A Project entitled

The Influence of Physical Activity to Emotional Control of Children with Intellectual Disability

Submitted by

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submitted to **The Education University of Hong Kong**

for the degree of **Bachelor of Education (Honours) (Physical Education)**

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Declaration

I, **Chan Hou Yee** , declare that this research report represents my own work under the supervision of ***Assistant Professor, Dr TSE, Choi Yeung Andy***, and that it has not been submitted previously for examination to any tertiary institution.

Signed _____

Chan Hou Yee

19 April 2019

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Abstract

Background: Intellectual Disability (ID), identified as general learning disability and mental retardation. It is also a generalized neurodevelopmental disorder which characterized by severe impairment of intellectual and adaptive functioning. Emotional control is common problem among students with ID. Better emotional control may help students who suffer from ID to improve life quality. Several researches have indicated that physical activity have potential positive impact to mental health of people. **Objective:** The purpose of this study is to explore the relationship between physical activity and emotional control of children with intellectual disability through doing regular physical activity, and the impact of physical activity to emotional control of children with ID. According to the literature, doing physical activity have positive influences on mental health of children with ID. **Research methods:** This study will obtain the data through asking 53 students (45 boys & 9 girls) with ID from three different special local schools. The content of the questionnaire includes students' habits of doing physical activity and their emotions. The data will use bivariate correlation in SPSS to analyze. **Results:** In thus study, statistically significant differences were seen between physical activity and emotional control of children with intellectual disability ($p < 0.05$). Also, some of the questions showed moderate negative correlation ($r < -0.3$). **Conclusions:** The relationship between physical activity and emotional control in children with intellectual disability is proved. However, the design of study is too weak, and influences are small to moderate. In the future, it is important that a high-quality experiment is required to verify the association between children's physical activity and emotional control in the research. It should include a control experiment to compare the emotional control performance of ID children who engage and not engage in physical activity. It would increase the persuasion of the research.

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Introduction

According to the Hong Kong Down Syndrome Association HKDSA (2016), Intelligence refers to the ability of a person to abstract thinking such as understanding, memorizing, data using and problem solving. Intellectual disability (ID) is a disability and the main characteristic is lack of intelligence. The abilities are lower than others in the same age. And it will appear before the age of 18.

People with ID have significant limitations in adaptive behavior, which includes three types of skills. They are conceptual skills, social skills and practical skills. People with ID may face many difficulties in these areas. It may be more difficult to cope with the challenges in living and affect the operation in daily life directly (American Association on Intellectual and Developmental Disabilities, 2018).

In this group, there are around 85% of people with ID. Their IQ is about 50-69. During the pre-school period which is 0-5 years old, children can develop communication skills and social skills (HKDSA, 2018). To compare with normal children, sensory impairment is not easy to obvious before they are older. The foreign data showed that every 100 people, there are 1 person with ID. About 85% of them are mild ID, 10% are moderate ID and the other are severe and profound ID. According to the report of Census and Statistical Department (2014), the prevalence rate of ID is 1.0% to 1.4%. Moreover, the statistics of the Education Bureau in 2015-2016, the registration of ID figure is 0.8%.

Some illnesses may occur at the same time. Common illnesses include lack of focus, hyperactivity disorder and autism spectrum disorders. In view of the intelligence limitation of students with ID, they are easy to express their wishes by getting mad when they face the difficulties and needs cannot be fulfilled. A research showed that

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more behavioral problems to boys with ID especially in relation to disruptive, self-absorbed and antisocial behaviors (Molteno, Finchilescu & Dawes, 2008). Emotional and Behavior problems occur at a high rate in children and adolescents with ID (Herring, Gray, Taffe, Tonge, Sweeney & Einfeld, 2006).

Given the above-mentioned negative influences of emotional and behavior problems to children with ID, it is important to develop effective and positive strategies to solve the problems of these children.

Most of the therapy to children with ID by using medicine, clinical psychologist, Speech-language pathology, etc. However, these professional training and treatment are very intensive and use a lot of time. Parents may not have enough time to do therapies with children. The main problem is these therapies are very expensive and some of the parents could not afford. However, there are one possible and lower price to help and train children with ID is physical activity.

