How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions

towards supporting senior secondary students with ADHD

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# Glossary

- ADHD Attention-Deficit/Hyperactivity Disorder
- APA American Psychiatric Association
- ASD Autism Spectrum Disorder
- BEd Bachelor of Education
- CUHK Chinese University of Hong Kong
- EBD Emotional and Behavioural Difficulties
- EDB Education Bureau
- EdUHK Education University of Hong Kong
- EP(s) educational psychologists
- HK Hong Kong
- HKBU Hong Kong Baptist University
- HKDSE Hong Kong Diploma of Secondary Education
- HKEAA Hong Kong Examinations and Assessment Authority
- HKMU Hong Kong Metropolitan University
- HKU University of Hong Kong
- ID Intellectual Disability
- NSS New Senior Secondary
- RQ(s) research question(s)
- SBA School-Based Assessment
- SEC Special Education and Counselling
- SEN Special Educational Needs
- SpLD Specific Learning Difficulties



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- TA(s) teaching assistants
- TSES Teachers' Sense of Efficacy Scale



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### **Chapter One: Introduction**

#### **Background & Statement of the Problem**

Inclusive education serves a pivotal role globally to combat discrimination for safeguarding every pupil's fundamental right to education (Forlin, 2010). Under the Whole School Approach, ordinary schools in HK should cater to learners' diversities, specifically targeted at SEN students (EDB, 2014).

SEN is classified into nine types, including "Hearing Impairment, Visual Impairment, Physical Disability, Intellectual Disability, ADHD, ASD, Speech and Language Impairment, SpLD, and Mental Illness" (EDB, 2018, p.3). With greater awareness, the number of SEN students expands constantly. During 2013-2018, students with SEN in local mainstream schools had surged 34% (Legislative Council Secretariat, 2019). ADHD is one of the most common types, comprising 26% of the confirmed case in secondary schools (Legislative Council Secretariat, 2019).

It is not news to hear that senior-form ADHD students encounter profound difficulties in academic learning. Like others, they need to prepare for a demanding university entrance examination, the HKDSE. Responding to such problems, teacher training on ADHD has been promoted across the city. Hence, it is valuable to explore how local training impacts pre-service teachers' knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD. Extensive research on ADHD is found in the educational field. Yet, most of them ignored issues concerning teachers' knowledge, self-efficacy, and perceptions. Relevant research tended to investigate the three aspects separately without linking them to the training involved.



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## **Chapter Two: Literature Review**

The following will lay a foundation of the topic by scrutinising relevant scholarly works. Knowledge gaps located would then bring about directions for the current research.

## ADHD

It is crucial to deepen the understanding of ADHD first.

ADHD is "a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development" (APA, 2000, p.85). Three variations of ADHD exist (APA, 2013). Regarding predominantly inattentive presentation, students are always side-tracked by external events and thus experience trouble completing tasks requiring prolonged mental effort. They also appear to be forgetful and careless. As for predominately hyperactive-impulsive presentation, pupils have excessive energy which hinders them from sitting still and keeping quiet. Additionally, they cannot wait for their turns, intruding into others' activities persistently. The final form, combined presentation, incorporates all characteristics listed above.

To survive at the senior secondary level, ADHD students are inclined to take medications like methylphenidate and atomoxetine (HKU, 2018). Since drugs contain numerous side effects and limitations, accommodations from teachers are possibly the most beneficial.



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### **Pre-Service Training**

To provide appropriate assistance to ADHD students, the preliminary step for teachers is to take training programmes.

Training on SEN is now integrated into local teacher education programmes (Stella et al., 2007). In the EdUHK, students holding a BEd degree must pass one mandatory course on SEN for fulfilling the graduation requirement, i.e. SED4072 School Guidance and Managing Diversity. During the thirty-nine contact hours, students attend mass lectures and small-group tutorials to master different types of SEN with reference to theories, including ADHD. Furthermore, they conduct case analyses to formulate intervention strategies to help pupils with ADHD.

The above reveals that training for local pre-service teachers is quite limited though it is compulsory. Student-teachers in HK are generally dissatisfied with the training, criticising courses offer rudimentary coverage on SEN with scanty practical advice for managing ADHD pupils (Liang & Gao, 2016). This echoes Allday et al.'s (2013) study that university courses are primarily theoretical, which creates a disconnection between pre-service training and actual practice. Consequently, student-teachers' knowledge in supporting ADHD students can hardly be enriched considerably. Ineffective training weakens their confidence, underlining their negative attitudes in assisting those pupils (Liang & Gao, 2016). Therefore, it is meaningful to further investigate the relationships between pre-service training and teachers' knowledge, self-efficacy as well as perceptions towards teaching ADHD pupils.



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### **Knowledge of ADHD**

The first element that the current study examines is teachers' knowledge of ADHD.

Bekle (2004) evaluated the ADHD knowledge of forty undergraduates from Perth who studied primary education. In the survey, participants answered twenty true/false questions about ADHD that covered wide areas, e.g. "biological and non-volitional factors" and "causation". Although 95% of participants received training on ADHD, knowledge gaps still existed. Dietary treatment was their common misconception. Participants also displayed an acute misunderstanding of ADHD myths. This reveals that training is not necessarily efficacious in facilitating teachers' understanding of ADHD.

Liang and Gao (2016) conducted similar research in HK. They recruited sixty-four pre-service teachers from a local institute. 90.63% of participants attended ADHD training. The questionnaire was adopted from Bekle (2004) with slight adaptations. It was concluded that participants were particularly weak in causation and family influences. Unlike the results from Bekle (2004), participants showed better performance on ADHD myths.

The two studies repeatedly pinpointed that a mismatch was observed between training received and participants' actual knowledge. New research to further investigate the relationship between teachers' knowledge and the training involved is needed.



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## **Teachers' Self-Efficacy**

Another element this paper discusses is teachers' self-efficacy towards offering accommodations to ADHD students.

Self-efficacy refers to "people's judgments of their capabilities to organise and execute courses of action required to attain designated types of performances" (Bandura, 1986, p.391). Teachers expect themselves to demonstrate abilities in helping pupils' learning to produce desired outcomes (Ross & Bruce, 2007). Having high self-efficacy, teachers can not only perform their skills smoothly but also modify the surrounding environment meaningfully (Legato, 2011). With low self-efficacy, teachers are likely to experience emotional exhaustion and cannot apply effective strategies to manage classes with SEN students (Dicke et al., 2014; Latouche & Gascoigne, 2017). This manifests that teachers' self-efficacy influences students' learning outcomes to a large extent.

Latouche and Gascoigne (2017) scrutinised teachers' self-efficacy in teaching ADHD students. Participants were 274 in-service teachers serving in primary schools from Australia. They were divided into two groups, i.e. the intervention group and the waitlist control group. A workshop about ADHD was provided for the former group. In the survey, participants finished the long form of the TSES. Twenty-four items were set up. Answers were indicated using a 9-point Likert scale. Comparing the pre-test and the post-test, it was discovered that the intervention fairly enhanced teachers' self-efficacy.

Since there is no similar research focusing on student-teachers, it is necessary to find out whether local pre-service teachers' self-efficacy can increase with training.



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# **Teachers' Perceptions**

The last element this study investigates is teachers' perceptions towards supporting ADHD pupils.

Perceptions can be interpreted as teachers' views on their responsibilities in giving extra assistance to students with ADHD in inclusive classrooms. Such perceptions probably dictate the treatments that ADHD students obtain and affect teachers' expectations of them. Reflected in numerous studies, foreign teachers normally held negative perceptions towards helping ADHD pupils. According to Batzle et al. (2010), teachers rated non-labelled pupils much more favourable than those identified with ADHD in terms of their intelligence, behaviour, and overall personalities. Another paper highlighted that pre-service teachers considered ADHD students the most troublesome (Walczak & Estrada, 2017). They preferred to support other SEN students. Besides, among the subtypes of ADHD, teachers typically believed those exhibiting external misbehaviour are more burdensome than the ones displaying inattentiveness (Ballantine, 2015).

To complete the NSS curriculum, teachers not only have to seize every moment in regular lessons but also spend additional time holding supplementary lessons with pupils after school. They may face radical challenges taking special care of ADHD students. Accordingly, it is important to discover more about local teachers' perceptions towards assisting ADHD students. Moreover, given that training on ADHD might pose diverse impacts on pre-service teachers' knowledge, selfefficacy, and perceptions, it is worthwhile to study how the three aspects change after training and how they are correlated.



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# **Chapter Three: Research Purposes & RQs**

After discussing the present situation about teaching ADHD students and factors related to teacher training on ADHD, research purposes and RQs will be explained below.

### **Research Purposes**

Teachers are normally deemed the determinant of ADHD pupils' success (Gordon, 1991; Topkin et al., 2015). The prerequisite of taking on this prominent role is to attend training sessions (Bradshaw & Kamal, 2013; Sherman et al., 2008; Vereb & DiPerna, 2004). While studies proved that teachers' knowledge, self-efficacy, and perceptions directly affect them to assist ADHD students (Clarke, 2014; Lee et al., 2019; Soroa et al., 2016), rarely of these aforementioned items were associated with the training involved. This paper, therefore, inspects pre-service teachers' knowledge, self-efficacy, and perceptions towards supporting ADHD students in relation to the training received. Because of the local exam-oriented culture, the focus is on giving special attention to senior-form pupils with ADHD, who study the HKDSE syllabus. To gain a comprehensive understanding, results gathered before and after training will be contrasted. Consequently, recommendations can be made for improving the current practice.

### RQs

Extending the foundation developed in the literature review, the main RQ was formulated as "How local training impacts HK pre-service teachers' knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD?". It was further split into three sub-RQs.



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RQ1: What are local pre-service teachers' knowledge, self-efficacy, and perceptions towards supporting senior-form students with ADHD before training?

RQ2: What are local pre-service teachers' knowledge, self-efficacy, and perceptions towards supporting senior-form students with ADHD after training?

RQ3: What are the relationships between the training received and local teachers' knowledge, self-

efficacy as well as perceptions towards supporting ADHD students at the senior secondary level?

RQ1 recognises participants' knowledge, self-efficacy, and perceptions at the initial stage of this study so that comparisons of their conditions could be made later. Regarding RQ2, it utilises the training as the intervention to appraise the changes of participants in the three aspects. Lastly, RQ3 evaluates the effectiveness of the training for observing how participants' knowledge, self-efficacy, and perceptions are correlated. By combing the sub-RQs, the main RQ could be addressed to achieve the above purposes.



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### **Chapter Four: Methodology**

### **Participants**

This inquiry attempted to recruit sixty pre-service teachers. Participants were full-time undergraduates striving for at least a BEd degree at the EdUHK. The majority of them were Year 3 pupils. Some of them got teaching experiences. During the process, participants took SED4072 in 2021/22 Semester 1.

### **Instruments & Data Analysis**

This study used mixed methods research, adopting both quantitative and qualitative approaches for tackling the RQs.

### Questionnaire

Three sections were included in the questionnaire (Appendix 1).

Section 1 collected the demographic data from pre-service teachers. Respondents were requested to indicate their personal information. For instance, year of study, experiences in teaching senior-form ADHD students, etc.

Concerning Section 2, respondents' knowledge of ADHD was assessed. The questionnaire was replicated from Liang and Gao (2016). Originally, it was adapted from Jerome et al. (1994; 1999) by Bekle (2004). Liang and Gao (2016) cancelled one item to fit the context. Question numbers were rearranged following the corresponding themes. In this study, participants responded to



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 15 towards supporting senior secondary students with ADHD nineteen true/false questions to test their ADHD knowledge. Questions covered five areas, involving "biological and non-volitional factors", "family influences", "causation", "medical and educational interventions", and "ADHD myths". To analyse the data, samples were separated into two groups, i.e. before and after training. The number of right answers in each item was revealed in percentage. The non-parametric Mann-Whitney U test was then carried out. Results evinced if participants' knowledge differ significantly due to the training.

Section 3 investigated respondents' self-efficacy towards supporting ADHD students. The questionnaire was retrieved from Tschannen-Moran and Hoy's (2001) long version of TSES, a highly valid tool with an alpha coefficient rating of .94 for gauging teachers' self-efficacy (Roberts & Henson, 2001). There were twenty-four items embodying three subtopics on self-efficacy, namely "student engagement", "instructional strategies", and "classroom management". Participants showed their answers on a 9-point Likert scale. The Mann-Whitney U test was applied for data analysis again. As highlighted by Jamieson (2004), a rank order exists in the response categories of the Likert scale. Intervals between positions on the scale cannot be assumed equal. Hence, it is a kind of ordinal data measure. The application of the Mann-Whitney U test evaluated whether the differences in participants' self-efficacy are statistically significant in relation to the training.

Since this study is not to examine the elements separately, the Spearman's Rank-Order Correlation was used to ascertain the association between participants' knowledge and self-efficacy.



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### Interview

The interview not only served as an extension of the questionnaire but also ascertained participants' perceptions towards supporting ADHD students at the senior secondary level (Appendix 2). In the 20-minute interview, participants shared more in-depth about SED4072 and their teaching experiences. Moving onto the focus, interviewees elaborated on their perceptions towards providing special assistance to ADHD students when they are supposed to complete the HKDSE curriculum. Results gained were analysed qualitatively to discern how participants' perceptions are influenced by the training. Further, thematic analysis containing six steps was applied, i.e. "becoming familiar with the data", "generating initial codes", "searching for themes", "reviewing themes", "defining themes", and "writing-up" (Braun & Clarke, 2006). In that way, qualitative and quantitative data support one another, connecting participants' knowledge, self-efficacy, and perceptions.

