working and living independently in terms of social/family, etc. So, I searched for scales more relevant to the participant's identity. That is the Resiliency Scale of University Students developed by Yang (2005). This scale was used to investigate pre-service teachers' current state of resilience (Xie, 2012) and the resilience of early childhood teachers (Sheng, 2017). The questionnaire has six subscales: self-efficacy, self-acceptance, stability, problem-solving, friend support, and family support. Yang (2005) mentioned that the questionnaire was designed with the following considerations: Individuals who are confident in their self-efficacy and who perceive themselves to be desirable and valuable are better able to maintain a good and positive state of mind when faced with a crisis scenario. Emotionally stable individuals are less likely to be affected by negative emotions such as anxiety and depression and are more likely to persevere through difficult situations. An upbeat problem-solving style and willingness to seek help from others help individuals resolve their problems more quickly. The support of friends and family in the college community is often helpful in relieving psychological stress, overcoming negative emotions, and increasing courage and confidence. This scale is a good measure of both internal and external factors, for example, questions assessing personal traits/abilities such as "I get angry easily," "I often solve problems in my life according to the priority of the matter," and questions assessing interactions with others such as "I often ask my friends for help when I am in trouble" "I often get emotional support from my family."

**Teacher efficacy**

Teacher efficacy refers to a teacher's belief in his or her ability to impact student learning positively (Li & Liu, 2000). Theoretically, teacher efficacy influences teacher performance in teaching practices, motivational styles, teaching beliefs, and effort, affecting student motivation and achievement (Duffin et al., 2012). High teacher efficacy represents the tendency of teachers to use a variety of positive teaching strategies, even when faced with challenging situations.

Gibson and Dembo (1984) categorized teacher efficacy into two latitudes: personal teaching efficacy and general teaching efficacy. Personal teaching efficacy assesses teachers' beliefs about their teaching abilities and skills. For example, teachers believe that they have the ability or sufficient training or experience to overcome those factors that hinder student learning. General teaching efficacy assessed teachers' beliefs about being constrained by external factors (e.g., students' home environment/socioeconomic status). For example, there is little a teacher can do if a student is struggling to learn because most of the student's motivation and performance depends on his or her home environment. In other words, general teaching efficacy refers to the belief that a teacher can assist a student despite external pressures and constraints.

Bandura proposed two core concepts, efficacy expectations, and outcome expectations, to explain self-efficacy (1977). Efficacy expectancies are an individual's belief that he or she can successfully perform behaviors that call for a certain

outcome. Outcome expectancy is an individual's estimate that a fixed behavior will lead to a certain outcome. Gibson et al. (1984) argue that the two types of teacher efficacy reflect precisely two types of expectancy: general teaching efficacy reflects outcome expectancy. In contrast, individual teaching efficacy reflects efficacy expectancy.

Tschannen-Moran & Hoy (1988) developed a new efficacy scale called Teachers' Sense of Efficacy Scale (TSES), which measures three dimensions: student engagement, instructional strategies, and class management. The scale measures three dimensions: student engagement, instructional strategies, and class management. The scale abandons the notion of general teaching efficacy and focuses all questions on measuring individual teaching efficacy (li, 2021). This paper focuses on teachers' perceptions and evaluations of their teaching effectiveness and personal teaching efficacy, so this scale is well-suited.

The TSES is widely used, and many pre-service teachers' sense of efficacy measures use this questionnaire. Duffin et al. (2012) mentioned that the TSES is also becoming the main measure of pre-service teachers' sense of efficacy. Ngidi & Ngidi (2019) measured pre-service teachers' sense of teacher efficacy in South Africa using the TSES and mentioned that pre-service teachers' sense of teacher efficacy and personality traits, namely neuroticism (N) and extraversion (E), are unrelated. Clark and Newberry (2019) used the TSES short form (12-item short form) to examine pre-

service teachers' self-efficacy and whether specific teacher education experiences predicted teachers' self-efficacy. However, the authors of the TSES recommend measuring pre-service teachers' sense of efficacy using the full 24-item scale as much as possible because the factor structure often needs to be more distinct for these respondents (Tschannen-Moran & Hoy, 1988). Also, many studies have used this scale to rate the efficacy of early childhood educators (Gooden, 2016; Kihoro & Bunyi, 2017) and even early childhood pre-service teachers (Lee, 2019).

**The impact of different levels of education on resilience**

There is a paucity of investigations on the impact of different levels of education on resilience. For nurses as a study population, it was found that there is a strong association between the highest level of education and the level of resilience; nurses with a Bachelor's degree are about three times more likely to have moderate/high resilience than nurses with only a general nursing certificate (Ang et al., 2018). The article explains that, i.e., those who are better educated are more willing to tackle challenges and new opportunities (Ang et al., 2018). Another survey on social resilience in the context of the epidemic also showed some differences in social resilience between different educational groups (Alizadeh & Sharifi, 2021). This has been explained by how education changed dramatically during the pandemic, such as the closure of schools and other learning spaces and shifting education to online and distance learning. This difficulty significantly affected those with low levels of academic education (Alizadeh & Sharifi, 2021).

**The effect of different levels of education on the sense of efficacy**

Beltman (2011) mentioned that short-term programs (one-year programs) may struggle to impact the beliefs and practices of student teachers. In contrast, the situation may change with participation in a four-year program. Ross (1996) mentioned that part of a college program predicts teachers' ability to teach afterward because the program provides students with adequate preparation. When they feel well prepared, their teachers' teaching efficacy is higher Ross (1996). Research has also been conducted to compare the impact of a year-long student teaching practicum versus a traditional semester-long (16-week) practicum on teacher educators' teaching effectiveness (Colson, 2017). The results showed that students with longer practicums scored significantly higher on teacher efficacy, student engagement, and classroom management, and they were more confident in their abilities (Colson, 2017). Not coincidentally, Putman's (2012) investigation noted differences in teacher efficacy between groups of pre-service and in-service teachers at different levels of experience.

However, there is little research comparing the impact of education level on resilience and sense of efficacy for pre-service teachers, especially early childhood teachers. It needs to be clarified whether early childhood pre-service teachers show differences in resilience and sense of efficacy across educational diplomas.

**The relationship between teacher self-efficacy and resilience**

A study in Taiwan found that primary school in-service teachers showed a low to moderate positive correlation between resilience and teaching efficacy as a whole and at all levels (Xu, 2011). Another Taiwanese study found that high school in-service teachers' resilience was moderately positively related to efficacy (Liao, 2020). A study supported by the Finnish Education Bureau: pre-service teachers' self-efficacy in implementing inclusive practices and resilience in Finland. This study concluded that pre-service teachers' resilience and self-efficacy in implementing inclusive education are related (Yada, 2021).