Aftereffects of the investigations keep on supporting more and more literature which proposing that physical activity have beneficial impacts over various physical and mental health results. By and large, people taking part in regular physical activity show advisable health results over diversity physical conditions. Additionally, participants in randomized clinical tests of physical-activity interventions display better well-being results including well functional ability and well mood states (Penedo & Dahn, 2005). Scott and Thomas (2000) stated that physical activity played an important role in the controlling of metal health. Besides, Fox (1999) research found that physical activity has sufficient evidence on reducing anxiety and improve physical self-perceptions and self-esteem.

More importantly, general research can provide evidence that physical activity has

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positive impacts to children with ID. For instance, review claimed that Special Olympics promotes physical and mental health of people with ID. Furthermore, Pan (2006) showed that basic motor ability training on intelligential of children with intellectual disability has positive development. Tang (2016) stated that the somatosensory games had maintenance effects on hand-eye coordination ability of students with intellectual disabilities. In addition, relationship between physical activity and mental health in young people is evident. Physical activity has potentially positive influence for reduced depression (Biddle and Asare, 2011). The aforementioned proposed that physical activity is benefit to students with ID.

Many reviews have provided sufficient evidence to prove that physical activity has positive impacts on mental health including depression, anxiety, functional ability, etc. Even physical activity has beneficial effects to people with intellectual disabilities.

People with ID have severe problems on emotional control. They are easy to get angry and hit others. If physical activity can improve mental health, it can also help them to improve emotion management. However, there are few researches have been completed on the influence of physical activity on emotional control in this group.

The aim of this study is to fins that the relationship between physical activity and emotional control, and the influence of physical activity to emotional control of students with ID.

Hypothesis

In this study, assuming that physical activity affect emotional control of children with intellectual disability and physical and emotion control are relevant.

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Methodology

Study design

The proposed study will be randomized interview trial to students with Intellectual Disabilities from three different local special school. They will be interviewed about doing physical activity habits and emotions.

Participants Characteristics

53 participants including 45 boys and 9 girls will be recruited for the proposed study from three different local special schools. The age is 9-16 years. All of the participants who have been assessed as child with Intellectual Disabilities. The contact of the participants will be obtained through schools and participants.

Inclusion Criteria

In this study, participants have a consistent standard. Their intelligence quotient is less than 70. They all completed The Autism Diagnostic Interview-Revised (ADI-R) and took the Wechsler Intelligence Scale for Children (WISC). Their participation in physical activity more than 3 times per week and not less than 30 minutes every time. All of the participants are able to communicate with others and follow the instructions.

Exclusion criteria

There are some conditions will be excluded for participants. First, physical activity limitation affected by medical conditions (e.g. cardiac disease, asthma) will not be included. There is no other physical disease (e.g. seizure disorder, epilepsy) among the participants.

Emotional control Characteristics

Because of the limited intelligence of students with ID, when they encounter difficulties or needs cannot be satisfied, it is easy to express their wishes by losing their

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temper, and even to disturb others. Thus, in this study, emotional will be classified into anxiety, depression and behavioral problems.

Data collection

Each participant will be interviewed by a researcher in the morning before school where will be assessed their physical activity, emotional well-being and emotional regulation. Parents' or guidance's approval will be completed before participating in this research.

Data analysis

All the data will use bivariate correlation in SPSS to analysis the relationship between physical activity and emotional control of the participants. To investigate the research objective, bivariate correlation will be used to evaluate positive or negative relationship between physical activity (variable 1) and emotional control (variable 2). It can measure the connection of the relationship between two variables. The correlation coefficients vary from 0 (no relationship) to 1 (perfect linear relationship) or -1 (perfect negative linear relationship). If there is a direct relationship, positive coefficients will be displayed that when one variable raises, the other variable also raises. When one variable increases, the other decreases. It displays negative correlation coefficients with an in direct relationship.