### **Ethical Procedures**

After obtaining ethical approval from the Department of SEC of the EdUHK, the process of data collection began. To secure further permission, a consent letter was sent out for the course coordinator of SED4072 to sign. Volunteered undergraduates were also required to declare their acceptance to partake in the research before assisting with the quantitative data collection. However, they had the right to leave the inquiry at any time without fear of consequence. Respondents who indicated their willingness in the questionnaire to join the interview session might be invited. Recordings were taken under the interviewees' approval. Interviewees could avoid answering any question whenever they felt uncomfortable. Once the interview had been done, transcription was made for analysis.



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# **Chapter Five: Results**

The findings stated in this chapter are based on the data collected from the questionnaire and the

interview. They aim at responding to the three sub-RQs individually to answer the main RQ.

# **Demographic Descriptions**

Variable	Pre-Test	Post-Test
	<i>n</i> =60 (%)	<i>n=</i> 60 (%)
Year of study		
Year 3	51 (85%)	52 (86.7%)
Year 4	9 (15%)	8 (13.3%)
Years of teaching experience		
N/A	3 (5%)	4 (6.7%)
1-3 months	11 (18.3%)	10 (16.7%)
4-6 months	18 (30%)	11 (18.3%)
7-9 months	9 (15%)	15 (25%)
10-12 months	3 (5%)	2 (3.3%)
More than 1 year	16 (26.7%)	18 (30%)
Experience in teaching senior forms		
Yes	35 (58.3%)	37 (61.7%)
No	25 (41.7%)	23 (38.3%)

Table 1. Demographic Data (Appendix 3)



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Estimate the number of SEN		
students you have taught		
0	8 (13.3%)	8 (13.3%)
1-5	40 (66.7%)	40 (66.7%)
6-10	9 (15%)	9 (15%)
More than 10	3 (5%)	3 (5%)
Estimate the number of ADHD		
students you have taught		
0	15 (25%)	15 (25%)
1	16 (26.7%)	12 (20%)
2	19 (31.7%)	21 (35%)
3	4 (6.7%)	5 (8.3%)
4	2 (3.3%)	2 (3.3%)
5	0 (0%)	0 (0%)
More than 5	4 (6.7%)	5 (8.3%)
Have you ever received any SEN		
training other than SED4072?		
Yes	30 (50%)	31 (51.7%)
No	30 (50%)	29 (48.3%)



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Apart from SED4072, have you ever		
received any training that covered		
the knowledge and skills in		
supporting students with ADHD?		
Yes	15 (25%)	21 (35%)
No	45 (75%)	39 (65%)

Sixty questionnaires were gathered each round, accounting for 100% of the collection rate. As disclosed in the figure, Year 3 (Pre:85%; Post:86.7%) pupils contributed the most since SED4072 was placed within their third year of study before the practicum. Almost all (Pre:95%; Post:93.3%) respondents got teaching experience with approximately 60% of them having instructed senior forms (Pre: n=35; Post: n=37). Among sixty participants, fifty-two pupils (86.7%) had encountered SEN students with three quarters (n=45) having taught those diagnosed with ADHD. Other than SED4072, around half (Pre:50%; Post:51.7%) of the respondents had received additional SEN training. Comparing the pre-test with the post-test, the percentage of pre-service teachers who had obtained training on ADHD has risen 10% (Pre:25%; Post:35%). Table 1 summarises participants' information.



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# **Quantitative Data Analysis**

# Participants' Knowledge of ADHD

# Table 2. Respondents' ADHD Knowledge

Statement	Pre-Test	Post-Test	Code
	<i>n</i> =60	<i>n</i> =60	
Biological & non-volitional factors			
1. Children with ADHD are born	88.3%	91.7%	True
with biological vulnerabilities to			
inattention and poor self-control.			
4. Children with ADHD could do	18.3%	33.3%	False
better if they try harder.			
Causation			
8. ADHD occurs as often in girls as	51.7%	86.7%	False
in boys.			
Medical & educational			
interventions			
9. Children with ADHD always	15%	30%	False
need a quiet, sterile environment in			
order to concentrate on tasks.			



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11. If medication is prescribed, educational interventions are often unnecessary.	96.7%	96.7%	False
ADHD myths			
15. Most children with ADHD	16.7%	35%	False
outgrow their disorder and are normal as adults.			
17. Diets are usually not helpful in	25%	41.7%	True
treating children with ADHD in			
most cases.			

The initial part of the questionnaire judged pre-service teachers' ADHD knowledge through the nineteen true/false questions. The Mann-Whitney U test was employed to find out if the two samples differ substantially because of SED4072. The *U*-value is 138.5 whereas the critical value of *U* at p<.05 is 113. Therefore, no significant difference is spotted between the two tests. Yet, it is worthwhile to analyse individual questions to gain a sophisticated understanding of respondents' ADHD knowledge before and after training.

Various aspects of ADHD were incorporated. Most (Pre:88.3%; Post:91.7%) participants believed ADHD is biologically caused (Q1), revealing that they had got foundation beforehand. However, accuracy rates of the invalid statement "children could do better if they try harder" (Q4) are low in both samples (Pre:18.3%; Post:33.3%), despite the 15% improvement after training. Respondents likely attached the expectation they placed on ordinary students to ADHD



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individuals. Moving onto "causation", 35% more (Pre:51.7%; Post:86.7%) participants deduced ADHD is more common in boys than that of girls (Q8), suggesting that such information was probably emphasised in SED4072. Results in "medical and educational interventions" are divergent. Scores are low (Pre:15%; Post:30%) on the ideal learning condition for ADHD pupils (Q9). A possible reason for this phenomenon is that local ADHD pupils are usually put in a quiet room during public examinations, which misled respondents in answering Q9. On the contrary, almost all (96.7%) participants properly indicated that educational interventions are necessary though medication has been prescribed (Q11), implying that teachers' accommodations to ADHD students are widely promoted in HK. Results on diets appear to be mediocre, in which 75% of participants in the pre-test and 58.3% of them in the post-test misunderstood diets help treat ADHD in most cases (Q17). Misconceptions continued to prevail in some of the remaining items on ADHD myths. This area of ADHD perhaps was not covered in SED4072. For example, performances on whether ADHD kids can typically outgrow their disorder to become normal adults (Q15) seem unsatisfactory in both tests (Pre:16.7%; Post:35%). Table 2 records respondents' results in correct percentages.

Overall, participants' improvements in their ADHD knowledge are limited with noticeable knowledge gaps.



Participants' Self-Efficacy

Question	Pre-Test	Post-Test
	Mean (out of 9)	Mean (out of 9)
1. How much can you do to get through to the most	4.77	6.08
difficult students?		
3. How much can you do to control disruptive	5.22	6.2
behaviour in the classroom?		
8. How well can you establish routines to keep	6.38	6.72
activities running smoothly?		
13. How much can you do to get children to follow	5.7	6.57
classroom rules?		
15. How much can you do to calm a student who is	5.23	6.2
disruptive or noisy?		
19. How well can you keep a few problem students	5.22	5.95
from ruining an entire lesson?		
22. How much can you assist families in helping	4.12	5.18
their children do well in school?		

# Table 3. Respondents' Self-Efficacy



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The next section evaluated BEd students' self-efficacy towards teaching ADHD pupils through the TSES. Respondents rated each item on a 9-point Likert scale. Another Mann-Whitney U test was conducted to determine whether two samples are statistically significant owing to the training. With a *U*-value of 145.5, it is proved that local training is in relation to participants' self-efficacy in supporting ADHD students, *z*=-2.93, *p*<.05. The following will highlight the influential data to acquire a concrete idea of how results vary within the two tests.

The scores in nearly all items have boosted. Respondents exhibited the greatest self-efficacy (Post:6.72) in establishing routines to keep activities running smoothly (Q8). With repetitive actions, teachers can modify their instructions, facilitating students to follow the lesson closely. In contrast, respondents gave the lowest mark in both tests (Pre:4.12; Post:5.18) to the situation relevant to home-school cooperation (Q22). An explanation is their fear of local "monster parents", who exert unreasonable demands on teachers. Nonetheless, this item has reached the second most visible improvement (+1.06) when comparing the two samples. There are several noteworthy results. The mean score on how well participants could cope with the most difficult students (Q1) has increased from 4.77 in the pre-test to 6.08 in the post-test. In other words, the mean has surged 1.31. Other items demonstrating relatively more evident differences are about regulating ADHD pupils' behaviour, evincing that SED4072 introduced applicable strategies to participants. Examples involve controlling disruptive behaviour in the classroom (Q3) (Pre:5.22; Post:6.2, +0.98), calming a noisy student (Q15) (Pre:5.23; Post:6.2, +0.97), getting children to follow rules (Q13) (Pre:5.7; Post:6.57, +0.87), and keeping problem students from ruining the lesson (Q19) (Pre:5.22; Post:5.95, +0.73). Table 3 presents the figure on participants' self-efficacy in assisting ADHD pupils.



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 25 towards supporting senior secondary students with ADHD In summary, respondents' self-efficacy has strengthened to an extent, appraising themselves as being more confident and capable of managing ADHD individuals in the inclusive classroom after training.

# The Relationship between Participants' Knowledge & Self-Efficacy



Graph 1. The Correlation in the Pre-Test



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Graph 2. The Correlation in the Post-Test

The last part of the data analysis for the questionnaire utilised the Spearman Rank Correlation test twice to detect the strength of the link between pre-service teachers' knowledge and self-efficacy in the pre-test and the post-test respectively. By normal standards, the association between the two variables is considered statistically significant both times. The initial test observes a moderate positive relationship ( $r_s$ =0.59, p[2-tailed] =0) whilst the subsequent test notices a strong positive correlation ( $r_s$ =0.75, p[2-tailed] =0). This implies SED4072 created impacts on participants. An increase in their ADHD knowledge brings about a rise in their self-efficacy (Refer to Graphs 1 & 2).



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 27 towards supporting senior secondary students with ADHD In short, the quantitative analysis informs the three sub-RQs to a large degree. Pre-service teachers' knowledge level and self-efficacy were low before training (RQ1), but their future careers were benefited from SED4072 (RQ2). The accomplishment in respect of their self-efficacy in helping ADHD students is more notable than their knowledge, as exhibited in the two positively correlated variables (RQ3). Still, qualitative analysis is needed to get a full picture, particularly on participants' perceptions.

#### **Qualitative Data Analysis**

Five Year 3 BEd students joined the one-on-one interview before and after SED4072, involving Clara, Grace, Aaliyah, Sabrina, and Hannah. Commonly, they had obtained teaching experiences and had taught S4-6 ADHD pupils. Except for Hannah, they had never got extra SEN training. The interview not only investigated interviewees' perceptions in supporting senior-form ADHD individuals but also further examined their knowledge as well as self-efficacy. After locating repeated patterns across sets of codes from the transcripts (Appendix 4), three themes were confirmed, namely "ADHD Knowledge Before & After Training", "Self-Efficacy Before & After Training", and "Perceptions Before & After Training".

### ADHD Knowledge Before & After Training

Given that Hannah had attended additional training, SED4072 served as a revision to help activate her schema. The remaining BEd students had heard that ADHD belongs to SEN but had got no idea about its details before. The four interviewees, hence, considered their knowledge has fairly enhanced after training by knowing the exact name of the disorder, its symptoms, and possible solutions. Nevertheless, they failed to recall the three ADHD subtypes, i.e. "predominantly



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 28 towards supporting senior secondary students with ADHD inattentive", "predominantly hyperactive-impulsive", and "the combined type". They pointed out that their improvements with regard to ADHD knowledge are not obvious. This reinforces the findings in the questionnaire that respondents' knowledge does not differ significantly due to the training. In the conversation, interviewees voiced their concerns that ADHD concepts stated in the course were superficial.

"... The content on ADHD was too rough that it could be googled easily. Alternatively, I could have searched for such information online and spent fifteen minutes doing the reading to comprehend the concepts." (Aaliyah, Interview 2)

"... We understood that it was hard to include more in-depth content on ADHD considering the tight syllabus and the time constraint... The point is that BEd students are not required to undergo further study on ADHD before officially entering the profession..." (Hannah, Interview 2)

# Self-Efficacy Before & After Training

Changes among the five interviewees' self-efficacy are similar. They used to believe teachers in their early 20s lack capabilities to address issues from ADHD students. Clara, Grace, and Sabrina stressed in the first interview that young teachers are the target of bullies from the eyes of ADHD children. From their perspectives, no way could genuinely treat ADHD kids' misbehaviour. During the second interview, participants admitted they had exaggerated the actual needs of individuals having ADHD. They have gained more confidence from SED4072, presuming themselves being slightly more competent in encountering challenges. Compared with their knowledge, interviewees highlighted that improvements in their self-efficacy are relatively more apparent,



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echoing the findings of the questionnaire. Now, they have some directions to assist ADHD pupils.
Participants asserted that they will use different strategies if one does not work for individual students. Still, interviewees doubted whether they could put what they gained from the course into practice to support ADHD pupils.

"My self-efficacy should be comparatively better than my knowledge... Just hope that I can manage to exercise my capabilities well in the authentic context. There're too many restraints that are beyond our controls in reality..." (Sabrina, Interview 2)

### Perceptions Before & After Training

All interviewees' perceptions have transformed. Originally, their comments on ADHD students were negative, appraising them as the most difficult group to be taught. Participants used to think ADHD students are troublemakers violating rules and demonstrating poor attitudes deliberately. Sabrina claimed ADHD pupils must affect the normal flow of the lesson, especially for those diagnosed with the predominantly hyperactive-impulsive type. Hannah also emphasised the obstinacy of ADHD students in which they insist on their wrong beliefs. Likewise, participants preferred to avoid ADHD students because of the increase in teachers' workloads and pressure inside and outside the classroom. At the end of the first interview, interviewees shared their worries about managing ADHD students during lesson supervisions.