However, there is no relevant research on early childhood pre-service teachers. In this paper, I aim to find a positive correlation between resilience and efficacy in a group of early childhood pre-service teachers in a Hong Kong setting. Moreover, the resilience scale developed in the Finnish study consisted of only nine questions and did not assess family/friend support in detail. Therefore, I am more interested in quantitatively exploring the relationship between resilience and sense of efficacy among different dimensions of pre-service teachers.

**Sense of efficacy predicts resilience**

Some studies have pointed out that self-efficacy is also a predictor of resilience (Nowicki, 2008; Benight & Cieslak, 2011; Cassidy, 2015; Narayanan & Weng, 2016). Bandura (1977) referred to the positive impact of self-efficacy on human resilience. The literature broadly categorizes efficacy as affecting resilience in two ways: one is

belief confidence, and the other is persistence.

Bender and Ingram (2018) explained that self-efficacy contributes to resilience in that individuals have a degree of belief in their ability to control their social environment, and this valid belief may promote resilient attitudes and behaviors. In other words, when individuals have confidence in their abilities, they are more likely to take positive actions to cope with difficulties and challenges, thus enhancing resilience. Yada (2021) states that teachers' beliefs about their abilities affect their persistence and resilience in difficult situations.

Beltman et al. (2011) mentioned that for teachers to be resilient and effective, they need a strong and persistent sense of efficacy. In addition to confidence and beliefs, self-efficacy predicts resilience regarding coping strategies and persistence. Hamill (2003) mentions that people find it difficult to persist in the face of difficulty unless they believe that they will be able to achieve the desired goal through their actions. Self-efficacy may affect an individual's ability to adapt and be flexible in dealing with difficult situations, as well as their ambitions and perseverance in the face of failure (Hamill, 2003).

In summary, a sense of efficacy is essential in developing resilience in adversity. Cassidy (2015) stated that teachers' sense of efficacy profoundly impacts resilience and perseverance, as reflected in the fact that a sense of efficacy is related to intrinsic motivation for teaching and learning, professional ambition, perseverance, achievement, and drive.

## Aim

In order to clarify the current state of resilience efficacy in a population of early childhood pre-service teachers, whether it exhibits differences across programs, and to compensate for the supportive aspects of family/friends that previous researchers have yet to explore, this paper will discuss in detail the correlation between resilience and a sense of efficacy on various dimensions to provide early childhood pre-service teachers/educational organizations with suggestions to enhance resilience.

## Research Questions

1. Are there differences in resilience and sense of efficacy among early childhood pre-service teachers with different levels of education?
2. Is there a positive correlation between resilience and a sense of efficacy?
3. What is the correlation between different dimensions of resilience and sense of efficacy in different program?
4. What factors are perceived by early childhood pre-service teachers to influence resilience to a greater extent in different program?

## Methodology

### Participants

Questionnaires were distributed to pre-service teachers studying Early Childhood Education (ECE) subjects at the Education University of Hong Kong, targeting students with at least one practicum experience. That is students in the first and

second years of the Higher Diploma Programme in Early Childhood Education -2-year Full-time (HD ECE), and students in the third, fourth, and fifth years of the Bachelor of Education Honours - Early Childhood Education-5 Year Full-time (BEd ECE). Table 1 summarizes participants' demographic characteristics. Of the respondents, 88 (92.6%) were female, 7 (7.4%) were male. The gender distribution of the respondents in this experiment was uneven, with males accounting for less, which is the current gender ratio of contemporary teacher training students. Participants ranged from 18 to 29 years (*M* age = 21.24, S*D* = 2.17). Participants' majors were HD ECE for 37 (38.9%) and BEd ECE for 58 (61.0%).

**Table 1**. Participants' demographic characteristics (*N* = 95).

| Variable | Contents | | |
|---|---|---|---|
| | | Number (%) | Mean (*SD*) |
| Gander | Male | 7 (7.4) | 1.93 (0.26) |
| | Female | 88 (92.6) | |
| Age | 18 | 15 (15.8) | 21.24 (2.17) |
| | 19 | 10 (10.5) | |
| | 20 | 5 (5.3) | |
| | 21 | 16 (16.8) | |
| | 22 | 24 (25.3) | |
| | 23 | 17 (17.9) | |
| | 24 | 4 (4.2) | |
| | 25 | 1 (1.1) | |
| | 26 | 1 (1.1) | |
| | 27 | 1 (1.1) | |
| | 29 | 1 (1.1) | |
| Major | HD ECE Year 1 | 25(26.3) | 3.34 (1.69) |
| | HD ECE Year 2 | 12(12.6) | |
| | BEd ECE Year 3 | 1(1.1) | |
| | BEd ECE Year 4 | 20(21.1) | |
| | BEd ECE Year 5 | 37(38.9) | |

*Note*. *N* = 95. Gender was coded 1 = *male*, 2 = *female*; major status was coded 1=*HD ECE Year 1*, 2=*HD ECE Year 2*, 3=*BEd ECE Year 3*, 4=*BEd ECE Year 4*, 5 =*Bed ECE Year 5*. Age were coded in years (i.e., they were entered as they were collected).

**Research Instrument**

Before completing the online questionnaire, participants read the informed consent form, which included the purpose of the study, the security of the information collected, the voluntary nature of participation, and their right to withdraw at any time. The questionnaire contained questions about the demographic characteristics of the participants, as well as the two scales discussed below and a scale to measure factors influencing resilience.

The Teacher Sense of Efficacy Scale (TSES) measures pre-service teachers' self-efficacy (Duffin et al., 2012); Ngidi & Ngidi, 2019). The scale consists of a 24-item long version and a 12-item simplified version. Based on comparing the two versions of the TSES questions, all of the questions appearing in the simplified version can be found in the long version. This time, using the full version of the scale (24 items), participants were asked to respond to the Likert-type scale (nothing scored 1, very little scored 3, some scored 5, quite a bit scored 7, and a great deal scored 9. Tschannen-Moran & Hoy (1988) categorized the TSES into three dimensions: Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in Classroom Management. The higher the TSES score, the higher the teacher's sense of efficacy. The original version of the scale was written in English, and its translation into Chinese has been tested for validity and reliability in China. The reliability of the Chinese version of the long version of the TSES was 0.888 (Li, 2021), and the reliability of the simplified version of the Chinese version of the TSES was 0.93 (Wu

& Zhan, 2017). The alpha of Cronbach's TSES scale in the current study was also high ($\alpha = 0.96$).