Result

In this part, the relationship between physical activity and emotional control will show by the table and try to explain the reasons. 4 of the most obvious correlation will be show up.

In the study, no statistically significant differences were seen between physical activity and emotional control of children with intellectual disability ($p > 0.05$). However, some of the questions showed moderate negative correlation ($r < -0.3$). As

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the trait of the questions about emotional control were negative and the questions about physical activity were positive. Therefore, it is rational to have negative correlation.

我喜歡自己一個做運動 vs 我容易發脾氣	
Correlation Coefficient (r)	-.322*
Sig. (2-tailed) (p)	.019

Table 1. Correlation between PA Q7 and EM Q2

我喜歡跟不同朋友一起做運動 vs 我感到不快樂	
Correlation Coefficient (r)	-.350*
Sig. (2-tailed) (p)	.010

Table 2. Correlation between PA Q8 and EM Q10.

我希望可以參加更多運動 vs 當我生氣時，我會無法控制自己爆發的情緒	
Correlation Coefficient (r)	-.346*
Sig. (2-tailed) (p)	.012

Table 3. Correlation between PA Q14 and EM Q6

學校要我做運動，令我培養到做運動的習慣 vs 我經常感到緊張	
Correlation Coefficient (r)	-.303*
Sig. (2-tailed) (p)	.027

Table 4. Correlation between PA Q6 and EM Q9

As the study hypothesis, children's' physical activity and emotional control are relevant and physical activity affect emotional control, but the verification base is

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limited as the quality of the study deigns are not enough. The data analysis has been shown that there were positive correlations between physical activity and emotional control of children with intellectual disability with few small to moderate correlations ($r > 0.2$ and < 0.4). Table 1, 2 & 4 displayed ID children felt less negative emotion while they like to do physical activity with different friends or by themselves and have the habit of doing physical activity. Table 3 indicated that children with ID could control their emotion related to their aspiration on participating in physical activity. Physical activity can improve children's emotional control ability. However, the evidence base is limited, and these relationships are generally small.

Discussion

The purpose of this study is to explore the relationship between physical activity and emotional control of children with intellectual disability through doing regular physical activity, and the impact of physical activity to emotional control of children with ID. The current study observed the relations and the impact of children's physical activity on their emotional control outcomes.

The anxiolytic influences of physical activity in the general population and in clinically defined groups have been well recognized in several studies over the past decades (O'Connoretal.,2000). Physical activity has also been observed to have an anxiety-reducing impact in people with intellectual disability (Carmeli et al., 2009). As prediction of the study, the association between physical and emotional control has small to moderate correlation. The range of correlation coefficient from -0.272 to -0.350.

A study reported that anxiety of people with intellectual disability could be reduced by short-term exercise programme (Carraro & Gobbi, 2012). Table 1 indicated that children with ID have lower scores in easy to get mad while they like to do physical

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activity alone have higher scores. The findings seem to support the idea that physical activity may lead to reduce negative emotions.

The research supported the view that exercise has related positive impact on anxiety in intellectual disability people around short-term programmes due to those reported in the common population and in clinically defined groups (DiLorenzo et al., 1999; Khan, Marlow, & Head, 2008; Wipfli et al.,2008). The outcomes of the current study showed that children with ID who like doing physical activity with friends seems to be more efficient in reducing negative emotions.

A report from U.S. Department of Health and HumanServices (1999) documented that there was a biochemical basis of anxiety found in the brain. Thus, it is reasonable that physical activity can produce changes of biological related with reducing anxiety. However, it is needed to examine further the instruments that are engaged with anxiety reactions so as to more readily adjust the habit of doing physical activity in children with intellectual disability.