"... I can't imagine including ADHD pupils in the session being observed. When will they refuse to control themselves? My supervisor may blame me for having poor classroom management skills. They're just like time bombs..." (Hannah, Interview 1)



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"... Sometimes, we can't teach even if only one ADHD student exists in the class. What will my supervisor think then?... ADHD students seriously choke me up." (Grace, Interview 1)

Participants held more positive perceptions in the second interview. They have started showing their understanding to ADHD pupils, feeling sympathetic towards their plight in the learning path. From the course, interviewees realised ADHD students do not misbehave intentionally. It is their disorders limiting their abilities to control themselves effectively. With a suitable amount of attention and skills in catering to their needs, participants trusted teaching ADHD students is not an acute problem. They perceived the benefits of including ADHD pupils in the mainstream classroom. After all, there were several impressive points made by them.

"... We should neither look down on them nor give up them. If educators exclude those pupils as well, what will their future be like?" (Aaliyah, Interview 2)

"... No one should hate them... It's a pity knowing that ADHD students suffer a lot at a young age while their peers can grow holistically without the need for special assistance." (Grace, Interview 2)

Notwithstanding, interviewees highlighted barriers that adversely impact their perceptions.

"... Inclusive education is not easy to execute well within local schools though it seems to be idealistic. The HKDSE curriculum is too demanding. Time is very limited... too many students are



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in a class... I can only try my best to offer as much support to ADHD pupils as possible..." (Sabrina, Interview 2)

In a nutshell, the qualitative analysis mainly addresses unexplored parts of the three sub-RQs, i.e. participants' perceptions. Based on interviewees' feedback, SED4072 successfully enhanced their perceptions towards facilitating ADHD pupils' learning at the senior secondary level. Such a variable is interconnected with their knowledge and self-efficacy.

### **Overall Summary**

With the integration of quantitative and qualitative data, the three sub-RQs can be answered in a comprehensive approach. In regards to RQ1, pre-service teachers displayed limited ADHD knowledge with weak self-efficacy and negative perceptions before training. As for RQ2, participants' knowledge has strengthened a bit following SED4072. Improvements in their self-efficacy are perceptible. Meanwhile, participants' perceptions have altered with no distorted or misguided thoughts. Finally, in response to RQ3, participants' knowledge, self-efficacy, and perceptions are positively correlated. A slight increase in the knowledge level of ADHD leads to their higher self-efficacy. By having better knowledge and self-efficacy, they exhibit more positive perceptions in assisting senior-form ADHD students.



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### **Chapter Six: Discussions**

The following discussions are built on quantitative and qualitative results obtained.

### Impacts on Participants' ADHD Knowledge

Referring to the pre-test, pre-service teachers demonstrated rudimentary ADHD knowledge. A conceivable reason is lack of training. SED4072 is the sole SEN course included in the BEd programmes' curriculum at the EdUHK. Although one quarter (n=35) of participants had attended extra training, they were inclined to engage in workshops and seminars (66.7%) rather than enrol in courses. Accordingly, respondents might recall their experiences in encountering ADHD students, draw upon the known information, and even make wild guesses for finishing the entire Section 1 of the questionnaire.

Improvements of participants' ADHD knowledge are not apparent. Misunderstandings on certain areas of ADHD have not been tackled. For instance, only 30% of respondents indicated a sterile atmosphere is not necessarily required for ADHD pupils to stay focused, which contradicts Bekle's (2004) research to a considerable extent. Echoing Bekle's (2004) as well as Liang and Gao's (2016) surveys, participants struggled over questions on diets. Knowledge gaps are also spotted in ADHD myths. An explanation to the phenomenon is SED4072 encompassed many types of SEN. According to the outline, the eight sessions centered on different topics, namely "Guidance & Diversity", "Counselling theories", "Guidance & Counselling Needs", "Inclusive & ADHD", "ID & Gifted", "EBD & Ethnicity", "SpLD", and "ASD". Participants' learning process was presumably fraught with difficulties even the disorders were introduced singly. To fulfil the tight schedule under restricted time, instructors might proceed to the next disorder when students were



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 33 towards supporting senior secondary students with ADHD still digesting the previous information. Their mind-sets were hence chaotic, facing challenges to recall details of ADHD. Besides, the ADHD coverage was insufficient with just a lecture and a tutorial provided. Instructors could only highlight fundamental and the utmost crucial knowledge in class. Less consequential concepts, such as diets and ADHD myths, might be eliminated.

### **Impacts on Participants' Self-Efficacy**

Participants' self-efficacy was quite low at first. A conceivable cause is their unpleasant experiences. BEd students usually work part-time in tutorial centres and partake in internships, giving them opportunities to teach ADHD individuals. Without ample training, they not only failed to use efficacious methods for removing ADHD students' undesirable behaviour but also generated counter-effects, which complicated the problem (Bradshaw & Kamal, 2013; Martinussen et al., 2011). As specified by Ward et al. (2021), past experiences wield profound influences on teachers' confidence in managing ADHD individuals in the future. Thereby, participants overestimated ADHD pupils' actual needs, misconstruing that issues related to them are insurmountable.

Consistent with Reid et al.'s (1994) findings, the training contributed to teachers' higher selfefficacy. The same applies to Latouche and Gascoigne (2017)'s study, in which the intervention group's self-efficacy was greater than that of the control group though a brief workshop was only provided. In this research, enhancements of participants' self-efficacy can be attributed to useful approaches suggested in the lecture. Students then applied their skills gained to resolve ADHD cases in the tutorial. Instructors would comment on pupils' ideas based on their hands-on experiences as registered social workers and counsellors. Participants could extend the mastery to



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 34 towards supporting senior secondary students with ADHD their careers thereafter, granting them a conviction in the practicality of their strategies and a sense of competence (Legato, 2011).

Nevertheless, participants doubted whether they could employ their capabilities well to help ADHD students on some occasions. Their worries are probably owing to the decision-making power within the school. Young teachers lacking such power may not maximise their support to ADHD students, regardless of how feasible the proposed means are. The whole process can be beyond their abilities as they need to conform to the school policy. Another plausible reason is associated with HK parents. Local parents have been depicted as "monsters" since they use all methods to guarantee their kids reach the top, especially for academic results (Chan, 2019). Thus, they may complain about teachers for always devoting their attention to specific students. Indeed, 86% of teachers in HK lamented unreasonable demands from "monster parents" (Kam, 2016). To avoid repetitive complaints, teachers may transfer ADHD students to social workers directly when they disrupt the lesson. This illustrates why respondents' self-efficacy was consistently the weakest (Pre:4.12; Post:5.18) in home-school cooperation.

#### **Impacts on Participants' Perceptions**

In the first interview, participants' remarks on supporting ADHD students were pessimistic, sharing the same viewpoint with teachers from Eisenberg & Schneider's (2007) and Vitanza's (2014) studies. To them, removing ADHD individuals from the class would be much appreciated. There are various factors elucidating their opinion. The foremost argument should be linked to interviewees' workloads (Atkinson et al., 2007). Before the lesson, teachers are expected to carry out extra preparation to tailor-made learning materials for ADHD students. During lesson time,



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teachers need to request hyperactive ones to stop talking and sit still as well as repeat instructions to ensure inattentive ones are on the right track. Research also proved that the probability for teachers to encounter disruptions is much higher when teaching a class containing ADHD pupils (Topkin et al., 2015). After class, they have to contact the parents in case serious problems have happened. The next claim is perhaps about student-teachers' pressure (Greene et al., 2002). In practicums, student-teachers' independent teaching is observed by their supervisors. A grade largely influencing the class of honours in the graduation is awarded to them after each visit. To reduce incidents occurring in the supervision, participants avoided involving ADHD pupils in the class, particularly those belonging to the predominantly hyperactive-impulsive type. Their preference reinforces the findings in Ballantine's (2015) and Li's (1985) surveys.

In contrast, their perceptions have transformed following SED4072. Interviewees have begun to shoulder their responsibilities in promoting ADHD students' learning and appreciate those pupils. This is because training enables teachers to realise underlying reasons for ADHD pupils' behaviour which establishes their greater empathy (Ward et al., 2021). Aside from their disability, ADHD students can be gifted at the same time (Mullet & Rinn, 2015). Lots of them are good at creative writing and artwork designs because of their extraordinary creativity (Boot et al., 2020). Those active ADHD learners help create a pleasant learning atmosphere for the class. More importantly, ordinary students can learn to embrace individual differences and build harmony with people having diverse backgrounds (Landolfi, 2014). By discerning the positive qualities of ADHD pupils, participants might feel that it is worth trying out different strategies in spite of the obstacles come across.



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However, they expressed reservations in handling senior secondary teaching and catering to the needs of ADHD students simultaneously. The central issues seem to be the HKDSE syllabus and time constraints. Each subject comprises compulsory and elective parts with the fulfilment of the SBA (HKEAA, 2021). It might be arguable that teachers lack adequate time to complete the entire curriculum, not to mention face-to-face teaching mode has frequently been suspended under the ongoing pandemic. Directing their attention to ADHD students lessens the time for the rest of the class. Sometimes, they have no choice but to address the needs of the larger group first. In fact, teachers commonly reported that time is the chief impediment to the effective implementation of interventions in the inclusive classroom (Christenson et al., 1989; Reid et al., 1994).

#### Impacts on the Relationships between

### Participants' Knowledge, Self-Efficacy & Perceptions

Echoing the majority of research discussing a similar topic (Gaastra et al., 2016; Legato, 2011; Sciutto et al., 2000), participants' knowledge, self-efficacy, and perceptions are all positively correlated. Yet, the result varies from Merritt's (2017) and Ohan et al.'s (2008) findings, in which the relationships of the three aspects are either negative or inconclusive. In the present study, reaching a better knowledge level tantamount to gaining greater self-efficacy. By comprehending the symptoms of ADHD and knowing the coping strategies, participants might feel that they are competent, engendering more confidence in managing ADHD cases. Not only could they facilitate ADHD pupils to face the HKDSE but also to identify abnormalities among students. They could offer proper accommodations to those individuals as early as possible and help them fight for special arrangements in the public examination (Gastra et al., 2016). In the meantime, they might also recognise that ADHD students' abilities can be just the same or even exceed their pers if


How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 37 towards supporting senior secondary students with ADHD appropriate support has been given. This results in participants' positive perceptions in applying their knowledge and exercising their capabilities to join hands combating the discrimination on ADHD students and maximising their learning in the mainstream classroom.

On the other hand, the three elements correlate stronger in a positive sense after training. A potential explanation is some misapprehensions on ADHD students as well as the disorder were clarified in SED4072. Notwithstanding, exceptional cases can still be detected, meaning that a higher knowledge level does not necessarily induce participants' better self-efficacy and perceptions. Such a phenomenon appears to be caused by their entrenched values. Views that are firmly established are often hard to be adjusted within the short term.



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### **Chapter Seven: Implications**

Educators are confronting unprecedented challenges in catering to the needs of senior-form ADHD students on the grounds that the diagnosed case has continued to surge (Legislative Council Secretariat, 2019). Implications based on participants' feedback will be given below in the hope of enhancing the current practice.

#### **Modifications of SED4072**

Course coordinators and instructors might arrange a meeting to evaluate limitations of SED4072 and make changes to it accordingly. Several points can be placed under their considerations. First and foremost, the scope on SEN could be narrowed down by just including the most common disorders found in local secondary schools, i.e. SpLD, ADHD, and ASD (Legislative Council Secretariat, 2019). If eight sessions are only available as the original schedule, BEd students can still focus on ADHD in approximately three lectures and tutorials. Learning outcomes would be more desirable. An informal guiz with concept check questions could be provided in the last session of each disorder for ensuring pupils' understanding. Concerning the remaining disorders, instructors could offer useful self-study resources for students. The aforementioned adaptations may minimise the probability of creating confusion for pupils. Discussions on ADHD within class time could also become more meaningful, covering wider aspects about the disorder. Besides, the individual final paper ought to be fine-tuned due to its authenticity issue. Specifically, participants had to develop intervention strategies for one SEN student. The problem is that the case was drawn upon their own memory or a YouTube video. Perhaps at least two real cases of each disorder could be given to pupils. More importantly, instructors can assess each student's knowledge systematically using a case required. Receiving affirmations and constructive comments from



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 39 towards supporting senior secondary students with ADHD instructors may boost pre-service teachers' self-efficacy and perceptions towards assisting senior secondary ADHD students as well.

#### **Additional Pre-Service Training**

An extra SEN mandatory course dedicated to ADHD could be inserted into the syllabus of all BEd programmes at the EdUHK. It could be an intensive version of SED4072. To be concrete, undergraduates will be exposed to skills in catering to the emotional and social needs of individuals having ADHD apart from those instructional techniques. The main difference between SED4072 and this tailor-made course is that it is now centering on evident-based learning. Students will evaluate intervention strategies having applied to ADHD pupils in the authentic setting and explore whether any alternative approaches would be more ideal. Other inspiring learning activities could be integrated into the course, involving real-life experience sharing, experiencing disabilities, lesson observations, mock teaching, etc. This may facilitate pre-service teachers to absorb the course content well and enable them to better equip themselves before officially stepping into the educational field. As the EdUHK offers the largest scale of teacher education in HK, it might hence set a good example for other local universities to follow suit. Moreover, the EdUHK is encouraged to stand at the forefront to further cooperate with the EDB and other relevant institutions to launch more high-quality pre-service training programmes covering the knowledge and skills in supporting ADHD students. In that way, pre-service teachers can seize opportunities to exchange ideas and conduct professional dialogues with participants from different backgrounds. Their knowledge, self-efficacy as well as perceptions will eventually be benefited.