The Chinese version of the Resiliency Scale of University Students is designed to identify the level of resilience, which includes 31 items in six dimensions: self-acceptance, self-efficacy, problem-solving, stability, friend support, and family support. The scale is scored on a 5-point scale (from 1 not at all to 5 completely) with both positive and negative questions, with higher scores indicating higher levels of resilience. The original version of this scale is in simplified Chinese, and the internal alpha coefficient for the full scale of this scale is 0. 8594, which is highly reliable. In the current study, Cronbach's alpha for the resilience scale was .79, which is acceptable (Nunnally, 1994).

The scale measuring factors influencing resilience consisted of ten questions adapted from Yates et al.'s (2008) qualitative review of protective resilience factors for pre-service teachers. A qualitative study by Yates et al. (2008) investigated the protective factors of resilience for pre-service teachers and identified three types of factors: family and community factors (e.g., the influence of parents and siblings ), personal factors (e.g., motivation to succeed and the influence of faith/religion), and school factors (e.g., teacher-student relationships and high expectations for achievement from mentors). The authors of this paper measured which factors had a more significant impact on the resilience of pre-service teachers on a scale of 1 complete disagreement

to 7 complete agreement for all of the dimensions they mentioned. In the current study, Cronbach's alpha for the impact factor scale was .71, which is acceptable.

### Data analysis

The data management and analyses were performed using the SPSS software (IBM SPSS statistics, 2024) version 29. Firstly, the reverse questions were reverse-scored and deleted in the case of invalid questionnaires. Then, the scores of each subscale of resilience and efficacy were counted, and independent samples t-test and correlation analysis were performed using the SPSS software.

## Results

### Descriptive statistics

The mean scores of overall and specific types of resilience for pre-service teachers are presented in Table 2. Compared to the results of a previous study on Chinese university students Compared to the results of a previous study on Chinese university students, the Hong Kong ECE pre-service teachers' overall resilience in our study was lower *(M* = 3.46, *SD* = 0.33, which ranged from 1 to 5; according to Yang (2005) the mean score of Chinese university students was 3.52. Of the six sub-scales of resilience, Stability was lower *(M* = 2.91, *SD* = 0.94) than the other subscales, with friend support scoring the highest ( *M* = 4.02, *SD* = 0.51).

**Table 2.** Overall and sub-scale min, max, mean, and SD scores of the Resiliency Scale

| | Min | Max | Mean(SD) |
|---|---|---|---|
| Overall | 2.32 | 4.23 | 3.46 (0.33) |
| Self-efficacy | 2.00 | 3.80 | 3.02 (0.39) |
| Self-acceptance | 1.67 | 5.00 | 3.74 (0.57) |
| Stability | 2.00 | 4.00 | 2.91 (0.49) |
| Problem solving | 1.50 | 5.00 | 3.66 (0.73) |
| Friend support | 1.75 | 5.00 | 4.02 (0.51) |
| Family support | 1.20 | 5.00 | 3.70 (0.78) |

The mean scores of overall and specific types of efficacy for pre-service teachers were presented in Table 3. The Hong Kong early childhood education pre-service teachers' overall efficacy in our study was at the upper end of the medium range ($M$ = 5.92, $SD$ = 1.04, which ranged from 1 to 9). Of the three sub-scales of effectiveness, *Instructional Strategies* was higher ($M$ = 6.18, $SD$ = 1.13) than the other two.

**Table 3.** Overall and sub-scale min, max, mean, and SD scores of TSES

| | Min | Max | Mean(SD) |
|---|---|---|---|
| Overall | 3.00 | 8.92 | 5.92 (1.04) |
| Student Engagement | 3.00 | 9.00 | 5.85 (0.98) |
| Instructional Strategies | 3.00 | 8.75 | 6.18 (1.13) |
| Classroom Management | 3.00 | 9.00 | 5.91 (1.08) |

**Analysis of differences**

An independent samples t-test was used to assess the effect of different programs on the sense of efficacy and resilience of pre-service ECE teachers. As shown in Table 4,

the sense of efficacy of the students whose program was HD (2-year program) was significantly lower than that of the students whose program was BEd (5-year program). There was significant difference between HD ECE ($M$ = 5.46, $SD$ = 1.14) and BEd ECE ($M$ = 6.22, $SD$ = .85) overall TSES scores; $t$ (61.40) = -3.46, $p$ < .001

**Table 4.** Differences in pre-service teacher effectiveness based on different program

| | HD ECE ($N$=37) | | BEd ECE ($N$=58) | | | |
|---|---|---|---|---|---|---|
| Variable | M | SD | M | SD | T | P(two-tailed) |
| Overall TSES | 5.46 | 1.14 | 6.22 | .85 | -3.46*** | <.001 |
| Student Engagement | 5.45 | 1.09 | 6.09 | .83 | -3.00** | .002 |
| Instructional Strategies | 5.78 | 1.29 | 6.43 | .96 | -2.56** | .006 |
| Classroom Management | 5.46 | 1.16 | 6.15 | .95 | -2.89** | .003 |

*$p$ < .05, **$p$ < .01.

In the resilience scores, shown in Table 5, the HD ECE scored lower than the BEd ECE in all areas of efficacy except for family support. However, there was no significant difference between HD ECE ($M$ = 3.43, $SD$= .35) and BEd ECE ($M$ = 3.49, $SD$ = .32) overall Resilience scores; $t$ (72.06) = -.81, $p$ = .41

**Table 5.** Differences in pre-service teacher resilience based on different programs

| | HD ECE (*N*=37) | | BEd ECE (*N*=58) | | | |
|---|---|---|---|---|---|---|
| Variable | M | SD | M | SD | T | P(two-tailed) |
| Overall Resiliency Scale | 3.43 | .35 | 3.49 | .32 | -.81 | .418 |
| Self-efficacy | 2.98 | .40 | 3.04 | .38 | -.67 | .505 |
| Self-acceptance | 3.70 | .65 | 3.77 | .52 | -.52 | .599 |
| Stability | 2.87 | .44 | 2.94 | .52 | -.69 | .488 |
| Problem solving | 3.55 | .87 | 3.74 | .63 | -1.12 | .264 |
| Friend support | 3.91 | .63 | 4.09 | .40 | -1.49 | .141 |
| Family support | 3.79 | .79 | 3.64 | .77 | .90 | .370 |

**Correlation Analysis**

When the program is HD ECE, There is a positive correlation between the score of the overall Resiliency Scale ($M$ = 3.43, $SD$ = .35) and the score of overall TSES ($M$ = 5.46, $SD$ = 1.14), $r$ = .53, $p$ < .001, $N$ = 37.