Many researches stated that engaged in regular physical activity can bring benefits to people who have depression and anxiety mental problem (Peluse & Andrade, 2005). This fact is confirmed by recent research reports. One of the studies provided evidence that physical activity could reduce symptoms of depression and anxiety (Dunn, Trivedi & O'Neal, 2001). Their study is to observe the scientific evidence for a correlation between physical activity and the disorders of depressive and anxiety. As most of the studies did not specific identify the type of physical activity, any type of physical activity (leisure-time or occupational) were included to measure the impact on depression and anxiety. There were total of 37 studies were suitable for including in the study. Quasi-experimental studies or RCTs accounted 19 of the included investigations. The information about intensity, duration and frequency of physical activity treatment

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was provided from the data of quasi-experimental studies and RCTs. The information provided the evidence that symptoms of depression may reduce by mild, moderate and strength intensity physical activity. However, the evidence of people who diagnosed as an anxiety disorder were less. Moreover, the data provided evidence that symptoms of anxiety and depression may reduce by aerobic exercise and resistance training. The data from the observational studies provided the information of influence of engaging in occupational and leisure-time activity with different frequency to the level of depression and anxiety. These studies showed that more activity was mostly associated with a decrease in symptoms of depression.

Other studies showed that people who have regular exercise habit have better emotion than people who do not have exercise habit. A study evident the fact. Antunes, etc. (2013) had assessed the frequency of symptoms of depression and anxiety in a group of people and their relationship of engaging regular physical activity. The data have collected by two simple questionnaires which were arranged to assess and classify physical activity. There were 1042 volunteers completed the survey. Form the results of the study, compare with individuals who participated in physical activity regularly, individuals who did not take part in physical activity were two times more possible to display conditions of depression and anxiety. In addition, a higher incidence of conditions of depression and anxiety was perceived among people who claimed that did not engage physical activity regularly and most of the interviewees related did not take part in any regular physical activity. The study results showed that people who were not engaged in physical activity are more likely to develop symptoms of depression and anxiety than those who regularly engage in physical activity.

Furthermore, physical activity is not just related with improvement of emotion. Peluso and Andrade (2005) stated that there were some changes of emotion from elite

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athletes. Their emotion did not have improvement after observed a moderate level of physical activity. However, compare with the state before take part in physical activity, emotion could become worse after an intense physical activity or few days of intense physical activity. Emotion improvement appears to be related with moderate intensity of exercise. Moreover, Peluso and Andrade (2005) also claimed that when athletes did not have impairment on sports performance, they will display deterioration of emotion. Besides, as to achieve the goal of performance increasing, athletes 's physical ability have to reach to the limit. However, it was hard to balance ideal training and over training. Thus, athletes always occur over training and it was not a rare situation. In this situation, athletes started to occur more obvious problems such as sleeplessness, irritability, lability of emotion and even depression. It was estimated that the incidence of athletes is 7% to 20% in this case during each of training season. Some believed that this case has higher incidence in elite athletes and endurance exercise due to the extensive training programme of them. For example, there was over 60% incidence among to the occupation of elite runners.

The relationship between physical activity and emotional control is proved but evidence was small. Many researches provided evidence on engaging physical activity could reduce depression and anxiety. Besides, there was evidence that moderate exercise has improvement on emotion. However, physical activity may also be harmful, especially when carried out in an unsuitable or high intensity way. High intense exercise may lead deterioration of emotion, and these emotional changes were more related to depression.

Limitations

As with others study, there are some limitations must be solved in this study. First, the study objectives and aims are too generally. I might identify in which range the set-

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up of study aims and objective could be limited so that the level of focus of the research could be improved. For example, I might focus on one physical activity concretely.

Second, method of data collection might influence the reliable or available of data. There was no extensive capability in collecting primary information of the researcher. Therefore, it might lack in the nature of the realization of data collection procedures.

Third, the sample size is too small. It would be difficult to find the significant relationships form the data. Base on this study, if in lager sample size it could produce more precise outcomes and to certify a representative distribution of the over population.

Besides, lack or previous research on this topic. Most of the research showed that physical activity could improve mental health. However, there is few literatures showed that physical activity could improve the emotional control of children with intellectual disabilities. It is hard to lay the foundation on understanding the study problem.

In addition, there might exist bias in the current analysis of the literature. It could be affected the effectiveness of the study results. This could be based on different researchers have different research methodology.