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#### Others

Further recommendations can be put forward. The EDB should review the curriculum design of the HKDSE to ascertain if it is inevitable to stick to the one that ordinary students also find intolerable (Lo, 2020). With amendments to the syllabus such as cancellations of less important modules in each subject, burdens of both teachers and ADHD pupils can likely be alleviated, allowing them to enjoy the process of teaching and learning. Other than that, small-class teaching in the senior secondary inclusive classroom can be considered. Teachers could then strike a better balance between devoting their attention to ADHD students and taking care of the rest of the class. To continue lightening teachers' workloads, the government might allocate funds for schools to hire more TAs targeted at helping SEN pupils, particularly the confirmed case of ADHD. For instance, they could hold homework tutorial classes with those pupils after school. Another applicable means is to increase the number of EPs who stay on campus at least four times per week. As pointed out by Shingjergji (2014), EP is "the center of gravity in school offering alternatives and keeping direct relationships with students, teachers, and community" (p.3). Having more EPs lets teachers seek constructive advice in a more straightforward way before taking any actions. Being experts in SEN, EPs could transfer teachers' messages regarding providing certain support to specific ADHD pupils to the principal and department heads. The proposed intervention strategies should be approved easier since opinions from professionals are always deemed more persuasive. Last but not least, schools may invite relevant organisations to give regular parents' talks pertaining to the present trend and situation of ADHD students in the mainstream classroom. It is anticipated that parents with ordinary kids would gradually become more sympathetic and lower the chances to make complaints. All the measures will indirectly



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uplift pre-service teachers' knowledge, self-efficacy, and perceptions towards promoting senior-

form ADHD students' learning in the long term.



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### **Chapter Eight: Conclusion**

The present study intends to examine how local training impacts HK pre-service teachers' knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD. In response to the main RQ stated above, sixty BEd pupils from the EdUHK enrolling in the mandatory course, SED4072 School Guidance and Managing Diversity, during 2021/22 Semester 1 were invited to the inquiry. A pre-test and a post-test were conducted before and after the training, lasting from early September to late December. Integrating respondents' answers in the questionnaire (quantitative data) and interviewees' opinions (qualitative data), it is concluded that participants' knowledge, self-efficacy, and perceptions have improved to a certain extent. Specifically, enhancements in their self-efficacy are more apparent than their ADHD knowledge. Their perceptions can be considered achieving the most significant breakthrough among the three aspects. In addition, the three elements are all positively correlated. An increase in participants' knowledge results in their self-efficacy and better perceptions.

Although the main RQ has been addressed, limitations of the current research still exist. One of the issues is that the sample size is quite small, consisting of just sixty participants in total for both tests. Hence, the results may not be comprehensive enough. Another constraint is that it focuses on the sole SEN course offered in BEd programmes at the EdUHK only. The findings may not be able to reflect the overall situation of local pre-service teachers coming from diverse backgrounds. As an extension, future studies could investigate a larger group of participants who will take SED4072 in the new semester for making comparisons with this paper, particularly if the course is adapted later on. An additional approach is to recruit BEd students belonging to other



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The ultimate goal for educators is to maximise the learning of pupils diagnosed with ADHD. At this stage, corresponding parties are highly recommended to adopt the suggestions elaborated in the previous chapter, involving modifications of SED4072, promotions of supplementary preservice training, and implementations of other practical proposed measures. It is hoped that local training will continue to be enhanced for facilitating pre-service teachers to accommodate the needs of senior-form ADHD students in due course.



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### **Appendix 1: Questionnaire**

How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD

#### **Section 1: Demographics**

Please indicate your personal information by putting a tick  $\checkmark$  in the appropriate box.

- 1. Gender: DMale DFemale
- 2. Age: 18 19 20 21 22 22+
- 3. Year of Study: DYear 1 DYear 2 DYear 3 DYear 4 DYear 5
- 4. Programme enrolled:

 $\square$ BA(LS)&BEd(EL)  $\square$ BEd(EL)

□Others: \_\_\_\_\_

5. Years of teaching experience:

 $\Box$ N/A  $\Box$ 1-3 months  $\Box$ 4-6 months  $\Box$ 7-9 months

 $\Box$ 10-12 months  $\Box$ More than 1 year



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6. Experience in teaching senior forms:  $\Box$  Yes  $\Box$  No

7. Subjects you plan to teach/ are currently teaching:

□Chinese □English □Mathematics □Liberal Studies

□History □Chinese History □BAFS □Economics □Geography

□Physics □Chemistry □Biology □ICT □Others

8. Typical class size: □Below 5 □6-10 □11-15 □16-20

□21-25 □26-30 □Over 30

9. Estimate the number of SEN students you have taught:

 $\Box 0$   $\Box 1-5$   $\Box 6-10$   $\Box$  More than 10

10. Estimate the number of ADHD students you have taught:

 $\Box 0$   $\Box 1$   $\Box 2$   $\Box 3$   $\Box 4$   $\Box 5$   $\Box$ More than 5

11. Have you ever received any SEN training other than SED4072?

□Yes □No



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12. Apart from SED4072, have you ever received any training that covered the knowledge and

skills in supporting students with ADHD?

□Yes (□Short-term course □Long-term course □Workshop □Seminar)

□No



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### Section 2: Knowledge of ADHD

Please decide whether each statement is true (T) or false (F). Circle your answer.

Adapted from Liang & Gao (2016)

**Biological & Non-volitional factors** 

1. Children with ADHD are born with biological vulnerabilities to inattention and poor selfcontrol.

T / F

2. ADHD children misbehave primarily because they don't want to follow rules and complete assignments.

T / F

 The inattention of children with ADHD is not primarily a consequence of defiance, oppositionality and unwillingness to please others.

T / F

- 4. Children with ADHD could do better if they try harder.
  - T / F

Family Influences

5. ADHD can be caused by poor parenting practices.

T / F

6. ADHD often results from a chaotic, dysfunctional family life.

T / F



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## Causation

7. ADHD can be inherited.

T / F

8. ADHD occurs as often in girls as in boys.

T / F

## Medical & Educational Interventions

9. Children with ADHD always need a quiet, sterile environment in order to concentrate on tasks.

T / F

10. ADHD is a medical disorder that can only be treated with medication.

T / F

- 11. If medication is prescribed, educational interventions are often unnecessary.
  - T / F
- 12. Children with ADHD are typically better behaved to 1-to-1 interactions than in a group.

T / F

## ADHD Myths

13. ADHD can often be caused by sugar or food additives.

T / F

14. A child can be appropriately labelled as ADHD and not necessarily over-active.

T / F

- 15. Most children with ADHD outgrow their disorder and are normal as adults.
  - T / F



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16. If a child can get excellent grades one day and awful grades the next, then he must not be

ADHD.

T / F

17. Diets are usually not helpful in treating children with ADHD in most cases.

T / F

18. If a child can play Nintendo for hours, he probably isn't ADHD.

T / F

19. Children with ADHD have a high risk of becoming delinquent as teenagers.

T / F



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# Section 3: Self-Efficacy of Supporting ADHD Students

Retrieved from Tschannen-Moran & Hoy (2001)

# Teachers' Sense of Efficacy Scale<sup>1</sup> (long form)

	Teacher Beliefs				How much can you do?					
	Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing		Very Little		Some		Quite A Bit		A Great Deal
1.	How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	10000
2.	How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4.	How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.	How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.	How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10.	How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12.	How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13.	How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14.	How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15.	How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16.	How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17.	How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18.	How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19.	How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20.	To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21.	How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22.	How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23.	How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24.	How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)



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# Thank you very much for completing the questionnaire! Are you willing to join a 20-minute

#### interview session?

 Yes (Email address/ Contact number: \_\_\_\_\_)

□No

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### **Appendix 2: Interview Questions**

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- 1. Please briefly talk about your personal information (e.g. year of study, the programme enrolled, years of teaching experience, etc.).
- 2. Have you ever taught senior-form students? Which subject(s) do you plan to teach within the HKDSE syllabus?
- 3. Apart from SED4072, have you ever attended any training sessions related to supporting SEN students? If yes, were there any courses/ workshops/ seminars focusing on ADHD? Were they useful or practical? Why or why not?
- 4. Have you ever taught SEN students? What types of SEN do they have? How about pupils with ADHD? What were their grade levels?
- 5. How do you view students with ADHD?
- 6. Do you consider yourself having sufficient knowledge to support senior secondary students with ADHD? Please explain your answer.



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7. Do you believe yourself having the capabilities to help senior secondary students with ADHD?

Are you confident enough to assist those pupils? Please explain your answer.

- 8. Do you think your workload or pressure will be increased because of giving special attention to senior-form ADHD students? Why or why not?
- 9. If you have a choice, will you prefer to teach senior-form ADHD students? Why or why not?

## [To be added in the interview after the training]

- 10. Was the course, SED4072, useful or practical? Why or why not? Please elaborate more on the details of the training you attended.
- 11. How did SED4072 impact your knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD?



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# Appendix 3: Full Version of the Data Collected in the Questionnaire

Variable	Pre-test	Post-test
	<i>n</i> =60 (%)	<i>n</i> =60 (%)
Gender		
Male	16 (26.7%)	16 (26.7%)
Female	44 (73.3%)	44 (73.3%)
Prefer not to say	0 (0%)	0 (0%)
Age		
18	0 (0%)	0 (0%)
19	13 (21.7%)	9 (15%)
20	25 (41.7%)	27 (45%)
21	16 (26.7%)	16 (26.7%)
22	4 (6.7%)	6 (10%)
22+	2 (3.3%)	2 (3.3%)
Year of study		
Year 1	0 (0%)	0 (0%)
Year 2	0 (0%)	0 (0%)
Year 3	51 (85%)	52 (86.7%)
Year 4	9 (15%)	8 (13.3%)
Year 5	0 (0%)	0 (0%)

Table 1. Demographic Data



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Programme enrolled		
BA(LS)&BEd(EL)	17 (28.3%)	17 (28.3%)
BEd(EL)	11 (18.3%)	11 (18.3%)
BEd(CL)	10 (16.7%)	9 (15%)
BEd(geog)	4 (6.7%)	5 (8.3%)
BEd(BAFS)	4 (6.7%)	4 (6.7%)
BEd(sci)	4 (6.7%)	4 (6.7%)
BEd(MA)-(S)	3 (5%)	3 (5%)
BEd(ECE)	2 (3.3%)	2 (3.3%)
BEd(GS)	2 (3.3%)	2 (3.3%)
BEd(hist)	2 (3.3%)	2 (3.3%)
BEd(PE)	1 (1.7%)	1 (1.7%)
Years of teaching experience		
N/A	3 (5%)	4 (6.7%)
1-3 months	11 (18.3%)	10 (16.7%)
4-6 months	18 (30%)	11 (18.3%)
7-9 months	9 (15%)	15 (25%)
10-12 months	3 (5%)	2 (3.3%)
More than 1 year	16 (26.7%)	18 (30%)
Experience in teaching senior forms		
Yes	35 (58.3%)	37 (61.7%)
No	25 (41.7%)	23 (38.3%)



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Subjects you plan to teach/ are		
currently teaching		
Chinese	13 (21.7%)	12 (20%)
English	31 (51.7%)	31 (51.7%)
Mathematics	7 (11.7%)	7 (11.7%)
Liberal Studies	5 (8.3%)	5 (8.3%)
History	5 (8.3%)	5 (8.3%)
Chinese History	5 (8.3%)	5 (8.3%)
BAFS	4 (6.7%)	4 (6.7%)
Economics	4 (6.7%)	4 (6.7%)
Geography	7 (11.7%)	8 (13.3%)
Physics	1 (1.7%)	1 (1.7%)
Chemistry	0 (0%)	0 (0%)
Biology	5 (8.3%)	5 (8.3%)
ICT	1 (1.7%)	1 (1.7%)
Others	13 (21.7%)	12 (20%)
Typical class size		
Below 5	15 (25%)	16 (26.7%)
6-10	13 (21.7%)	12 (20%)
11-15	3 (5%)	2 (3.3%)
16-20	3 (5%)	4 (6.7%)
21-25	8 (13.3%)	8 (13.3%)
26-30	7 (11.7%)	7 (11.7%)



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Over 30	11 (18.3%)	11 (18.3%)
Estimate the number of SEN students		
you have taught		
0	8 (13.3%)	8 (13.3%)
1-5	40 (66.7%)	40 (66.7%)
6-10	9 (15%)	9 (15%)
More than 10	3 (5%)	3 (5%)
Estimate the number of ADHD		
students you have taught		
0	15 (25%)	15 (25%)
1	16 (26.7%)	12 (20%)
2	19 (31.7%)	21 (35%)
3	4 (6.7%)	5 (8.3%)
4	2 (3.3%)	2 (3.3%)
5	0 (0%)	0 (0%)
More than 5	4 (6.7%)	5 (8.3%)
Have you ever received any SEN		
training other than SED4072?		
Yes	30 (50%)	31 (51.7%)
No	30 (50%)	29 (48.3%)



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Apart from SED4072, have you ever		
received any training that covered		
the knowledge and skills in		
supporting students with ADHD?		
Yes	15 (25%)	21 (35%)
No	45 (75%)	39 (65%)
Apart from SED4072, what kind(s) of		
training you have received that		
covered the knowledge and skills in		
supporting students with ADHD?		
Short-term course	2 (13.3%)	9 (42.9%)
Long-term course	2 (13.3%)	10 (47.6%)
Workshop	10 (66.7%)	17 (81%)
Seminar	10 (66.7%)	17 (81%)



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Table 2. Respondents' ADHD Knowledge

Statement	Pre-Test	Post-Test	Code
	<i>n</i> =60	n = 60	
Biological & non-volitional factors			
1. Children with ADHD are born	88.3%	91.7%	True
with biological vulnerabilities to			
inattention and poor self-			
control.			
2. ADHD children misbehave	85%	93.3%	False
primarily because they don't			
want to follow rules and			
complete assignments.			
3. The inattention of children with	70%	73.3%	True
ADHD is not primarily a			
consequence of defiance,			
oppositionality and			
unwillingness to please others.			
4. Children with ADHD could do	18.3%	33.3%	False
better if they try harder.			
Family influences			
5. ADHD can be caused by poor	58.3%	66.7%	False
parenting practices.			