Resilience was significantly correlated with a sense of efficacy in all three subscales. In the resilience subscale, Self-efficacy, Stability, and Friend support were not significantly correlated with a sense of efficacy. In contrast, two components of resilience had the highest correlation scores with a sense of efficacy: self-acceptance $r$ = .63, $p$ < .001, and problem-solving $r$ = .41, $p$ < .001.

**Table 6.** Intercorrelations Among Study Variables for HD ECE program.

| S/N | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Overall Resiliency | | | | | | | | | | |
| 2 | Self-efficacy | .47** | | | | | | | | | |
| 3 | Self-acceptance | .76*** | .25 | | | | | | | | |
| 4 | Stability | .52*** | .39* | .13 | | | | | | | |
| 5 | Problem solving | .43** | .29 | .54*** | .08 | | | | | | |
| 6 | Friend support | .75*** | .10 | .48** | .34* | .04 | | | | | |
| 7 | Family support | .52*** | .06 | .50*** | -.18 | .19 | .19 | | | | |
| 8 | Overall TSES | .53*** | .19 | .63*** | .12 | .41* | .28 | .39* | | | |
| 9 | Student Engagement | .51** | .23 | .58*** | .15 | .41* | .29 | .30 | .96*** | | |
| 10 | Instructional Strategies | .53*** | .18 | .64*** | .09 | .41* | .29 | .39* | .94*** | .86*** | |
| 11 | Classroom Management | .43* | .20 | .57*** | .05 | .51** | .17 | .28 | .95*** | .94*** | .86*** |

*Note*. $N = 37$, * $p < .05$. **$p < .01$. ***$p < .001$

As shown in Table 7, at a program of BEd ECE, there is a positive correlation between the score of overall Resiliency Scale ($M = 3.49$, $SD = .32$) and the score of overall TSES ($M = 6.22$, $SD = .85$), $r = .30$, $p < .05$, $N = 58$.

Resilience was significantly correlated with both senses of efficacy and Instructional Strategies and Classroom Management subscales. In the resilience subscale, Stability, Friend support, and Family support were not significantly correlated with a sense of efficacy. In contrast, two components of resilience had the highest correlation scores with perceptions of efficacy: problem-solving $r = .42$, $p < .001$, and self-acceptance $r = .37$, $p < .01$.

**Table 7.** Intercorrelations Among Study Variables for BEd ECE program.

| | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Overall Resiliency | | | | | | | | | | |
| 2 | Self-efficacy | .48*** | | | | | | | | | |
| 3 | Self-acceptance | .57*** | .55** | | | | | | | | |
| 4 | Stability | .62*** | .12 | .27* | | | | | | | |
| 5 | Problem solving | .63** | .42*** | .50*** | .24 | | | | | | |
| 6 | Friend support | .53*** | -.10 | .15 | .07 | .25 | | | | | |
| 7 | Family support | .71*** | .25 | .27* | .20 | .46*** | .31* | | | | |
| 8 | Overall TSES | .30* | .37** | .29* | .13 | .42*** | .17 | .08 | | | |
| 9 | Student Engagement | .21 | .28* | .17 | .09 | .29* | .19 | .01 | .92*** | | |
| 10 | Instructional Strategies | .30* | .38** | .30* | .12 | .48*** | .16 | .08 | .94*** | .81*** | |
| 11 | Classroom Management | .30* | .36** | .31* | .13 | .42*** | .13 | .13 | .94*** | .81*** | .82*** |

*Note*. $N = 58$, *$p<.05$. **$p<.01$. ***$p<.001$

## Regression analysis

As shown in Table 8, efficacy significantly predicted resilience ($p < 0.01$) with a standard coefficient of 0.532 when the program was HD ECE. Also, according to the results of this table, 28.3% of the variance related to resilience is explained by early childhood pre-service teachers' sense of efficacy variables.

**Table 8.** Regression results for the HD program

| Variable | | Unstandardized Coefficients | | Standardized Coefficients | | | | |
|---|---|---|---|---|---|---|---|---|
| | | B | SE | B | R | $R^2$ | t | P |
| Resilience | Constant | 2.535 | .247 | | .532 | .283 | 10.268*** | <.001 |
| | Efficacy | .164 | .044 | .532 | | | 3.716*** | <.001 |

As shown in Table 9, efficacy significantly predicted resilience ($p < 0.05$) with a standard coefficient of 0.302 when the program was BEd ECE. Also, according to the results of this table, 9.1% of the variance related to resilience is explained by early childhood pre-service teachers' sense of efficacy variables.

**Table 9.** Regression results for the BEd program

| Variable | | Unstandardized Coefficients | | Standardized Coefficients | | | | |
|---|---|---|---|---|---|---|---|---|
| | | B | SE | B | R | $R^2$ | t | P |
| Resilience | Constant | 2.778 | .304 | | .302 | .091 | 9.146*** | <.001 |
| | Efficacy | .115 | .048 | .302 | | | 2.372** | .021 |

**Analysis of Resilience Influencing Factors**

Support from friends/classmates, Consolation from children, Recognition from class teacher/supervisor, Relationship with the supervisor can be seen, Aiming for higher grades, and Parents' influence are the components that pre-service early childhood teachers attending the BEd program consider most important.

**Table 10.** Min, max, mean, and SD scores of BEd program on impact factors (N=58)

| | Min | Max | Mean(SD) |
|---|---|---|---|
| Support from friends/classmates | 5 | 7 | 6.03 (0.62) |
| Consolation from children | 3 | 7 | 5.81 (0.92) |
| Recognition from class teacher / supervisor | 2 | 7 | 5.57 (1.07) |
| Relationship with my supervisor | 2 | 7 | 5.33 (1.19) |
| Aiming for higher grades | 3 | 7 | 5.07 (1.18) |
| Parents' influence | 2 | 7 | 5.05 (1.39) |
| Support from my siblings | 1 | 7 | 4.81 (1.31) |
| Support from my practicum school | 1 | 7 | 4.76 (1.53) |
| High expectations from your class teacher / supervisor | 1 | 7 | 4.64 (1.26) |
| Personal religious beliefs | 1 | 7 | 3.95 (1.65) |

Looking at pre-service teachers of early childhood enrolled in the HD program, they identified the same six components as important influences but with slight differences in rankings. Aiming for higher grades and Parents' influence increased in the rankings, and the Relationship with the supervisor declined.