Last but not least, participants are not enough consistent as they came from three different special schools. The education that they received is different. It might affect their differences in emotional control.

Also, the age range of participants are too wide. Different age of participant has different experience on emotional control. The older might have more or better experience on emotional control.

Conclusion

To conclude, relationship between physical activity and emotional control in children

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with intellectual disability is proved. However, the designs of study are often too weak, and influences are small to moderate. In the future, it is important that a high-quality experiment is required to verify the association between children's physical activity and emotional control in the research. It should include a control experiment to compare the emotional control performance of intellectual disability children who engage and not engage in physical activity. It would increase the persuasion of the research.

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Appendix 1: Questionnaires

DATA COLLECTION SHEET

Basic subject information:

姓名：_____	身高：_____cm
班別：_____	體重：_____kg
歲數：_____	

今天我們將進行一些測試；這個研究的目的是想睇下你既智力同你既了解你的性格。您需要回答我一些問題。

情緒管理

1 非常不同意　　；　2 不同意；3 一般　；4 同意；5 非常同意

1	如果達不到目標，我會生氣、會鬧人。	1	2	3	4	5
2	我容易發脾氣。	1	2	3	4	5
3	待動不動就會想打人。	1	2	3	4	5
4	我容易因小事而難過。	1	2	3	4	5
5	我無法專心做事。	1	2	3	4	5
6	當我生氣時，我會無法控制自己爆發的情緒。	1	2	3	4	5
7	我容易感到害怕。	1	2	3	4	5
8	我不敢接觸新事物。	1	2	3	4	5
9	我經常感到緊張。	1	2	3	4	5
10	我感到不快樂。	1	2	3	4	5

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運動參與問題

一星期做多少次運動 （30 分鐘或以上）

A 0 次 B 1-2 次 C 3-4 次 D 5 或以上

1 非常不同意 ； 2 不同意；3 一般 ；4 同意；5 非常同意

問題	1	2	3	4	5
1) 我做運動時會感到開心。	1	2	3	4	5
2) 我很喜歡做運動。	1	2	3	4	5
3) 我經常做運動。	1	2	3	4	5
4) 如果因為天氣關係令我無法做運動會感到失落。	1	2	3	4	5
5) 學校鼓勵我去參加運動。	1	2	3	4	5
6) 學校要我做運動，令我培養到做運動的習慣。	1	2	3	4	5
7) 我喜歡自己一個做運動。	1	2	3	4	5
8) 我喜歡跟不同朋友一起做運動。	1	2	3	4	5
9) 運動過後我會感到心情放鬆。	1	2	3	4	5
10) 我做運動時識到很多不同的朋友。	1	2	3	4	5
11) 做運動之後令到我上課時更專心。	1	2	3	4	5
12) 運動後我會很疲倦。	1	2	3	4	5
13) 我每日都想去做運動。	1	2	3	4	5
14) 我希望可以參加更多運動。	1	2	3	4	5

謝謝你的回答

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Appendix 2: Consent from (For School)

香港教育大學

<健康與體育學系>

THE EDUCATION UNIVERSITY OF HONG KONG
<Department of Health and Physical Education>

參與研究同意書(學校)

長跑對智力障礙學生的情緒控制之影響

CONSENT TO PARTICIPATE IN RESEARCH (FOR SCHOOL)

The influence of Long Distance Running to Emotional Control of children with Intellectual Disability

本校同意參加由謝采揚博士負責監督，陳皓宜負責執行的研究計劃。她/他們是香港教育大學學生/教員。
My school hereby consents to participate in the captioned project supervised by Dr. Andy Tse and conducted by Chan Hou Yee, who are staff / students of the Department of Health and Physical Education in The Education University of Hong Kong.

本人理解此研究所獲得的資料可用於未來的研究和學術發表。然而本人有權保護本校學生/教師的隱私，其個人資料將不能洩漏。
I understand that information obtained from this research may be used in future research and may be published. However, our right to privacy will be retained, i.e., the personal details of my students'/teachers' will not be revealed.

研究者已將所附資料的有關步驟向本人作了充分的解釋。本人理解可能會出現的風險。本人是自願讓本校學生/教師參與這項研究。
The procedure as set out in the **attached** information sheet has been fully explained. I understand the benefits and risks involved. My students'/teachers' participation in the project are voluntary.

本人理解本人及本校學生/教師皆有權在研究過程中提出問題，並在任何時候決定退出研究，更不會因此而對研究工作產生的

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影響負有任何責任。

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

簽署 Signature: _____

校長/ 學校代表*姓名: (教授/博士/先生/女士/小姐*)

Name of Principal/Delegate*: _____ (Prof/Dr/Mr/Mrs/Ms/Miss*)

職位:

Post: _____

學校名稱:

Name of School: _____

日期:

Date: _____

(*請刪去不適用者)

(* please delete as appropriate)

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有關資料

INFORMATION SHEET

長跑對中度智力障礙學生的情緒控制之影響

The influence of Long Distance Running to Emotional Control of children with Intellectual Disability

誠邀 貴校參加謝采揚博士負責監督，陳皓宜負責執行的研究計劃。她/他們是香港教育大學健康與體育學系的學生/教員。

Your school is invited to participate in a project supervised by Dr. Andy Tse and conducted by Chan Hou Yee, who are staff / students of the Department of Health and Physical Education in The Education University of Hong Kong.

研究計劃簡介

The introduction of the research

A) 闡述研究計劃的目的

A) What does the research involve?

不同的研究已經證明了運動對青少年有好處。更有研究指出跑步對大腦發展有幫助，尤其是「工作記憶區」及「自我控制區」。可是，研究運動對有智力障礙的青少年卻很少。有研究指患有智力障礙的青少年的情緒控制較正常青少年差。這項研究旨在調查長跑對青少年情緒控制的影響

The benefits of physical activities have been proved by many researches. More research also showed that the advantages of running to the brain, especially working memory and self-control. However, there are few researches showed the benefits of physical activity to teenagers with intellectual disability. To compare with normal teenagers, the emotional control of intellectual disability teenagers is worsened. Thus, this research is aim at finding the influence of running to emotional control of teenagers with intellectual disability.

B) 說明選擇該組參與者的原因

B) Why were you chosen for this research?

中度智障學生的情緒控制較輕度智障學生差，但中度智障學生的言語表達較嚴重智障學生好。而且，他們有規律性地參加晨跑。因此選擇中度智障學生可以幫助我們取得一個較準確的結果。

Moderate intellectual disability students may have worsened emotional control than mild intellectual disability students. However, moderate intellectual disability students may have better verbal expression than severe intellectual disability students. Moreover, the group of moderate intellectual disability

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students from two different school have participate in a regular morning running program. Therefore, choosing moderate intellectual disability students may help us getting a more accurate result.

研究方法

The methodology of the research

A) 參與人數

A) Describe how many participants you will include in this study

此研究將會招聘約十五至二十名參與者。參與者的聯繫將通過學校和參與者獲得。

15-20 participants will be recruited for the proposed study. The contact of the participants will be obtained through schools and participants.

B) 說明工作及步驟

B) Procedure of the research

由於所有參與者的年齡都少於 18 歲，所以在參與研究前，他們的家長或監護人需要填寫一份同意書。參與者將會在中一至中三的班別中隨機抽選，而他們需要在體育課期間填妥問卷。他們將會被安排到一個有研究員監察的課室中填妥問卷。參與者在該課室內需要保持寧靜，而研究員將會首先向參加者講述本研究的目的。另外會向他們講解填寫問卷的指引和告訴他們答案沒有「對」與「錯」之分。他們填妥問卷後便直接將問卷給研究員。而個人資料只會作本次研究使用，不會向其他人洩露。

As all participants are below 18 years old, parents' or guidance's approval will be completed before participating in this research. Participants will be randomly selected from form one to three classes. Participants are required to fill in a questionnaire at the beginning of their PE lesson. They will be assigned into a quiet classroom with a researcher monitoring the whole process. Then the researcher will explain the purpose of this questionnaire and the direction of filling in the questionnaire and inform them that there is no 'right' or 'wrong' answers. After they fill in the questionnaire, they have to give it to the researcher directly. All personal information will be used in this research only and will not reveal to the others.