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6. ADHD often results from a	61.7%	80%	False
chaotic, dysfunctional family			
life.			
Causation			
7. ADHD can be inherited.	81.7%	85%	True
8. ADHD occurs as often in girls as	51.7%	86.7%	False
in boys.			
Medical & educational			
interventions			
9. Children with ADHD always	15%	30%	False
need a quiet, sterile environment			
in order to concentrate on tasks.			
10. ADHD is a medical disorder that	80%	83.3%	False
can only be treated with			
medication.			
11. If medication is prescribed,	96.7%	96.7%	False
educational interventions are			
often unnecessary.			
12. Children with ADHD are	71.7%	78.3%	True
typically better behaved to 1-to-			
1 interactions than in a group.			



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ADHD myths			
13. ADHD can often be caused by	41.7%	51.7%	False
sugar or food additives.			
14. A child can be appropriately	43.3%	70%	True
labelled as ADHD and not			
necessarily over-active.			
15. Most children with ADHD	16.7%	35%	False
outgrow their disorder and are			
normal as adults.			
16. If a child can get excellent	96.7%	98.3%	False
grades one day and awful grades			
the next, then he must not be			
ADHD.			
17. Diets are usually not helpful in	25%	41.7%	True
treating children with ADHD in			
most cases.			
18. If a child can play Nintendo for	85%	95%	False
hours, he probably isn't ADHD.			
19. Children with ADHD have a	30%	40%	True
high risk of becoming			
delinquent as teenagers.			



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Table 3. Respondents' Self-Efficacy

Pre-Test	Post-Test
Mean (out of 9)	Mean (out of 9)
4.77	6.08
6.23	6.42
5.22	6.2
5.83	6.07
6.45	6.6
6.32	6.62
6.4	6.4
6.38	6.72
6.32	6.42
6.32	6.4
	Mean (out of 9) 4.77 6.23 5.22 5.83 6.45 6.45 6.32 6.32 6.32



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11. To what extent can you craft good questions for	6.32	6.35
your students?		
12. How much can you do to foster student	6.05	6.37
creativity?		
13. How much can you do to get children to follow	5.7	6.57
classroom rules?		
14. How much can you do to improve the	6.12	6.35
understanding of a student who is failing?		
15. How much can you do to calm a student who is	5.23	6.2
disruptive or noisy?		
16. How well can you establish a classroom	5.8	6.42
management system with each group of		
students?		
17. How much can you do to adjust your lessons to	5.88	6.08
the proper level for individual students?		
18. How much can you use a variety of assessment	5.55	5.92
strategies?		
19. How well can you keep a few problem students	5.22	5.95
from ruining an entire lesson?		
20. To what extent can you provide an alternative	6.35	6.52
explanation or example when students are		
confused?		
21. How well can you respond to defiant students?	5.45	5.98


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22. How much can you assist families in helping	4.12	5.18
their children do well in school?		
23. How well can you implement alternative	5.63	6.15
strategies in your classroom?		
24. How well can you provide appropriate	6.48	6.48
challenges for very capable students?		



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## **Appendix 4: Transcripts of the Interview Sessions**

# [Interview 1]

**Interviewer:** Thank you very much for sparing your precious time to participate in this interview session. Let me introduce myself to you again. I'm Larissa Chan, a final year student from BA(LS)&BEd(EL) who is now working on the honours project.

Clara: You're welcome, Larissa.

**Interviewer:** Perhaps I can reiterate the topic of my research to refresh your memories. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Clara: Alright.

**Interviewer:** First of all, please briefly talk about your personal information (e.g. year of study, the programme enrolled, years of teaching experience, etc.).

**Clara:** I'm a Year 3 Bachelor of Education student majoring in History. English is my minor. I have around two years of teaching experience.

Interviewer: May I know what kind of teaching did you work on previously?

**Clara:** Sure. I conducted private tutoring and worked in a tutorial centre called Principal Chan Free Tutorial World. You should have heard of it before.

Interviewer: Yes.

**Clara:** Also, I joined an internship during the last summer holiday.

**Interviewer:** Wow, you've obtained fruitful teaching experiences. Then have you ever taught senior-form students? Which subject(s) do you plan to teach within the HKDSE syllabus?



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**Clara:** Yes, I've taught S4 pupils. I'd like to teach both History and the English language. Hopefully, schools will allow me to teach English in the future though it's just my minor.

**Interviewer:** Apart from SED4072, have you ever attended any training sessions related to supporting SEN students?

Clara: None of them.

Interviewer: Why not? May I know the reason behind it?

Clara: Cos SED4072 is the only mandatory course that is relevant to SEN in my programme.

Interviewer: I see... Have you ever taught SEN students? What types of SEN do they have?

Clara: Yes, I taught three ADHD students in the past.

**Interviewer:** Would you mind elaborating more? What were their grade levels? How about their symptoms?

**Clara:** No problem. The first one was a Primary 6 girl. She was extremely inattentive. You know what? She could only manage to finish five easy reading comprehension questions within fifty minutes to an hour. Apart from being inattentive, she always scribbled on desks and even walls. The girl also frequently requested my permission to let her go to the toilet. Whenever I blamed her, she would cry easily and started to focus back on her homework. Yet, she would misbehave once again after five minutes. It was simply a vicious cycle. Another student was a Form 1 girl. Basically, she got a very short attention span, especially compared with her peers. She could only concentrate on her assignments for approximately fifteen minutes. Afterwards, she would start turning around to distract other classmates. The final one was a Form 4 boy who forgot to bring his textbooks to the lessons repeatedly. He loved to shout and was quite impolite. When teachers invited him to share his opinions on certain questions, he must tell us that he didn't have any idea. Luckily, he wasn't too disruptive in my class.



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Interviewer: Got it. So, how do you view students with ADHD?

**Clara:** I believe that they're the most difficult types of students to be taught. Those ADHD pupils refuse to manage themselves. They insist on procrastinating, showing intolerable learning attitudes.

**Interviewer:** Aha, let's move on. Do you consider yourself having sufficient knowledge to support senior secondary students with ADHD? Please explain your answer.

Clara: Definitely not at this stage. I'm only sure that ADHD is a kind of special educational needs.

I don't know the symptoms of ADHD actually. By the way, what does ADHD stand for? Attention...

Interviewer: Attention-deficit Hyperactivity Disorder.

**Clara:** Oh yes. From the clue of the name, I guess pupils diagnosed with ADHD are very active and do not concentrate in lessons at all.

**Interviewer:** Great, I hope that you can gain a more in-depth understanding of ADHD in SED4072.

Clara: Thank you.

**Interviewer:** Another question for you. Do you believe yourself having the capabilities to help senior secondary students with ADHD? Are you confident enough to assist those pupils? Please explain your answer.

**Clara:** No! No! No! Based on my experiences, no methods can really successfully deal with the problems of ADHD pupils. Taking one of my ADHD students as an example, I tried to push her to be on task by setting a timer for her. In other words, she was required to complete a certain number of questions within the time limit. Although the time allocated was seriously more than enough, the girl was still unable to do so. Due to procrastination, she just managed to finish half



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of the assigned work. To me, ADHD students are always intended to bully young teachers like me. If the approaches I adopted are still no use in them, I will choose to give up. The low motivational level of ADHD students in academic learning just further reduces my confidence to assist them.

**Interviewer:** How about your workload or pressure? Do you think your workload or pressure will be increased because of giving special attention to senior-form ADHD students? Why or why not? **Clara:** My workload and pressure will certainly be increased. It's necessary for me to think about different methodologies to be used to address their special needs. In addition, I have to spend a noticeable length of time trying out the possible approaches and investigating which one is more appropriate for each student. However, I still need to say that I earnestly don't believe that any means can treat ADHD pupils in reality.

**Interviewer:** A final question for you. If you have a choice, will you prefer to teach senior-form ADHD students? Why or why not?

**Clara:** Haha, you should be able to guess my answer. No, I won't. I don't think I can handle them well, particularly if I've just officially entered the profession. More importantly, including ADHD students in a class at least doesn't work for me. They just further elevate my stress to a considerable extent. You know, teaching has originally been an extremely tough job.

**Interviewer:** Thank you very much for your time today. Good luck in SED4072. Is it possible if we hold another similar interview upon the completion of your course?

Clara: Sure. We can schedule another meeting later.

Interviewer: Thanks for your kindness again. See you.



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[Interview 2]

**Interviewer:** Thank you very much for sparing your precious time to participate in this interview session. Let me introduce myself to you again. I'm Larissa Chan, a final year student from BA(LS)&BEd(EL) who is now working on the honours project.

**Grace:** Not at all, Larissa. I also hope that other students will support my future final year project too.

**Interviewer:** Perhaps I can reiterate the topic of my research to refresh your memories. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Grace: Okay.

**Interviewer:** First of all, please briefly talk about your personal information (e.g. year of study, the programme enrolled, years of teaching experience, etc.).

**Grace:** I'm a Year 3 BA(LS)&BEd(EL) student. Just like you, English is my major. I have around 3.5 years of teaching experience.

Interviewer: May I know what kind of teaching did you work on previously?

**Grace:** I worked in a private tutorial centre, SO-IN Education Centre. I used to carry out several small-group lessons every single Saturday. Besides, I was responsible for an after-school enhancement course in a band 3 boys' school located in Kwai Chung. The aforementioned experiences were all part-time jobs that I engaged in different years.

**Interviewer:** Great to know that. You've made your university life even more meaningful. Then have you ever taught senior-form students? Which subject(s) do you plan to teach within the HKDSE syllabus?



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**Grace:** Yes, I've taught Form 5 students. Obviously, I'll teach the English language within the HKDSE syllabus. Aside from that, I plan to teach Religious Studies in secondary schools as well though it isn't included in the curriculum of DSE. My top priority is to work in a Catholic school given that I've been a devout Catholic since I was little.

Interviewer: You have very nice planning. Indeed, it's great to integrate religion into our careers.

I'd like to teach in a Christian school. Apart from SED4072, have you ever attended any training sessions related to supporting SEN students?

Grace: No. Never.

Interviewer: Why not? May I know the reason behind it?

Grace: I don't think the Education Bureau has ever provided any SEN training for pre-service teachers.

**Interviewer:** Aha... Have you ever taught SEN students? What types of SEN do they have? How about pupils with ADHD?

**Grace:** Yes, surely. I've encountered a student who was diagnosed with ADHD and Asperger Syndrome at the same time. Not sure whether you've heard of it or not.

Interviewer: Asperger Syndrome should be a type of ASD, i.e. Autism Spectrum Disorder.

Grace: Awesome. You're so smart.

**Interviewer:** Haha. Just that I'm really interested in discovering more about special educational needs. Would you mind elaborating more? What was his/ her grade level? How about his/ her symptoms?

**Grace:** Sure, no problem. He was an S5 boy. His emotion could be triggered very easily. You know there's a brand tag attached to our clothes, right?

Interviewer: Yeah, the one behind.



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**Grace:** Right. You know what? When the brand tag made his skin itchy, he would lose his temper too.

Interviewer: What would he do whenever he felt angry then?

**Grace:** He would hurt himself, hit his classmates, and throw the objects around him. It was extremely disruptive, to be honest.

Interviewer: Oh, dear.

**Grace:** That's not the end of his story. He was an attention seeker in every single lesson. If I ignored him occasionally, he would come to the front and hold my hands to beg me. What's more, he was highly impulsive who literally couldn't wait at all.

Interviewer: How about his attention span?

**Grace:** Such a good question. He could not stay focused. He always daydreamt, simply living within his own fantasy world. Anyway, I just don't understand how come his classmates could still accept him and get along with him.

Interviewer: Interesting. So, how do you view students with ADHD?

**Grace:** Overall speaking, they're certainly trouble makers who deliberately act differently than the norms. Sarcastically, they're so brave in my eyes.

**Interviewer:** What do you mean by that?

**Grace:** How can kids have the courage to be that naughty in front of their school teachers? At least, I'm not that courageous. I don't dare to take such risks.

**Interviewer:** Got it. Do you consider yourself having sufficient knowledge to support senior secondary students with ADHD? Please explain your answer.



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**Grace:** Nope. I know what ADHD stands for just because it seems to be so common in Hong Kong. I always hear from my colleagues that loads of students display such problems, but I don't have any idea about the details of ADHD. Perhaps it's all about the mischief of kids.

Interviewer: I wish that you can gain a more in-depth understanding of ADHD in SED4072.

Grace: Thank you.

**Interviewer:** Another question for you. Do you believe yourself having the capabilities to help senior secondary students with ADHD? Are you confident enough to assist those pupils? Please explain your answer.

**Grace:** Of course not. I don't trust that teachers in their early 20s have the capabilities to address the issues caused by ADHD students. They really love to bully teachers who lack adequate teaching experiences, including me. Still remember the Form 5 boy?

#### Interviewer: Yeah.

Grace: Seriously, I don't have any methods to prevent myself from triggering his nerves...