**Table 11.** Min, max, mean, and SD scores of HD program on impact factors (N=37)

| | Min | Max | Mean(SD) |
|---|---|---|---|
| Consolation from children | 1 | 7 | 5.65 (1.39) |
| Support from friends/classmates | 4 | 7 | 5.51 (1.04) |
| Aiming for higher grades | 1 | 7 | 5.49 (1.32) |
| Recognition from class teacher / supervisor | 1 | 7 | 5.35 (1.39) |
| Parents' influence | 2 | 7 | 5.05 (1.17) |
| Relationship with my supervisor | 1 | 7 | 4.97 (1.25) |
| Support from my siblings | 1 | 7 | 4.81 (1.77) |
| High expectations from your class teacher / supervisor | 1 | 7 | 4.68 (1.35) |
| Support from my practicum school | 1 | 7 | 4.35 (1.54) |
| Personal religious beliefs | 1 | 7 | 4.14 (1.85) |

## Discussion

### Resilience and Efficacy Current Situations

In terms of the six subdomains of resilience (Self-efficacy, Self-acceptance, Stability, Problem-solving, Friend support, and Family support), in previous studies, the results indicated that Friend support scored the highest (Yang, 2005). This is consistent with the results of the current study. However, Stability scored the lowest item in the current study, which was not found in previous studies. According to the Hong Kong study, the possible explanation is that nowadays, there are increasing socio-environmental stressors (e.g., social unrest and the new Crown Pneumonia pandemic, as well as personal stressful life events, etc.) affecting young people's mental health

(Wong, 2024). On the other hand, social media affects emotions (Al-Busaidi, 2023). Emotional instability is now more common among young people.

In terms of the three sub-domains of sense of efficacy (both Student Engagement, Instructional Strategies, and Classroom Management), in a previous study of in-service teachers, the results indicated that Student Engagement scored the lowest (Wu, 2017). This is consistent with the data from the current study of pre-service teachers of young children. However, in the previous study, in-service teachers scored higher on Classroom Management than Instructional Strategies, whereas the current survey results indicated that Instructional Strategies scored higher. This may be because Classroom Management has been consistently identified as an area in which early childhood educators need additional training upon entering the labor market (Obee, 2023). Teachers accumulate more experience in classroom management as they work, compared to pre-service teachers, who have less experience, and it is normal for them to have lower self-efficacy in this area.

**The role of educational level**

The data from the current study showed significant differences in the efficacy of early childhood pre-service teachers attending different programs in terms of performance. However, they did not show differences in terms of resilience. Those teachers who participated in undergraduate educational programs demonstrated higher levels of efficacy than pre-service teachers who attended higher diplomas. Based on the

literature review, programs with different educational diplomas have an impact on students' sense of efficacy in teaching and learning, interpreted as the programs offered to students allow students to provide adequate preparation, which in turn affects the sense of efficacy (Beltman, 2011; Ross, 1996). In the current study, the HD ECE was a two-year program, while the BEd ECE was a five-year program. Moreover, students doing the BEd ECE had a longer period to do their internship. This difference in program and practicum hours could explain the significant difference in efficacy when early childhood pre-service teachers attend different programs. The BEd ECE program provided more training in teaching strategies and educational resources, which made the pre-service teachers feel more competent and confident in dealing with their teaching tasks, thus increasing the sense of efficacy.

In the current results, although resilience scored higher in BEd than HD program, the difference was not significant. Rutter (2012) mentioned that resilience is the process by which an individual is well-adapted to a stressful event. This definition contains two very critical conditions: 1 the individual is in a dangerous or negative scenario; 2 despite frustration and stress, and the individual achieves a good adaptation through his/her adaptation and coping skills. From the above information, resilience needs to be triggered in the face of stressful situations. This may explain the lack of significant differences in resilience across programs. This is because resilience requires a person to be in an adversarial situation, and students may face similar adversities at the university level. However, according to the literature review regarding the effect of

resilience and level of education, scholars tend to favor that more educated people have higher resilience than less educated people (Ang et al., 2018; Alizadeh & Sharifi, 2021). However, the authors argue that this difference needs to be taken in the long term to be detected. In the long term, education is associated with higher levels of resilience (Frankenberg et al., 2013). This may be because education programs provide training in specialized knowledge and skills that enable teachers to better cope with the stresses and challenges of the job. It was only after some time on the job that the data saw some differences in resilience depending on the level of education. In addition, the education program emphasized the importance of mental health and self-care, thus contributing to the long-term development of resilience in early childhood pre-service teachers.

**Correlation and sub-domain relationship**

Based on the data collected in this study, we know that the resilience of early childhood pre-service teachers is positively related to efficacy. This aligns with previous studies (Xu, 2011; Liao, 2020; Yada, 2021). It also means that the higher the resilience of early childhood pre-service teachers, the higher the sense of efficacy, or the higher the sense of efficacy, the higher the resilience. Cassidy (2015) mentioned that self-efficacy is a critical component of resilience and that high self-efficacy affects teacher resilience. That self-efficacy can be strengthened as teachers encounter and overcome challenges in teaching. Individuals with higher resilience are more confident in their abilities and are better able to maintain a positive mindset (Yang,

2005).

In the same way as resilience, a sense of efficacy reflects beliefs. In more detail, a sense of efficacy is associated with increased motivation, perseverance, and resistance to negative thoughts (Cassidy, 2015). It follows that sense of efficacy and resilience have the same parts that could explain their correlation.