C) 說明任何利益 (包括對參與者的補償)

C) Potential benefits (including compensation for participation)

此研究沒有任何利益。

There is no potential benefits..

說明任何風險 (若無，請明確指出)

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The potential risks of the research (State explicitly if none)

此研究沒有潛在風險。

There is no potential risk.

貴校學生/教師的參與純屬自願性質。所有參加者皆享有充分的權利在研究開始前或後決定退出這項研究，更不會因此引致任何不良後果。凡有關 貴校學生/教師的資料將會保密，一切資料的編碼只有研究人員得悉。

Please understand that your students'/teachers' participation are voluntary. They have every right to withdraw from the study at any time without negative consequences. All information related to your students'/teachers' will remain confidential, and will be identifiable by codes known only to the researcher.

描述將如何發佈研究結果

Describe how results will be potentially disseminated

研究結果將會以壁報展覽及匯報。

The result will be presented by the board presentation.

如閣下想獲得更多有關這項研究的資料，請與陳皓宜聯絡，電話 或聯絡她/他們的導師謝采揚博士，電話

If you would like to obtain more information about this study, please contact Chan Hou Yee at telephone number or their supervisor Dr. Andy Tse at telephone number

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

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

謝謝閣下有興趣參與這項研究。

Thank you for your interest in participating in this study.

陳皓宜

Chan Hou Yee

首席研究員

Principal Investigator

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Appendix 3: Consent from (For Parents)

香港教育大學

<健康與體育學系>

THE EDUCATION UNIVERSITY OF HONG KONG
<Department of Health and Physical Education>

參與研究同意書

長跑對智力障礙學生的情緒控制之影響

CONSENT TO PARTICIPATE IN RESEARCH (FOR SCHOOL)

The influence of Long Distance Running to Emotional Control of children with Intellectual Disability

茲同意敝子弟_____參加由謝采揚博士負責監督，陳皓宜執行的研究項目。她/他們是香港教育大學健康與體育學系的學生/教員。

I _____ hereby consent to my child participating in the captioned research supervised by Dr. Andy Tse and conducted by Chan Hou Yee, who are staff / students of the Department of Health and Physical Education in The Education University of Hong Kong.

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

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

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

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

本人理解本人及敝子弟皆有權在研究過程中提出問題，並在任

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何時候決定退出研究，更不會因此而對研究工作產生的影響負有任何責任。

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

參加者姓名:

Name of participant: _____

參加者簽名:

Signature of participant: _____

父母姓名或監護人姓名:

Name of Parent or Guardian: _____

父母或監護人簽名:

Signature of Parent or Guardian: _____

日期:

Date: _____

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Appendix 4: Consent from (For Participant)

香港教育大學

<健康與體育學系>

THE EDUCATION UNIVERSITY OF HONG KONG
<Department of Health and Physical Education>

參與研究同意書

長跑對智力障礙學生的情緒控制之影響

CONSENT TO PARTICIPATE IN RESEARCH (FOR PARTICIPANT)
The influence of Long Distance Running to Emotional Control of children with Intellectual Disability

本人_____同意參加由謝采揚博士負責監督，陳皓宜執行的研究項目。她/他們是香港教育大學健康與體育學系的學生/教員。

I _____ hereby consent to participate in the captioned research supervised by Dr. Andy Tse and conducted by Chan Hou Yee, who are staff / students of the Department of Health and Physical Education in The Education University of Hong Kong.

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

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

本人理解我有權在研究過程中提出問題，並在任何時候決定退

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出研究，更不會因此而對研究工作產生的影響負有任何責任。
I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without negative consequences.

參加者姓名:

Name of participant: _____

參加者簽署:

Signature of participant: _____

日期:

Date: _____

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