**Interviewer:** How about your workload or pressure? Do you think your workload or pressure will be increased because of giving special attention to senior-form ADHD students? Why or why not? **Grace:** Yes, yes. At least, I need to brief the ADHD pupils before each session so that they can be prepared mentally. While for my pressure, I'll always worry when they'll go crazy and be mentally deranged throughout my teaching. This will adversely influence my performance.

**Interviewer:** A final question for you. If you have a choice, will you prefer to teach senior-form ADHD students? Why or why not?

**Grace:** Removing them from my class will be much appreciated. Sometimes, we can't teach even if only one ADHD student exists in the class. What will my supervisor think then? Teaching has



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already been a crazily tough job. Having them just further increases my mental pressure. ADHD students seriously choke me up.

Interviewer: Thank you very much for your time today. Good luck in SED4072. Is it possible if

we hold another similar interview upon the completion of your course?

Grace: Sure. Please contact me later on.

Interviewer: Thanks for your kindness again. See you.



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[Interview 3]

**Interviewer:** Thank you very much for sparing your precious time to participate in this interview session. Let me introduce myself to you again. I'm Larissa Chan, a final year student from BA(LS)&BEd(EL) who is now working on the honours project.

Aaliyah: Hi, Larissa. It's okay. I'm happy to do so.

**Interviewer:** Perhaps I can reiterate the topic of my research to refresh your memories. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Aaliyah: This is surely a thoughtful piece of work.

**Interviewer:** Haha, thank you. First of all, please briefly talk about your personal information (e.g. year of study, the programme enrolled, years of teaching experience, etc.).

**Aaliyah:** I'm an English major student who is currently in Year 3. I have around two years of teaching experience. I've taught from 2014 until now.

Interviewer: May I know what kind of teaching did you work on previously?

**Aaliyah:** Sure. I focused on private tutoring at first. Later on, I applied for several internships to make good use of my long holidays. I just don't want to waste any time. Time is precious.

**Interviewer:** Exactly. Anyway, you're so studious and show such a good attitude. Other undergraduate students should learn from you.

Aaliyah: Haha, thanks.

**Interviewer:** Then have you ever taught senior-form students? Which subject(s) do you plan to teach within the HKDSE syllabus?



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**Aaliyah:** I think you can guess my answer based on my background. Of course, I plan to teach the English language for HKDSE. Another question is...?

Interviewer: Have you ever taught senior-form students?

Aaliyah: Yes, I did. They were Form 5 at the time when I met them.

**Interviewer:** Apart from SED4072, have you ever attended any training sessions related to supporting SEN students?

Aaliyah: No, no. Zero experience.

Interviewer: Why not? May I know the reason behind it?

**Aaliyah:** Actually, I really want to seize more valuable opportunities to enrich my knowledge and skills in the aspect of SEN rather than only relying on the course that I've enrolled for this semester. I often receive emails about SEN training from SAO. Do you know the Student Affairs Office from our university?

Interviewer: Yeah.

**Aaliyah:** Right. The SAO has a bunch of promotions on those SEN-related training courses or programmes that they organise for EdUHK students. Pupils can even obtain certificates and ELAT records upon completion to enrich their CVs. Yet, the medium of instruction for most of them is usually Chinese only. I've just acquired very basic Chinese which is certainly not enough for me to comprehend complicated concepts.

**Interviewer:** Oh dear. We should voice our concerns to them. Have you ever taught SEN students? What types of SEN do they have? How about pupils with ADHD?

**Aaliyah:** Should be yes. A few of them. But, I'm not sure which types of SEN those students have exactly.

Interviewer: No problem.



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Aaliyah: What I can assure you is that they're confirmed cases of special educational needs.

**Interviewer:** Can you try to elaborate more as far as possible? What were their grade levels? How about their symptoms?

**Aaliyah:** Okay. All of them were secondary school students. They behaved quite differently compared to the usual kids. For instance, the S1 guy always failed to distinguish between b and d. His academic results were very poor. That's why he comes from a low banding school.

Interviewer: I guess he should be diagnosed with dyslexia.

**Aaliyah:** Maybe. One more example was a Form 5 boy. That guy could neither stop rocking his chair nor concentrate in lessons. He frequently raised his hands for requesting to go to the washroom. My boss reminded me not to let him go but to keep him busy. Cos he just loved walking around.

**Interviewer:** The boy that you've mentioned just now displayed typical conditions of ADHD. So, how do you view students with ADHD?

**Aaliyah:** Troublemakers. That's the first word that popped up in my mind. ADHD students are equal to troublemakers. They're too difficult for teachers to cope with. An adjective for depicting ADHD pupils is disastrous. They tend to develop a weird habit to disrupt the class, regardless of their age.

### Interviewer: Aha.

**Aaliyah:** The impression they give me is that a lot of hard work or focus is needed from teachers. They're simply a big deal to me, making me nervous.

**Interviewer:** Let's move on. Do you consider yourself having sufficient knowledge to support senior secondary students with ADHD? Please explain your answer.



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Aaliyah: Certainly not at the moment. It's the main reason that I long to attend extra training. What is the full form of ADHD?

Interviewer: Attention-deficit Hyperactivity Disorder.

**Aaliyah:** Oh, I see. I faced enormous difficulties when attempting to complete the questionnaire designed by you. Like is ADHD often caused by sugar or food additives? Are diets usually not helpful in treating children with ADHD in most cases?

Interviewer: I'm so sorry for creating trouble for you.

Aaliyah: No, that's only because I lack sufficient knowledge. Not your problem at all.

Interviewer: I wish that you can gain a more in-depth understanding of ADHD in SED4072.

Aaliyah: Thank you.

**Interviewer:** Another question for you. Do you believe yourself having the capabilities to help senior secondary students with ADHD? Are you confident enough to assist those pupils? Please explain your answer.

**Aaliyah:** Another "no", unfortunately. I don't have such capabilities or confidence to help ADHD students, not to mention they are at senior grade levels. Perhaps I'm still green. Oh, I guess my rudimentary knowledge of ADHD negatively influences my self-efficacy in supporting them to a great extent. To me, teachers' knowledge and self-efficacy are closely correlated.

**Interviewer:** How about your workload or pressure? Do you think your workload or pressure will be increased because of giving special attention to senior-form ADHD students? Why or why not? **Aaliyah:** Yes, definitely. My workload and pressure will be escalated both inside and outside the classroom.

Interviewer: In what ways?



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Aaliyah: Before the lesson, I'm required to carry out extra preparation on the design of materials.

During the lesson, I should frequently watch out for the ADHD kids and care for them extra.

Interviewer: A final question for you. If you have a choice, will you prefer to teach senior-form

ADHD students? Why or why not?

**Aaliyah:** No, thank you. If an English teacher can manage to complete the whole HKDSE syllabus in a regular classroom and without the need to conduct supplementary lessons under the pandemic, he/ she must be crowned the winner.

Interviewer: What do you mean by a regular classroom?

Aaliyah: A class without any SEN pupils.

Interviewer: Okay.

**Aaliyah:** I'm a local student who is born and bred in Hong Kong. Hence, I do understand the plight of English teachers here. The English language is the second language of most local pupils. It has never been an easy subject to handle, not to mention there're altogether four exam papers, i.e. reading, writing, listening, and speaking. What's worse, the timetable has been compressed since only half-day lessons are allowed. If schools are unluckily suspended, teachers have no choice but to hold sessions online. This further lowers the working efficacy of the two parties.

**Interviewer:** Thank you very much for your time today. Good luck in SED4072. Is it possible if we hold another similar interview upon the completion of your course?

Aaliyah: No problem, Larissa. You just text me when you're available.

Interviewer: Thanks for your kindness again. See you.



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[Interview 4]

**Interviewer:** Thank you very much for sparing your precious time to participate in this interview session. Let me introduce myself to you again. I'm Larissa Chan, a final year student from BA(LS)&BEd(EL) who is now working on the honours project.

Sabrina: Hi, Larissa. You're welcome.

**Interviewer:** Perhaps I can reiterate the topic of my research to refresh your memories. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Sabrina: Got it.

**Interviewer:** First of all, please briefly talk about your personal information (e.g. year of study, the programme enrolled, years of teaching experience, etc.).

**Sabrina:** I'm a double-degree English major student. This is my third year in the EdUHK. I have around four years of teaching experience.

Interviewer: May I know what kind of teaching did you work on previously?

**Sabrina:** I was responsible for carrying out teaching in various small-scale tutorial centres as a part-time staff. The class size only consisted of 4-5 pupils each period.

**Interviewer:** That's nice. It's always good for undergraduates to seize opportunities for receiving more working experiences before truly stepping into society. Then have you ever taught senior-form students? Which subject(s) do you plan to teach within the HKDSE syllabus?

**Sabrina:** I've taught S4 and S5 students English. I'd also love to teach English to prepare for pupils' HKDSE even when I enter the profession in two years. This is the only subject that I'm sophisticated with.



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**Interviewer:** You're still very talented. English as our second language has never been an easy subject for us to master well, not to mention teaching it back to students. Alright. Apart from SED4072, have you ever attended any training sessions related to supporting SEN students?

Sabrina: No, I've never attended any additional training sessions on special educational needs.

Interviewer: Why not? May I know the underlying reason?

**Sabrina:** Cos the original timetable has already driven me crazy. Of course, I'm well aware that relying solely on SED4072 won't enable me to become a competent English teacher to help with the academic learning of senior-form ADHD students. Yet, the programme has assigned so many mandatory courses for me to take literally in every single semester. I have 18-21 credit points to complete on average.

**Interviewer:** I definitely understood as a senior from your programme. You'll even encounter more challenges later. Life isn't easy, but everything will be fine ultimately. Let's return to here. Have you ever taught SEN students? What types of SEN do they have? How about pupils with ADHD?

**Sabrina:** Yes, I've taught a number of SEN students. The most common types that I've encountered so far should be ADHD and dyslexia.

**Interviewer:** Would you mind elaborating more? What were their grade levels? How about their symptoms?

Sabrina: To limit the scope, perhaps I can focus on the diagnosed cases of ADHD.

Interviewer: Whatever is comfortable to you.

**Sabrina:** Okay, the ADHD students that I've met involve both boys and girls. Some were from S1-3, whereas the rest belonged to the senior-form at that time. They were so annoying, disturbing the sessions conducted by me always. They must yell all their ideas out when they could think of



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any. Even though I had already moved on to the next topic, those ADHD pupils would insist on finishing their sentences.

Interviewer: So, how do you view students with ADHD?

**Sabrina:** I admit that I do hold a negative perception of ADHD students, regarding them as one of the most difficult groups to be taught. They simply love to violate class rules deliberately. You know, pupils having ADHD must affect the normal flow of the lesson, no matter which type they were diagnosed with. I need to request the hyperactive ones to shut up and sit still whilst I have to repeat the instructions to ensure the inattentive ones are on the right track.

**Interviewer:** Then do you consider yourself having sufficient knowledge to support senior secondary students with ADHD? Please explain your answer.

**Sabrina:** Nope. I'm sure that ADHD is a typical type of SEN that exists among children, but I have no idea about its details. Like from your questionnaire, are kids with ADHD born with biological vulnerabilities to inattention and poor self-control? Does ADHD occur as often in girls as in boys?

**Interviewer:** Great, I hope that you can gain a more in-depth understanding of ADHD in SED4072.

Sabrina: I hope so.

**Interviewer:** Another question for you. Do you believe yourself having the capabilities to help senior secondary students with ADHD? Are you confident enough to assist those pupils? Please explain your answer.

**Sabrina:** A hundred percent "No". I'm super pessimistic because of always being the target of bullies from the eyes of ADHD children, especially for those belonging to the predominantly hyperactive-impulsive type. I seriously don't know how to confront these delinquent kids.



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**Interviewer:** How about your workload or pressure? Do you think your workload or pressure will be increased because of giving special attention to senior-form ADHD students? Why or why not? **Sabrina:** My life will become even more hectic beyond any doubt. After all the tiring lessons have ended, I may still be required to finish supplementary admin work such as filling in documents and completing written reports about the ADHD students. In case serious problems occur, I have to contact the parents as well.

**Interviewer:** A final question for you. If you have a choice, will you prefer to teach senior-form ADHD students? Why or why not?

**Sabrina:** No. Not until I've become a more experienced in-service teacher. Please don't allocate any ADHD kid to me now.

**Interviewer:** Thank you very much for your time today. Good luck in SED4072. Is it possible if we hold another similar interview upon the completion of your course?

Sabrina: It's okay.

Interviewer: Thanks for your kindness again. See you.



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[Interview 5]

**Interviewer:** Thank you very much for sparing your precious time to participate in this interview session. Let me introduce myself to you again. I'm Larissa Chan, a final year student from BA(LS)&BEd(EL) who is now working on the honours project.

Hannah: You're welcome. Nice to meet you, Larissa.

**Interviewer:** Perhaps I can reiterate the topic of my research to refresh your memories. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

**Hannah:** It seems to me that that's a complicated study for an undergraduate student to work on. You're fabulous.

**Interviewer:** Thank you. I'll just try my very best. First of all, please briefly talk about your personal information (e.g. year of study, the programme enrolled, years of teaching experience, etc.).

Hannah: I'm a Year 3 Bachelor of Education student in English. I got six years of teaching experience.

**Interviewer:** Wow, six years. That's amazing. May I know what kind of teaching did you work on previously?

**Hannah:** Cos my background is quite special. In fact, I'm slightly older than my peers, explaining why I appear to be "experienced". I'm not actually at this stage, haha. In the six years, I mainly conducted private tutoring and worked part-time in a few small-scale tutorial centres located in the North District. Besides, I joined an 8-week practicum during the previous summer holiday.