Somewhat surprisingly, stability and friend support did not correlate significantly with a sense of efficacy on the six subscales of resilience for early childhood pre-service teachers, regardless of whether the data was from the HD or BEd programs. Because the overall resilience scale was positively correlated with the sense of efficacy scale, it is concerning that two of the components showed no relationship. The non-significant correlation between friend support and a sense of efficacy can be explained by the fact that receiving teacher training in a teacher education program may be considered a reasonably separate process for pre-service teachers (Kaldi, 2009). In the current study, family support and sense of efficacy were not correlated among early childhood pre-service teachers enrolled in the BEd program. Kaldi (2009) mentioned that pre-service teachers did not rate their families as a vital source of intellectual and emotional support during their teaching practice. In addition, regarding the result that emotional stability and sense of efficacy were not correlated, we found a similarity between previous and current studies. Poulou (2007) found that physical/emotional states were not correlated with a sense of efficacy in Instructional Strategies and Classroom Management. Emotional states also received the lowest

scores on a survey titled "*Recovery from Negative Emotions during Teaching*" (Poulou, 2007). This can be explained by the fact that direct sources influence self-efficacy. For example, *active mastery experience* indicates competence (Poulou, 2007). In other words, when teachers with high levels of self-efficacy face academic pressures, they work on solving problems rather than relieving emotional stress (Mulholland & Wallace, 2001). This idea was also confirmed in our current data analysis. The HD program and BEd program data showed high correlation scores between problem-solving and a sense of efficacy. Another high correlation for a sense of efficacy was self-acceptance. This is similar to previous research. Research has pointed out that pre-service teachers' self-efficacy coexists closely with well-being, especially self-acceptance (Lipińska-Grobelny & Narska, 2021).

**Prediction of Resilience by Sense of Efficacy**

The result of this data is that a sense of efficacy significantly predicts resilience. Pre-service teachers enrolled in the HD ECE program had a 28% prediction of resilience from their sense of efficacy, while undergraduate students had a 9% prediction. Research points to the fact that when individuals are confident in their abilities, they are more adaptable and flexible in dealing with difficult situations, as well as showing better perseverance, all of which enhances resilience (Yada, 2021; Hamill, 2003). Differences in data may mean that for the relationship between the sense of efficacy and resilience for pre-service teachers with HD ECE, there is a higher accuracy in the model and less error in the prediction. Resilience is related to several factors, such as

an individual's psychological, physiological, and social factors, and different populations may be affected by different factors. In the case of undergraduate students, they may receive more training and resources, and their resilience is affected by other factors, and the prediction of a sense of efficacy alone will be low.

**Resilience and efficacy can be enhanced**

Based on the definition of resilience, we know that resilience is dynamic and a constructed outcome (Beltman, 2011). Teachers in previous research have taken different approaches to the issue of stress and burnout, thereby showing different levels of resilience (Howard & Johnson, 2004). This also implies that resilience can be altered. People can act proactively and employ strategies to overcome adversity faced in their environment (Beltman, 2011). Another study demonstrated that resilience-enhancing training for pre-service teachers significantly increased self-efficacy, self-acceptance, stability, and problem-solving dimensions after the training (Xie, 2012). Another study of resilience interventions included socially empowering skills, which significantly impacted resilience enhancement (Ang, 2022). This all shows that resilience can be improved.

The protective triad of pre-service teacher resilience mentioned by Yates et al. (2008) was found to have a strong influence on resilience in both HD and BEd programs in this investigation, including family and community factors (e.g., Support from friends/classmates, Parents' influence), personal factors (e.g., Aiming for a higher

grade, Consolation from children) and school factors (e.g., Recognition from class teacher/supervisor, Relationship with supervisor). This also provides suggestions for pre-service programs to consider the above aspects to enhance the resilience of pre-service teachers, e.g., focusing on building good relationships between students and supervisors.

Lipińska-Grobelny and Narska (2021) mentioned that efficacy is closely related to teachers' mental health. Therefore, it is essential to focus on developing these competencies when training future teaching staff. Teachers' sense of efficacy is developed during pre-service teacher education or initial teaching (Göker, 2020). Especially for pre-service teachers, the teaching experience during the internship period can significantly impact teacher efficacy (Yada, 2021). When we want to increase pre-service teachers' sense of efficacy, we may be able to provide more support to pre-service teachers during the internship period. For example, cognitive coaching can lead to reflection and improved teacher pedagogy (Göker, 2020). In previous research, cognitive coaching has increased pre-service teachers' sense of efficacy. After training using the TSES test, pre-service teacher scores showed significant increases in all three areas of Student Engagement, Instructional Strategies, and Classroom Management (Göker, 2020). This also provides suggestions for pre-service programs; schools can possibly consider how to improve efficacy when preparing pre-service teachers. According to Beltman (2011), newer teachers compare themselves to teachers they observe or receive affirming comments from others. The

preparation of pre-service teachers could also try to get mentors to affirm/appreciate pre-service teachers more, as well as provide more programs in the curriculum that can be observed in the field.

**Implications for practice**

Data suggests that students enrolled in the HD program scored lower than their undergraduate counterparts in efficacy and resilience. Some suggestions are offered here to help students overcome the challenges and provide possibilities for more supportive curriculum design for educational institutions. Firstly, students should be encouraged to participate. Specifically, teachers can design appropriate course activities and tasks to encourage active student participation and interaction. For example, group discussions, collaborative projects, and role-plays can increase students' engagement and self-confidence and enhance their sense of efficacy and resilience. Second, provide immediate feedback and increased encouragement. Teachers should give students timely feedback so that they are aware of their learning progress and areas for improvement. In addition, they help students develop a positive mindset and self-confidence through encouragement and praise. Teachers can provide inspiring examples, showcase success stories and experiences, or let students share their learning outcomes, which helps pre-service teachers accumulate success stories from which they can receive positive feedback and recognition. Finally, schools may consider establishing a support network. This includes teachers, peers, and learning counselors to provide students with support and guidance. This can be achieved

through regular individual meetings, group discussions, and online forums.

**Limitations**

The study used a cross-sectional research design, where data were collected at the same point in time. This design does not provide causality but only describes student differences and correlations. Also, this study could not provide long-term data collection and observation. This limited the overall understanding of students' resilience and efficacy changes and development. To overcome these limitations, it is recommended that future studies be conducted over a more extended period with a longitudinal research design in order to track the changes and development of students' sense of resilience and efficacy. Experimental designs and control groups could help establish causality and better assess the effects of different interventions on students' resilience and sense of efficacy.

Another limitation of this study is the limited demographic composition of the sample, 92.6% female. Even though, females are generally overrepresented in the pre-service teacher population. However, based on previous research, Yang (2005) found differences between male and female college students regarding resilience. Because the sample was overwhelmingly female, the findings may not fully represent the population as a whole. This may limit the understanding and generalization of male resilience. Future studies should include more male participants to draw more comprehensive and accurate conclusions. Furthermore, the sample size of this study was small and limited to early childhood pre-service teachers in a specific area, so the

generalizability of the results may be limited. Future studies could expand the sample size and conduct comparative studies in different districts and educational programs to further validate and deepen the findings.

## Conclusion

Investigating the resilience and efficacy of early childhood pre-service teachers is essential for improving teacher retention and career development. This paper investigates and explains the current status of resilience efficacy in the early childhood pre-service teacher population. It was found that the sense of efficacy showed significant differences in different programs. The positive correlation between resilience and sense of efficacy was verified, and it was clarified that the correlation with sense of efficacy was not significant at the level of social support (support from family/friends). Meanwhile, this paper collects the perspectives of early childhood pre-service teachers and obtains the critical factors that the early childhood pre-service teacher community believes affect resilience. Finally, the results of this study will provide strategies and recommendations for educational institutions and pre-service teachers on how to improve resilience and a sense of efficacy, thus contributing to the development and growth of pre-service teachers.

Word count: 7738 words

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# Appendix

## English version of the informed consent form

**THE EDUCATION UNIVERSITY OF HONG KONG**

Department of Early Childhood Education

CONSENT TO PARTICIPATE IN RESEARCH

**A Study on Resilience and Efficacy of Pre-service Teachers at the kindergarten level**

I _____ hereby consent to participate in the captioned research supervised by Dr. Zhou Yanling and conducted by , who are a student of Department of Early Childhood Education in 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 _____

INFORMATION SHEET

**A Study on Resilience and Efficacy of Pre-service Teachers at the kindergarten level**

You are invited to participate in a project supervised by Dr. Zhou Yanling and conducted by , who are a student of Department of Early Childhood Education in The Education University of Hong Kong.

**The introduction of the research**

The proposed study aims to examine the resilience and efficacy of pre-service teachers.

**The methodology of the research**

About 80 pre-service teachers will be asked to fill out an online questionnaire. The questionnaire will assess the resilience and efficacy of pre-service teachers. Pre-service teachers will receive the questionnaire in EDUHK, and they are expected to take about 15 minutes to complete the questionnaire.

**Research risk**

This study will not bring any risks or discomfort to the participants. No data that can be used to identify participants will be collected. The data collected in this study will be stored on password protected computers. In addition, the data obtained from the study will only be reviewed by relevant researchers and will only be used for academic purposes. Without your written consent, the relevant data will not be used for any other purpose. Your participation is purely voluntary, and all participants have the full right to decide to withdraw from this study at any time, without causing any adverse consequences. All data related to you will be kept confidential.

**Describe how results will be potentially disseminated**

The results of this study may be published in academic seminars and academic journals. Any data that can be used to identify participants will not appear in any form of written or oral reports.

If you would like to obtain more information about this study, please contact at telephone number or their supervisor Dr. Zhou at telephone number

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.

Principal Investigator

**Chinese version of the informed consent form**

**香港教育大學**
**幼兒教育學系**

**參與研究同意書 – 參與職前教師**
「職前教師的復原力和效能感」研究

本人_____同意參加由周彥玲博士負責監督，執行的研究項目。他們分別是香港教育大學幼兒教育學系的教員和學生。

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

研究者已將所附資料的有關步驟向本人作了充分的解釋。本人理解可能會出現的風險。本人是自願參與這項研究。

本人理解我有權在研究過程中提出問題，並在任何時候決定退出研究，更不會因此而對研究工作產生的影響負有任何責任。

參加者姓名: _____

參加者簽名: _____

日期: _____

**有關資料**

「職前教師的復原力和效能感」研究

誠邀閣下參加由周彥玲博士負責監督，負責執行的研究計劃。他們分別是香港教育大學幼兒教育學系的教員和學生。

**研究計劃簡介**

本研究旨在調查職前教師的復原力和效能感。

**研究方法**

是次研究對象為約 80 名幼兒職前教師。研究人員會透過網路向職前教師派發一份有關職前教師的復原力和效能感問卷。職前教師需花約 15 分鐘填寫有關問卷。是次研究並不為閣下提供個人利益，但所搜集數據將對研究復原力和效能感的問題提供寶貴的資料。

**研究風險**

是次研究將不會為參與者帶來風險及不適。將不收集任何能用作辨別參與者身份的資料。是次研究收集的資料，將會被儲存於受密碼保護的電腦。此外，研究所得的資料只會供研究相關人士檢閱，並只作學術用途。若未經 閣下書面同意，有關資料將不會作任何其他用途。 閣下的參與純屬自願性質，所有參加者皆享有充分的權利在任何時候決定退出是次研究，更不會因此引致任何不良後果。凡有關 閣下的資料將會保密。

**研究結果發佈**

是次研究所得的結果，將可能在學術研討會中發表及在學術期刊中出版。任何能用作辨別參與者身份的資料，將不會出現在任何形式的書面及口頭報告中。

如閣下想獲得更多有關這項研究的資料，請致電小姐或致電 與周彥玲博士聯絡。

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

謝謝閣下有興趣參與這項研究。

學生研究員

## Questionnaire

「職前教師的復原力和效能感」研究

此問卷共分三部份，請細閱每部份的指示，然後回答有關問題。

***注意***

- 以下的問題只是有關你的個人取向，答案並沒有對錯之分，因此你只需要選出最能代表你實際情況的答案便可。
- 是次研究所得的資料將絕對保密，將不會收集任何能用作辨別參與者身份的資料。此外，所有資料將會被儲存於受密碼保護的電腦。此外，研究所得的資料只會供研究相關人士檢閱，並只作學術用途。若未經　閣下書面同意，有關資料將不會作任何其他用途。

以下是个人的一些基本资料,请如实填写

1. 您是否是教育大學修讀幼兒教育的學生?
   □是　　□否
2. 您是否有至少一次在幼稚園實習的經歷?
   □是　　□否
3. 閣下性別：□男　　□女
4. 閣下年齡：_____
5. 所修專業 課程編號/名稱
   □ HD ECE Year 1
   □ HD ECE Year 2
   □ BEd ECE Year 3
   □ BEd ECE Year 4
   □ BEd ECE Year 5

<第一部份>

以下語句描述了個人會有的一些狀況，請您將它與您的真實情況進行比較，並圈出你認為合適的數位題號。 其中 1=完全不符合，2=基本不符合，3=不能確定，4=基本符合，5=完全符合.