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**Interviewer:** That's nice. You've made good use of your time to obtain more working experiences before truly entering society. Then have you ever taught senior-form students? Which subject(s) do you plan to teach within the HKDSE syllabus?

**Hannah:** Yeah, I've taught all grade levels in the senior form, involving S4-S6 students. The English language is my top priority, but I'm willing to take up other subjects like Geography if my future school requires me to do so.

**Interviewer:** It's smart for teachers to be flexible like you. Apart from SED4072, have you ever attended any training sessions related to supporting SEN students?

**Hannah:** Yes, I've attended two training courses related to supporting pupils having SEN aside from the one I'm currently taking.

**Interviewer:** Did they focus on ADHD? Were they useful or practical? Why or why not? Could you please elaborate a bit?

**Hannah:** Sure, no problem. To be more specific, the first one was a 36-hour training programme that was co-organised by the EdUHK and the Hong Kong Baptist University. I've already forgotten the exact title of the programme since I enrolled in it during Year 1. The objective was to enhance pre-service teachers' abilities in teaching and taking care of students diagnosed with special educational needs. This programme focused more on ADHD compared to SED4072. Upon completion, I felt like I've become a more knowledgeable person or a more equipped pre-service teacher. As for the second one, it was a general course prepared by the Special Education and Counselling (SEC) department of our university. The course title should be SED3002 A Whole School Approach to Inclusive Practices. Other undergraduate peers told me that it was an intensive version of SED4072. I'm not so sure though. Time will tell.

Interviewer: When did you take SED3002?



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**Hannah:** Should be last year. Broadly speaking, it was about how to help SEN students to survive within a mainstream school. The role of different stakeholders, such as the principal, general teachers, social workers, educational psychologists, and parents, were highlighted, suggesting what kinds of action ought to be taken. The time allocated to each type of disorder was fairly the same, i.e. 1-2 lecture(s). The types of SEN discussed include intellectual disability, physical disability, ADHD, ASD, SpLD, mental illness, and so on. Information provided on each disorder was supported with authentic data. For more details, please refer to the course outline. I can send it to you later.

**Interviewer:** Alright, thank you. Have you ever taught SEN students? What types of SEN do they have? How about pupils with ADHD?

**Hannah:** Yes, certainly. I've encountered them a lot of times. Can't remember the actual number though. I didn't even know those students got special needs when I was younger. The most common types that I've seen should be dyslexia and ADHD. ADHD pupils often have wired obsessions, e.g. bus and trains. My students who belong to the diagnosed case of ADHD are usually boys. They still have ADHD now even after years of treatment.

Interviewer: So, how do you view students with ADHD?

**Hannah:** ADHD students are exceedingly stubborn. They insist on their own beliefs even being morally wrong. I know they're unlucky to have such a disorder, but they should be able to do better if they are willing to try harder. You know, some of them are almost 18. They're going to be an adult officially in a year. Can they at least be politer, be more responsible, and more importantly avoid fidgeting all the time?

**Interviewer:** Then do you consider yourself having sufficient knowledge to support senior secondary students with ADHD? Please explain your answer.



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**Hannah:** I thought my knowledge level should be fine or at least better than others originally. For instance, I'm clear that ADHD occurs more frequently in boys than in girls. I'm also sure that ADHD can further be categorised into three subtypes, namely "predominantly inattentive", "predominantly hyperactive-impulsive", and "the combined type". Yet, I'll answer you "No" after having done the questionnaire sent out by you. I feel like I'm too dumb.

Interviewer: No, don't say that.

**Hannah:** I do mean it. I did wonder whether it was your questionnaire being too tricky. However, I searched on Google, realising that you applied a set of questions with high validity.

**Interviewer:** Indeed, it's a questionnaire that is typically employed in SEN research to test teachers' knowledge of ADHD. I hope that you can gain a more in-depth understanding of ADHD in SED4072.

Hannah: Hopefully...

**Interviewer:** Another question for you. Do you believe yourself having the capabilities to help senior secondary students with ADHD? Are you confident enough to assist those pupils? Please explain your answer.

**Hannah:** No, I don't. I promise that I've already tried my very best to assist my students who got ADHD. I've literally offered as much to them as possible. They just refuse to listen to me. The methods I adopted were useless at all. You know, I'm confident enough to say that I can manage ordinary pupils well and build rapport with them.

**Interviewer:** How about your workload or pressure? Do you think your workload or pressure will be increased because of giving special attention to senior-form ADHD students? Why or why not? **Hannah:** Yes, must be. It is of utmost importance for teachers to spend adequate time discerning the approaches suitable for managing ADHD individuals. If those ADHD pupils do not cooperate



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during lesson time, I have the responsibility to talk to them individually and accompany them to finish their classwork after school. My precious time will then disappear. I still need to mark other students' assignments, prepare for the upcoming lessons, complete admin work, etc. The point is that the marking process for English teachers is so demanding. It's extremely time-consuming, not to mention correcting senior-form pupils' compositions.

**Interviewer:** A final question for you. If you have a choice, will you prefer to teach senior-form ADHD students? Why or why not?

**Hannah:** No, please. I can't imagine including ADHD pupils in the session being observed. When will they refuse to control themselves? My supervisor may blame me for having poor classroom management skills. They're just like time bombs to me. I really feel overwhelmed.

**Interviewer:** Thank you very much for your time today. Good luck in SED4072. Is it possible if we hold another similar interview upon the completion of your course?

Hannah: Sure, I'm happy to do so. You just WhatsApp me.

Interviewer: Thanks for your kindness again. See you.



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[Interview 6]

Interviewer: Nice to see you again in the interview session. Thank you very much for your time.

Clara: Not at all. It's my pleasure to help with your honours project.

**Interviewer:** Your opinions are very influential. By the way, your semester one almost ends, right? Is everything fine?

Clara: Thanks. I'm doing good.

**Interviewer:** Great to hear that. In fact, this meeting serves as a follow-up to our previous interview. Since it has been a while, let me reiterate the topic of my research. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Clara: Aha, I still kind of remember it.

**Interviewer:** Was the course, SED4072, useful or practical? Why or why not? Please elaborate more on the details of the training you attended.

**Clara:** From my perspective, SED4072 was quite useful. I've acquired different strategies to cater to the needs of SEN pupils. I could also make use of relevant approaches to try resolving a specific case in the final paper. Nonetheless, I doubt whether I can put what I've learnt into practice when I encounter a real case in the future. Besides, the course was not too theoretical as various learning activities and materials were provided for me to apply the knowledge gained. Examples involve role plays, online learning tools (cartoon analysis), and videos with mini-games inserted.

**Interviewer:** I see. Referring back to our main focus, how did SED4072 impact your knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD?



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**Clara:** My knowledge of ADHD has slightly strengthened. The course told me something that I've never come across. But, I can't even recall the exact three subtypes of ADHD.

**Interviewer:** Should be "predominantly inattentive", "predominantly hyperactive-impulsive", and "the combined type".

**Clara:** Yes, right. Anyway, I also want to say that my knowledge is only very superficial. Maybe the main problem is that the coverage on ADHD wasn't enough. Among the eight lectures, only one of them was dedicated to ADHD.

Interviewer: How about your self-efficacy then?

**Clara:** My self-efficacy should have enhanced relatively more than my knowledge. At least, I recognised the directions to offer support to ADHD students. Yet, the point is that I'm really wondering whether I can utilise my techniques well in an authentic context due to my personal limitations.

Interviewer: What do you mean by personal limitations? Can you be more specific?

**Clara:** Well, I do not want to neglect any ADHD students initially. However, I wonder whether I can still be able to apply the strategies to deal with them during my bad days. We, teachers, are also human beings. We do have our own personal issues that exert negative influences on our emotions. Occasionally, we just want to finish our teaching without being bothered by those kids. I may fail to control my emotions if they continue to be disruptive.

**Interviewer:** Got it. Could you evaluate the changes in terms of your perceptions towards supporting senior secondary students with ADHD as well?

**Clara:** I do view ADHD pupils in a positive manner now. I realised that their misbehaviour is caused by their disorder instead of themselves. Having ADHD affects one to control themselves properly. Another important point I hope to highlight is that they're neither stupid nor lazy.



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Interviewer: I'm so grateful to see that you show such changes. So happy for you!

Clara: Teaching ADHD students is certainly an uphill battle. Nevertheless, I believe there must

be a way out. It's my responsibility to adjust my pedagogical methodologies so that students with

ADHD can be benefited in the long run.

Interviewer: That's the end of the interview. Do you still have any other points to add?

Clara: No, I think that's it.

**Interviewer:** Alright. Thanks again for participating actively in my research to support me. I wish you all the best in your teaching career.

**Clara:** Same to you, goodbye.



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[Interview 7]

Interviewer: Nice to see you again in the interview session. Thank you very much for your time.

Grace: You're welcome. Your research is very meaningful.

**Interviewer:** Thanks. Without your opinions, my research won't be complete. By the way, your semester one almost ends, right? Is everything fine?

Grace: I'm doing okay. Thank you.

**Interviewer:** Great to hear that. In fact, this meeting serves as a follow-up to our previous interview. Since it has been a while, let me reiterate the topic of my research. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Grace: Alright.

**Interviewer:** Was the course, SED4072, useful or practical? Why or why not? Please elaborate more on the details of the training you attended.

**Grace:** From my point of view, SED4072 was fairly useful. The knowledge highlighted, such as the symptoms of different types of SEN and the coping strategies for each disorder, was interrelated to my future teaching career. I'll not say it wasn't practical or too theoretical. The greatest problem of the course is that it wasn't authentic on the whole. To put it simply, hands-on experiences are definitely needed.

Interviewer: I see. Referring back to our main focus, how did SED4072 impact your knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD?Grace: I'll say my knowledge of ADHD has upgraded a bit. But, just a bit. Now, I'm clear what ADHD is. It stands for Attention-deficit Hyperactivity Disorder. According to the lecturer, ADHD



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is biologically caused. Children with ADHD are normally unable to behave better even if they've tried harder. Nevertheless, my mind is quite chaotic. I've already mixed up part of my knowledge obtained.

Interviewer: Can you give a specific example relevant to ADHD?

Grace: Like how many subtypes of ADHD are there?

**Interviewer:** Should be three in total, namely "predominantly inattentive", "predominantly hyperactive-impulsive", and "the combined type".

Grace: Exactly. Thanks for your reminder.

Interviewer: So, how come you've faced such difficulties?

**Grace:** Perhaps the course included too many types of SEN, e.g. ADHD, ASD, dyslexia, SpLD, etc. Although instructors introduced those disorders to us one by one, the learning process was fraught with difficulties. They had already moved on to the next disorder while I was still digesting the given information of the previous one. Maybe that's only my own problem.

Interviewer: Anyway, how about your self-efficacy?

**Grace:** I need to admit that I had overestimated the actual needs of ADHD pupils. After the course, I did gain more confidence in supporting them. There must be a way out. Nonetheless, I'm wondering whether I can manage to make good use of my abilities to maximise ADHD students' learning in reality.

Interviewer: Why did you say so? Could you please elaborate more?

**Grace:** Hong Kong parents nowadays really love to complain about teachers. They may question me how come their beloved sons and daughters said I always devote my attention to one of the students in class. Meanwhile, it's necessary for me as a professional teacher to protect the ADHD student's privacy. I just don't know what to do whenever I've caught into such a dilemma. To



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 102 towards supporting senior secondary students with ADHD avoid complaints, I may transfer the kid to the social worker directly if he/ she disrupts the lesson. I always feel so dumb and frustrated under these cases.

**Interviewer:** I understood your concern. Could you evaluate the changes in terms of your perceptions towards supporting senior secondary students with ADHD as well?

**Grace:** It's my pleasure to support the learning journey of ADHD students. We should always believe that ADHD students are cute. No one should hate them. Teachers do have the responsibility to cater to their needs as it's essential for them. It's a pity knowing that ADHD students suffer a lot at a young age while their peers can grow holistically without the need for special assistance.

Interviewer: I'm so grateful to see that you show such changes. So happy for you!

**Grace:** Although ADHD pupils may not be good at academic learning, they're still gifted in certain ways, such as artwork designs. The main point is that ADHD students aren't bad, stupid, or naughty. They shouldn't be left out. We, teachers, ought to treat them with love and patience.

Interviewer: That's the end of the interview. Do you still have any other points to add?

Grace: No more.

**Interviewer:** Alright. Thanks again for participating actively in my research to support me. I believe that you'll become a great teacher with a beautiful heart.

Grace: I wish you all the best in your career too. Goodbye.



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[Interview 8]

Interviewer: Nice to see you again in the interview session. Thank you very much for your time.

**Aaliyah:** Welcome, Larissa. I'm happy to do so. Indeed, your research enables me to reflect on my learning process in SED4072 and to review the progress made.

**Interviewer:** Without your thoughtful opinions, my research cannot come this far. By the way, your semester one almost ends, right? Is everything fine?

Aaliyah: Yeah. I'm great, thank you.

**Interviewer:** Great to hear that. In fact, this meeting serves as a follow-up to our previous interview. Since it has been a while, let me reiterate the topic of my research. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Aaliyah: No problem.

**Interviewer:** Was the course, SED4072, useful or practical? Why or why not? Please elaborate more on the details of the training you attended.

**Aaliyah:** From my viewpoint, SED4072 was a bit practical or useful. It provided me with a list of symptoms of ADHD. Examples include excessive talking, being unable to sit still, appearing to be forgetful, being distracted easily, and so on. This may facilitate me to find out the cases that haven't been discovered from my students yet. The major issue is that the entire course wasn't authentic. It was sort of fake, to be honest.

**Interviewer:** Can you explain the expression "sort of fake" that you used just now? It arouses my curiosity to know more about your thoughts.



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**Aaliyah:** Just that the examples given to us were not real. We worked on case scenarios only. In the final paper, we were asked to develop some intervention strategies to help with the academic learning of an SEN student based on our memory or a YouTube video. It was drawing upon our memory or a YouTube video, which was so ridiculous.

**Interviewer:** I see. Referring back to our main focus, how did SED4072 impact your knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD?

**Aaliyah:** Let me comment on the three items one by one. First of all, my knowledge level of ADHD has fairly elevated. Now that I'm brave enough to tell other people the full name of ADHD is actually Attention-deficit Hyperactivity Disorder.

Interviewer: Right.

**Aaliyah:** I not only learnt the above-mentioned specific symptoms but also realised that ADHD can further be categorised into a few types. But, I can't recall how many there are.

Interviewer: Three types in total.

Aaliyah: Oh yes. Do you know which three? I'm so confused.

**Interviewer:** "Predominantly inattentive", "predominantly hyperactive-impulsive", and "the combined type".

Aaliyah: Wow, you're amazing.

**Interviewer:** No, just that I'm working on a research project dedicated to ADHD. How can I forget?

**Aaliyah:** My knowledge of ADHD is neither solid nor comprehensive at this stage. For instance, I still don't really know how to complete your second questionnaire, particularly in terms of dietary treatment. SED4072 didn't provide the information on such an important aspect at all. My accuracy rate in Section 1 of your questionnaire should be very low...



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**Interviewer:** Don't worry. Actually, I can share the correct answers with you if you like. Just treat it as something bonus. For your reference only.

Aaliyah: Sure, thanks so much. The problem is that lecturers touched on the long list of SEN lightly without helping us to grab a more in-depth understanding of each disorder. They should have gone much further. It's like "走馬看花" after all.

Interviewer: Did you note this point down in the evaluation? It seems to be quite influential.

**Aaliyah:** Yeah, I did. The content on ADHD was too rough that it could be googled easily. Alternatively, I could have searched for such information online and spent fifteen minutes doing the reading to comprehend the concepts.

Interviewer: Then how about your self-efficacy?

**Aaliyah:** Compared with my knowledge of ADHD, the differences in my self-efficacy are relatively more apparent.

**Interviewer:** Different in a positive sense?

**Aaliyah:** Right. I still believe that teachers' knowledge and self-efficacy are closely correlated. With slightly better knowledge, I do display higher self-efficacy in supporting pupils having ADHD. Of course, I'm definitely not super confident now. You also won't believe it if I say so. Haha. The point is that I'll make use of different strategies learnt if one does not really work for individual students. But, I'm worried whether the school culture will limit my capabilities to empower ADHD students. At the end of the day, we still have to follow the traditions or rules.

**Interviewer:** Got it. Could you evaluate the changes in respect of your perceptions towards supporting senior secondary students with ADHD as well?

**Aaliyah:** Now, I trust that it's definitely not an acute problem to teach ADHD students with a reasonable amount of attention and the skills in catering to their needs.



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Interviewer: I'm so grateful to see that you show such changes. So proud of you!

**Aaliyah:** Thanks. Like other kids, ADHD students are a gift for their parents. They're also a gift for teachers. We should neither look down on them nor give up them. If educators exclude those pupils as well, what will their future be like?

Interviewer: That's the end of the interview. Do you still have any other things to add or highlight?

Aaliyah: That's pretty much about it.

Interviewer: Alright. Thanks again for participating actively in my research to support me. I wish

you all the best in your teaching career.

Aaliyah: Good luck in writing up your research paper too.

Interviewer: Thank you very much and goodbye.



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## [Interview 9]

**Interviewer:** Nice to see you again in the interview session. Thank you very much for your time. **Sabrina:** Not at all.

**Interviewer:** Your opinions are very influential to my research project. By the way, your semester one almost ends, right? Is everything fine?

Sabrina: I'm fine, thank you.

**Interviewer:** Great to hear that. In fact, this meeting serves as a follow-up to our previous interview. Since it has been a while, let me reiterate the topic of my research. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Sabrina: Okay.

**Interviewer:** Was the course, SED4072, useful or practical? Why or why not? Please elaborate more on the details of the training you attended.

**Sabrina:** To me, SED4072 was somewhat practical cos concrete examples were usually provided to us. Let me make myself clearer. The course basically followed a structure or a framework. Lecturers introduced the disorders to us one by one from the long list of SEN. Maybe I can take ADHD as an example. After giving us the basic information related to the disorder, a video was played to illustrate the symptoms of children diagnosed with ADHD. This not only helped draw our attention but also served as a kind of concrete example. In other words, I didn't need to imagine the conditions of ADHD students on my own. Coping strategies would then be suggested to us. We would work on some case studies in the tutorial thereafter.

Interviewer: I see.



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**Sabrina:** In addition, it was a good idea for the instructors to request us to apply the theories or skills learnt in the final paper for formulating a plan for a target SEN student. I chose to focus on ADHD. However, it wasn't authentic at all, to be completely honest. The case was simply derived from YouTube.

Interviewer: Did your tutor allow you to do so?

**Sabrina:** Yup. We were required to develop some intervention strategies to help with the academic learning of an SEN student according to our memory or a YouTube video.

**Interviewer:** Aha. Another interviewee did emphasise to me this issue. I remember now. **Sabrina:** What's more, the coping strategies provided were mainly for us to support SEN students outside lessons rather than for inclusive purposes. Like how can I adjust my teaching materials to facilitate the learning process of ADHD pupils within my class?

**Interviewer:** I see. Referring back to our main focus, how did SED4072 impact your knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD?

**Sabrina:** My knowledge of ADHD has strengthened a little. The course confirmed me that ADHD can further be divided into two subtypes, namely "predominantly inattentive" and "predominantly hyperactive-impulsive".

**Interviewer:** Sorry for the interruption. Instead, there should be three in total. "The combined type" can be considered the third subtype.

**Sabrina:** Oh, really? Anyway, the recommended coping strategies were new to me, such as the Individual Education Plan (IEP) and the three-tiered intervention model. Nonetheless, the greatest limitation of the course is that the coverage of ADHD wasn't sufficient. More time ought to be devoted to the discussion on ADHD.

Interviewer: Then how about your self-efficacy?



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**Sabrina:** My self-efficacy should be comparatively better than my knowledge. I confessed that I had exaggerated the actual needs of students having ADHD. I should be slightly more capable of encountering the challenges now. Just hope that I can manage to exercise my capabilities well in the authentic context. There're too many restraints that are beyond our controls in reality. Perhaps more teaching practice and experiences are necessary for me.

**Interviewer:** Got it. Could you evaluate the changes in respect of your perceptions towards supporting senior secondary students with ADHD as well?

**Sabrina:** My perceptions towards supporting them have transformed from highly negative to quite positive. ADHD students aren't troublemakers or someone to be seen differently. It's not bad to encounter them in class. Those active ADHD learners can help create a pleasant learning atmosphere for the class.

Interviewer: I'm so grateful to see that you show such changes.

**Sabrina:** Notwithstanding, some barriers adversely impact my perceptions. Inclusive education is not easy to execute well within local schools though it seems to be idealistic. The HKDSE curriculum is too demanding. Time is very limited especially under the pandemic when only half-day school is permitted. What's worse, too many students are in a class. It's hard for teachers to take good care of all pupils at a time. Directing my attention to ADHD students will minimise the time for the rest of the class. Sometimes, it's still necessary for me to address the needs of the larger group first. I can only try my best to offer as much support to ADHD pupils as possible. I do feel sorry for them.

Interviewer: That's the end of the interview. Do you still have any other things to add or highlight? Sabrina: Nothing.



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Interviewer: Alright. Thanks again for participating actively in my research to support me. I wish

you all the best in your teaching career.

Sabrina: Thank you. Bye.



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[Interview 10]

Interviewer: Nice to see you again in the interview session. Thank you very much for your time.

**Hannah:** Hi, Larissa. Nice to see you again too. I'm glad to contribute to your research. Just some random thoughts though.

**Interviewer:** Your opinions are very influential to my research project. By the way, your semester one almost ends, right? Is everything fine?

Hannah: Thank you. I'm doing okay.

**Interviewer:** Great to hear that. In fact, this meeting serves as a follow-up to our previous interview. Since it has been a while, let me reiterate the topic of my research. The title is "How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions towards supporting senior secondary students with ADHD".

Hannah: Yes, I still remember. Your research is very meaningful.

**Interviewer:** Thanks. Was the course, SED4072, useful or practical? Why or why not? Please elaborate more on the details of the training you attended.

**Hannah:** I won't say SED4072 wasn't useful or practical. It was normal to me. I just don't have any special feeling towards this course. Perhaps I had taken another more intensive course, SED3002 A Whole School Approach to Inclusive Practices. Switching the focus back to SED4072, it was more like a foundation course giving BEd students the most fundamental knowledge on special educational needs, involving many types of disorder. Examples include ADHD, ASD, SpLD, visual impairment, hearing impairment, and so on. The tutorials were more helpful cos we could raise questions to clarify anything unclear from the lectures. My tutor was very patient. Also, we were provided with plenty of chances to discuss different case studies to find out the suitable



How local training impacts HK pre-service teachers' knowledge, self-efficacy & perceptions 112 towards supporting senior secondary students with ADHD coping strategies for each scenario. Nevertheless, overall speaking, SED4072 wasn't authentic enough. Real examples ought to be adopted rather than offering us fake cases. The situations were all created or made up by the instructors.

**Interviewer:** I see. Referring back to our main focus, how did SED4072 impact your knowledge, self-efficacy, and perceptions towards supporting senior secondary students with ADHD?

**Hannah:** To be honest, my knowledge level of ADHD is similar before and after taking SED4072. I haven't gained much brand new knowledge from both lectures and tutorials. Maybe that's simply my opinion since I had enrolled in a more intensive one even earlier. However, to be fair, I need to say that SED4072 sort of strengthened my knowledge a bit. It reminded me of something that I had forgotten or mixed up previously, serving as a consolidation.

Interviewer: Great to know that SED4072 still helped with your knowledge on ADHD slightly.

**Hannah:** Oh, wait. There's a huge issue in SED4072. The content on ADHD was extremely rough. My friends said so as well. We understood that it was hard to include more in-depth content on ADHD considering the tight syllabus and the time constraint. Yet, there's a serious problem if it's the only compulsory SEN course to be fulfilled for graduation. The point is that BEd students are not required to undergo further study on ADHD before officially entering the profession. They can become real in-service teachers directly once they've got the graduation certificates. You know what? ADHD is on the rise these years. It's just too common in the local educational field.

#### Interviewer: Got it.

**Hannah:** I was still so confused when dealing with the same questionnaire the second time. My accuracy should be very low, particularly on the ADHD myths. Like do children with ADHD have a high risk of becoming delinquent as teenagers?



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**Interviewer:** Don't worry. Actually, I can share the correct answers with you if you like. Just treat it as something bonus. For your reference only.

Hannah: Sure, thanks a lot.

**Interviewer:** You're just Year 3. You still have time to participate in other training sessions outside school to better equip yourself before graduation. There should be some seminars or workshops focusing on ADHD. Then how about your self-efficacy?

**Hannah:** The improvement in terms of my self-efficacy is relatively more evident. From the sharing of my tutor, I realised that the approaches I used to resolve the problems caused by ADHD pupils were not right actually. Perhaps I can give you a specific example. I used to blame a Form 6 ADHD boy for not being able to search for the correct worksheet from his schoolbag and failing to finish all homework. From my tutor, I learnt that I should have provided him with different colour folders to categorise his worksheets according to the corresponding subjects. Such an organised manner can enable the boy to take out the right worksheet easily next time. As for the second issue, I should have designed a checklist for the boy and requested him to put a tick when he has completed an item. Consequently, he won't be that forgetful.

**Interviewer:** It's always a great idea for us to learn from how other professionals cope with ADHD kids.

**Hannah:** Yeah, exactly. Luckily, I have a unique personality that I won't give up easily. I'll continue to make adjustments in my pedagogical methodologies to better support ADHD students. **Interviewer:** You got a good attitude.

**Hannah:** Nonetheless, I doubt whether I can maximise my capabilities to assist pupils having ADHD in view of the school policy.

Interviewer: Can you elaborate more on the point mentioned above?



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**Hannah:** Sometimes, everything is about power. Young teachers who don't have decision-making power may still be unable to maximise their support to ADHD students, regardless of how feasible the suggested methods are. After all, we need to conform to the school policy and follow the opinions of the department heads. It's simply beyond our abilities.

**Interviewer:** Got it. Could you evaluate the changes in respect of your perceptions towards supporting senior secondary students with ADHD as well?

Hannah: I feel sorry that ADHD students are always the ones being misunderstood, not only by classmates but also by their teachers. There're so many haters surrounding them. I do confess that I used to put a wrong interpretation on them. Now, I'm well aware that pupils with ADHD indeed cannot perform better even if they've tried harder. It's their disorder that limits their abilities to control or manage themselves. What teachers can do is offer appropriate assistance to them.

Interviewer: I'm so grateful to see that you show such changes.

**Hannah:** I did perceive the benefits of including ADHD pupils in the mainstream classroom. Ordinary students can learn to embrace individual differences and build harmony with people having diverse backgrounds. Our real society is like this. They should learn to show love and care to one another starting from a young age.

**Interviewer:** That's the end of the interview. Do you still have any other things to add or highlight? **Hannah:** That's it.

**Interviewer:** Alright. Thanks again for participating actively in my research to support me. I wish you all the best in your teaching career.

Hannah: Thanks for your invitation. Wishing you all the best too. Goodbye.