由於問卷涉及教學效能感，需要您至少有一次實習經歷，十分感謝。

| 題號 | 題目 | 完全不符合 | 基本不符合 | 不能確定 | 基本符合 | 完全符合 |
|---|---|---|---|---|---|---|
| 1 | 總的來說，我對自己是十分滿意的。 | 1 | 2 | 3 | 4 | 5 |
| 2 | 生活中的一些瑣事很容易影響我的情緒。 | 1 | 2 | 3 | 4 | 5 |
| 3 | 我和家人經常保持聯系。 | 1 | 2 | 3 | 4 | 5 |
| 4 | 我能够找到一些朋友與我分享快樂和憂傷。 | 1 | 2 | 3 | 4 | 5 |
| 5 | 我對自己的能力充滿信心。 | 1 | 2 | 3 | 4 | 5 |
| 6 | 我常能從家人那裡獲得情感上的支持。 | 1 | 2 | 3 | 4 | 5 |

| 題號 | 題目 | 完全不符合 | 基本不符合 | 不能確定 | 基本符合 | 完全符合 |
|---|---|---|---|---|---|---|
| 7 | 遇到困難時，我常常會製定計畫，並按計畫行事。 | 1 | 2 | 3 | 4 | 5 |
| 8 | 當我苦悶煩惱的時候，我能從家人那裡獲得情感的慰藉。 | 1 | 2 | 3 | 4 | 5 |
| 9 | 我覺得自己還是很不錯的。 | 1 | 2 | 3 | 4 | 5 |
| 10 | 我常常會無緣無故的情緒低落。 | 1 | 2 | 3 | 4 | 5 |
| 11 | 當我需要幫助的時候，我在很大程度上能够依靠朋友。 | 1 | 2 | 3 | 4 | 5 |
| 12 | 我總是給人一種十分自信的感覺。 | 1 | 2 | 3 | 4 | 5 |
| 13 | 我容易生氣。 | 1 | 2 | 3 | 4 | 5 |
| 14 | 當我有困難時，我常常會向朋友尋求幫助 | 1 | 2 | 3 | 4 | 5 |
| 15 | 想想我的優點和缺點，我自我感覺比較滿意。 | 1 | 2 | 3 | 4 | 5 |
| 16 | 我總是多愁善感。 | 1 | 2 | 3 | 4 | 5 |
| 17 | 父母常常通過各種方式來關心我在學校的生活。 | 1 | 2 | 3 | 4 | 5 |
| 18 | 我有至少一位無話不談的朋友。 | 1 | 2 | 3 | 4 | 5 |
| 19 | 只要我努力，我可以將事情做得和別人一樣好或甚至更好。 | 1 | 2 | 3 | 4 | 5 |
| 20 | 不愉快的事經常會讓我煩惱很長時間。 | 1 | 2 | 3 | 4 | 5 |
| 21 | 現時我的生活中有些人（朋友或老師）真正關心我。 | 1 | 2 | 3 | 4 | 5 |
| 22 | 許多時候，我感到自己不像身邊許多人那樣有能力。 | 1 | 2 | 3 | 4 | 5 |
| 23 | 我的情緒比較穩定。 | 1 | 2 | 3 | 4 | 5 |
| 24 | 在我困惑時，朋友（或老師）常給我提供一些很好的建議。 | 1 | 2 | 3 | 4 | 5 |
| 25 | 我常按照事情的輕重緩急來解決生活中的問題。 | 1 | 2 | 3 | 4 | 5 |
| 26 | 當我困難的時候，我常能從家人那裡得到很多支持。 | 1 | 2 | 3 | 4 | 5 |
| 27 | 我不喜歡與朋友一起談論我的困難。 | 1 | 2 | 3 | 4 | 5 |
| 28 | 我善於合理的分配時間來處理問題。 | 1 | 2 | 3 | 4 | 5 |
| 29 | 我與我以前的一些朋友還保持著親密的聯系。 | 1 | 2 | 3 | 4 | 5 |
| 30 | 我的情緒時起時落。 | 1 | 2 | 3 | 4 | 5 |
| 31 | 我常常通過採取積極的行動和對策來解決問題、化解矛盾。 | 1 | 2 | 3 | 4 | 5 |

<第二部份>

對你來說，你自己評估以下方面對你的復原力有多大影響？復原力可以簡單理解為：當面對重大壓力/逆境時，你如何挺過來的。 請從 1 至 7 的量表中圈出最能代表你的數字。

| | | 完全沒有 | 沒有 | 不太有 | 中立 | 有點影響 | 有影響 | 非常有影響 |
|---|---|---|---|---|---|---|---|---|
| 1 | 父母的影響 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | 兄弟姐妹對我的支持 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | 實習學校的支持 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4 | 與視導老師關係的融洽 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5 | 朋友/同學的支持 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6 | 幼兒帶給你的安慰 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | 想要追求更高的成績 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 想要得到班主任老師/視導老師的認可 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | 個人宗教信仰 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10 | 班主任老師/視導老師對你有很高的要求 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

<第三部份>

這部分旨在帮助我们更好地了解職前教师在学校活动中遇到的各种困难。请指出您对以下各项陈述的看法。您認為您能做多少？請選出符合您的答案。您的答案是保密的。

| | | 您認為您能做多少？ | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 題号 | 題目 | 完全沒有 | | 很少 | | 有些影響 | | 相當大程度上 | | 非常大程度上 |
| 1 | 我能幫助不服管教的學生 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2 | 我能幫助學生進行批判性思考 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3 | 我能掌控課堂中學生干擾教學的行為 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4 | 我能幫助學習興趣低落的學生提高學習動機 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 5 | 我能讓學生清楚知道在課堂上應有的規範行為 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 6 | 我能幫助學生樹立信心，完成學業 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

| 題号 | 題目 | 完全沒有 | | 很少 | | 有些影響 | | 相當大程度上 | | 非常大程度上 |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 我能很好回答學生提出的難題 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 8 | 我能通過合理的流程使課堂教學順利進行 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9 | 我能幫助學生認識到學習的重要性 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 我能掌握學生對我教學內容的理解程度 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 11 | 我能在課堂中對學生提出有意義的問題 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 12 | 我能培養學生的創造力 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 13 | 我能讓學生遵守課堂規則 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 14 | 我能幫助學習成績差的學生，改善其對課程的理解 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 15 | 我能使吵鬧或干擾上課的學生安靜下來 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 16 | 我能針對不同特點的班級，使用不同的班級管理方式 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 17 | 我能根據學生的程度調整自己的教學 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 18 | 我能使用多元的教學評估策略 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 19 | 我能做到不讓少數問題學生影響我的課堂授課 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 20 | 當學生沒聽懂時，我能換種方式講解或舉例子 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 21 | 我有辦法應對挑釁的學生 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 22 | 我能幫助家長更好地教育他們的孩子 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 23 | 我能採用多元的教學策略 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 24 | 我能為學習程度優秀的學生提供有挑戰的學習內容 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |