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### **Useful Information from the Students with Visual Impairment in Hong Kong Mainstream Schools who Participated in Outdoor Learning Opportunities**

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# **USEFUL INFORMATION FROM THE STUDENTS WITH VISUAL IMPAIRMENT IN HONG KONG MAINSTREAM SCHOOLS WHO PARTICIPATED IN OUTDOOR LEARNING OPPORTUNITIES**

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All students in our schools, including those with disabilities, are entitled to participate in outdoor learning opportunities. Learning out of school is of great value because it is reality-based and motivating. However, previous research has found that students with visual impairment in mainstream Hong Kong secondary schools often encounter difficulties (and even exclusion) in learning activities conducted outdoors. The research reported here aimed to explore the reactions of students with visual impairment who participate in outdoor learning opportunities, and then to recommend solutions for overcoming any obstacles that they identified. A phenomenological inquiry approach was applied to examine data through the lived experiences of the students. Their perceptions of the experiences offered by their schools were also collected. Three key findings emerged. First, most of the mainstream schools do provide outdoor learning opportunities to all students, including those with visual impairment. Second, some students with visual impairment love to participate in outdoor learning because they can acquire more real-life knowledge, beyond what is found in the textbook; and they can also socialize with different people (e.g., the volunteers and the people in communities). Third, students with visual impairment perceive that they can play a more active role (e.g., as a leader) in outdoor activities to help them learn effectively.

Additional findings were: (a) public's non-inviting attitudes were perceived to be a difficulty the students encountered, (b) students with visual impairment tend to need more time to deal with homework and revision for examinations, and often reluctantly choose to withdraw from optional outdoor learning opportunities, and (c) there are insufficient provisions made for their outdoor learning and opportunities in community service. Implications of the findings for school policies and practices are discussed.

## **KEY WORDS**

Students with Visual Impairment, Outdoor Learning Opportunities, Inclusive Education

## **USEFUL INFORMATION FROM THE STUDENTS WITH VISUAL IMPAIRMENT IN HONG KONG MAINSTREAM SCHOOLS WHO PARTICIPATED IN OUTDOOR LEARNING OPPORTUNITIES**

### **INTRODUCTION**

Outdoor learning is not something new in the Hong Kong school curriculum. Since the curriculum reform in 2000 it has been strongly recommended that students should take part in a comprehensive range of learning activities both inside and outside the classroom (Education Commission, 2000). The strategy of ‘Life-wide Learning’ has been promoted, aiming to move student learning beyond the classroom into other contexts and settings (Curriculum Development Council, 2002). The curriculum guide clearly mentions that it is important to provide these opportunities for *all* students to develop their potential in different ways (Curriculum Development Council, 2002, p. 15).

Despite previous findings showing that learning outside the classroom contributes significantly to raising standards and improving students’ personal, social and emotional development (OFSTED, 2008), it was reported that the students with visual impairment (VI) encountered difficulties and even rejections in learning activities conducted outdoors (Yuen et al., 2012). ‘Rejection’ in this context refers to situations where VI students are excluded because it is believed they cannot benefit or are at risk of injury.

Obviously, students with VI may face obstacles to their full participation in certain activities outdoors (Holland, 2012). However, under the Hong Kong policy of integrated education introduced in 1997, more students with disabilities, including those with VI, are now attending mainstream schools. They are therefore entitled to participate fully in the whole curriculum along with other students, including outdoor learning opportunities on condition that the activities are safe and additional support is provided. It is important for teachers, school counselors, and administrators to be fully aware of the

obstacles that the students with VI in mainstream schools may encounter when they participate in outdoor learning opportunities. An awareness of these obstacles can pave the way to making modifications that will improve their learning and development. In turn, this will ensure greater success for the students concerned under the policy of integrated education.

At the moment, teachers' knowledge about the outdoor learning experiences of students with VI remains sparse in Hong Kong (Yuen et al., 2012). This study was therefore carried out to collect the necessary information needed to improve outdoor learning opportunities for these students. The study had two parts—an action project and a research study. The title of the action project was "Widening the horizon: Outdoor learning with visually impaired students." It was organized by the Mobile Schooling Project (MS) of the Chinese University of Hong Kong, sponsored by the Fortune Pharmacal Lai Yung Kwoon Charity Fund. The project aimed to encourage students with VI to participate in outdoor learning activities and community service. The Centre for Advancement in Inclusive and Special Education of the University of Hong Kong and the Hong Kong Blind Union were the co-organizers of this action project.

The research study component involved data collection from the project to provide useful information for supporting students with VI in nearly 460 local secondary schools. The findings will help prepare teachers and school personnel for implementing improved inclusive practices within the context of outdoor learning. The study aimed to provide information on all the obstacles that students with VI face when they attempt to engage in outdoor learning opportunities, and to suggest the types of support needed. The study has both academic and practical significance. The two objectives of the study were:

- (1) to explore the experiences and perceptions of students with visual impairment participating in outdoor learning opportunities in Hong Kong mainstream schools;
- (2) to recommend solutions for overcoming or minimizing the obstacles that the students with visual

impairment experience in outdoor learning opportunities.

## METHOD

The study applied a phenomenological inquiry approach, grounded in a qualitative constructive research paradigm to understand the authentic experience of a group of people. The strength of this approach is to examine phenomena through the live perspectives of those who have directly experienced events in a particular context. The constructive research approach enables multiple interpretations of reality and alternative interpretations of data (Creswell, 2007). The method was deemed highly appropriate to explore the live outdoor learning experience of the students with VI through their own lens.

## ACTION PROJECT

The overall theme of the project was "Outdoor learning opportunities in an inclusive environment." The project involved a varied group of approximately 60 participants, including 14 core workers (outdoor learning facilitators and specialists in supporting students with VI), 20 university volunteers, 8 students with VI, 18 and junior secondary students.

The training provided for different parties before the project implementation was believed a key to success. Twenty students from the two local universities were first recruited to take up duties. They were then trained to become knowledgeable helpers to work with students with VI. Eight students with VI in mainstream schools were then invited to join the project through the recommendation of the Hong Kong Blind Union. Seven out of eight students were in Grades 9 to 11, from different regions in the territory. All had experienced mainstream inclusive education for at least one year, and their degree of visual impairment ranged from partial sight to total blindness (moderate and severe low vision).

The students with VI were guided by the volunteers to walk along the Central Green Trail from the Hong Kong Park up to The Peak. The learning theme was "Development versus Conservation in the

context of Hong Kong history.” The volunteers told the stories of Hong Kong history during the slow walk along the trail with the students with VI. Once the VI students had participated in this learning experience, they were then required to conduct the same trip with a group of 18 younger able-bodied students as a community service. The university volunteers were the facilitators of the service. The content of the project is in Annex A.

## **RESEARCH STUDY**

### **PARTICIPANTS**

Data for the study were obtained through face-to-face interviews with the six participants with VI of the project. A brief personal background of each participant was obtained (Annex B). Fifty percent of the participants were male and 4 of them were totally blind. One had severe low vision and one had moderate low vision. Their ages ranged from 15 to 20. Invitations to the interview, together with consent letters to participate, were passed to their parents via the students. The student consent letter was accessible in Braille and in large print. Parents (or the project coordinators) read the contents to the student and the student indicated their agreements to participate in the study. The signed informed consent reply form was returned via the Hong Kong Blind Union. Face-to-face interviews were conducted at the Hong Kong Blind Union Centre by researchers at a time convenient to each participant. HK\$100 was provided as a transportation allowance to those who participated.

### **INSTRUMENT**

An orally administered questionnaire provided the structure for the interview used to collect information from each participant. The questionnaire with 12 questions was constructed by the research team (Annex C). Items were developed based on a literature review of educating school students with VI and the relevant adaptations that can be made for them. The items were then validated by a panel of

educators, and persons with VI. The questionnaire was piloted using two face-to-face interviews with two participants and no revision was required.

During the interviews, students were asked to describe all the obstacles they have encountered in outdoor learning opportunities, both in schools and in the project. Participants were also asked to suggest practical solutions that their schools and their teachers might use to reduce these obstacles. They were then invited to describe the strategies they had devised themselves for overcoming obstacles they had faced.

Audio-recording by an MP3 recording device was used during the interviews with the consent of each participant. This procedure helped the process because there was only one interviewer who needed to pay close attention to the conversation, rather than taking detailed notes. The recordings were then transcribed verbatim into Chinese transcripts, which were prepared by research assistants. To maintain confidentiality and protect privacy, pseudonyms were used and the audio-recordings were stored electronically in an office computer with encryption.

## **ANALYSIS**

After the interview, the first coding and categorizing exercises were carried out for each transcript manually. Words, phrases, or sentences that formed meaningful units in the transcript were highlighted. They were mainly the responses to the questions in the questionnaire and the first coding labels were formed. Later, after reading the transcripts several times, the preliminary coding labels were modified and extended to reflect higher-order attributes within the category level. The second coding gave more interpretations to the initial responses (Annex D). After a higher-level of categorization, broad themes emerging from the analysis were noted. They concluded the interpretations of the second coding. A university student who had participated in the action project was invited to review the transcripts and check the codes and categories. It can ensure the validity in a specific context because the second coder

was familiar with the behaviours and conversations as specific terms in the context of study. The inter-coder reliability was 95.1%. Finally, relevant phrases and sentences emerging from the coding process were then translated into English.

To enhance the validity of the study, strategies suggested by Merriam (1998) were applied. For example, the findings were shared with some of the participants for feedback, and critical friends from inside and outside the project were invited to comment on the emerging findings. Three information sharing sessions for the project and the research outcomes were conducted in 2016 (Annex E).

## FINDINGS

Six themes emerged from the analysis of transcripts, revealing how students with VI perceive the outdoor learning opportunities provided by their schools. The first three are positive to the future development of integrated education and outdoor learning; however, the other three provide impetus for change. Various solutions for overcoming or minimizing the obstacles were also revealed.

### ***Theme 1: Most mainstream schools provide outdoor learning opportunities for all students, including those with visual impairment***

The interviewer asked: "Other than the MS project, do you participate in any outdoor learning activities organized by your school?" Four of six participants (66.6%) said "yes." Their schools had provided these opportunities for them, and they felt that the opportunities were quite sufficient. However, Student D responded: "I do not have as many opportunities as they [other students without visual impairment] have." He explained: "The teachers do not allow me to participate because we [students with VI] would need help from others." One participant (Student B) even replied that the school did not provide such opportunities for her; and the teachers requested her to collect the information through the internet instead of joining any museum visit.

In some situations, students with VI were excluded from some outdoor learning activities because teachers were afraid that they could easily be hurt by unexpected events. This reflects a view that teachers may be unwilling to take risks in offering students with VI challenging activities. The teachers may also underestimate what students with VI can achieve. There may appear to be a common tendency for teachers to focus on what students with disabilities *cannot do*, rather than on what they can do (Rieser, 2011). Teachers may assume that students with VI cannot participate, but in fact students with VI have the same need for participation and challenges as other students—and they have the same potential to learn. They can be actively engaged if support is given when necessary.

**Theme 2: Students with visual impairment love to participate in outdoor learning because they can acquire more real-life knowledge, beyond what is found in the textbook; and they can socialize with different people.**

It is not surprising that students with VI love to participate in outdoor learning because it provides new experiences in the real world. Participants were asked to explain why they like to join in outdoor activities. Student A said: “I like it because I can get in touch with the nature.” However, several participants responded that they could learn more knowledge beyond the textbook and come along with different people. Student E said: “If I can feel and have experiences with something, I will have better impression and I can learn deeper.” Student F responded: “During the process of outdoor learning I can know more new things, no matter the places where I have or have never been.”

It was previously reported that social development is often a problem for the secondary school students with VI, partly due to a lack of opportunity at a younger age to mix and interact freely with other children (Westwood, 2009). They are “more vulnerable and more at risk of social isolation” (Palmer, 2013, p. 89). For coming along with different people, Student F agreed: “I can make friends with the one who leads me.” Student A said: “I can also make friends with different people and exchange ideas with

them. My eyesight is broadened.” Student D expressed that there was a sense of connectedness when he could come along with different people during activities: “I feel being involved and we are working together to deal with the situation and solve the problems.”

It can be concluded that outdoor learning experiences are greatly valued by students with VI, because they enhance awareness of the real world and provide an opportunity to socialize with other people. Learning outside the classroom can increase students’ connectedness with the people and the real world.

**Theme 3: Students with visual impairment perceive that they can play a more active role (e.g., as a leader) in outdoor learning to help them learn effectively.**

Having all students play an active role is always one of the objectives in outdoor learning (Education Bureau, 2016). To learn effectively outdoors, participants should take some responsibility for their own learning. In the action project, participants were invited to take a leadership role to act as tour guides for another group of secondary school students. It was a form of ‘community service’, which is also one of the components in the senior secondary school curriculum. Students are expected to take part in community service during their senior secondary years, and this is recorded in their student learning profile for their further development. However, according to previous research, most students with visual impairment encounter difficulties and even rejection when they offer to take part in community service (Yuen et al., 2012). This was why they were so impressed when they could have the chance to take up the leadership role as part of the action project. Student E recalled: “Before my participation, I did not expect that we can deliver what we have learned to others. Not only the help I offered, but also their sincerity impressed, inspired, and encouraged me.”

The VI students clearly expressed a view that the activity made a big difference compared to other activities organized by their schools. In this project they were active learners and also had to teach others. Student A shared what he thought: “If there are instructors, you will only listen to what they say.

However, in this MS project, when we arrive at the site, everyone can share and exchange what we know.” Student D said: “I appreciate that we can have practical role to take up during the activity and we will not be excluded.” It can be concluded that students with VI welcome the opportunity not only to engage in outdoor learning but are also eager to assume leadership roles when given the opportunity.

**Theme 4: Students with visual impairment tend to need more time to deal with their school work, and reluctantly often choose to withdraw from outdoor learning opportunities.**

Effective outdoor learning requires not only the time spent on the trip, but also the preparation before the trip and the debriefing session for consolidation after the trip. For a student who has a tight schedule for his or her school learning, it is quite time consuming. It is also relevant to note that VI students need to spend more time on reading, because reading in Braille or with a magnification aid is much slower than reading with print (Yuen et al., 2012). In the interviews the participants expressed a view that they would always need to put their greatest effort in preparing for public examinations in academic subjects, instead of engaging in extra-curricular trips or outdoor learning activities.

Student B explained: “Usually, I am quite busy and do not have time to do the preparation [for outside activities].” Student A added: “I am interested in the activities, but I need to check with my schedule if the date and time of the activity fits me. Sometimes, I do have a lot of homework.” It was also evident that some of the students choose to attend private tutorial classes after school, and this limits their available time out of school hours. Student D said: “I do not have enough time to take part in the activities, because I have to attend tutorial classes.”

**Theme 5: Some students with visual impairment perceive that there should be more facilitation for their outdoor learning and more opportunities for community service.**

When asked if the schools provided any special arrangements for outdoor learning activities for students with impaired vision, Student E replied: “No. The school will treat you the same as the students

without visual impairment.” Student F described what support he needed while learning outdoors: “When I need help I ask for assistance from my schoolmates. But the school will not make any special arrangement.” Student E frankly shared her experience: “If Typhoon Signal no.1, or any storm signal, is hoisted, the Blind Union will cancel or postpone outdoor activities—but my school will not rearrange like this.”

The participants reported difficulties in outdoor learning in an unfamiliar setting if they were not led effectively by the guide. If there was no narrative service provided by the guide, they did not gain important information and found difficulties in learning. When a female student was asked: “If there is an instructor or someone who can interpret, your learning motivation will be enhanced and you will be more engaged, and you can know more. Am I correct?” The student responded “yes”—adding that she needed such special arrangements while learning outdoors. Special arrangements may include one-to-one leading guide (or a ‘buddy’), a narrative service, or (during preparation or follow-up sessions) being helped to use the text file instead of the figure and picture file when searching online for information. It is only text files can be magnified, translated into Braille, and that allow font size to be increased to suit students with low vision (partial sight).

**Theme 6: One of the difficulties students with visual impairment do encounter is the non-inviting attitude of members of the public when approached for help.**

If you ask members of the public whether they think that students with VI need additional help because of their disability, most people would say “yes.” They understand that the students cannot see clearly and are at risk of hurting themselves easily or getting into trouble, particularly when they are in an unfamiliar environment. However, the students’ responses indicated that people around them when outdoors were usually not eager to give a hand. Student D stated: “In an unfamiliar environment, we do need the help from other people. But not all people would really want to help us in the activities.” Student

B (totally blind) shared a very embarrassing situation: “I have to stop people in the MTR station (Metro) if I need help. However, often they may not notice my request because I happen to stand behind them, or cannot look directly at them.” Some students with VI do not want to bother others, because they want to be independent. Student B commented: “If the people help you every time, you will never learn.”

The interviewer challenged Student B: “It seems that there is a contradiction here. On one hand, you said the people around you do not offer their help, but on the other hand you want to be independent.” She replied: “People may think that we are accustomed to working independently, so they choose not to offer their help.” She further explained: “Sometimes when we want to seek help for school assignments, or a matter of daily life, people try to go away from us. If the problems are too many, they may feel uneasy. So we may judge that the people around us are not so friendly, and we choose not to voice out our need for help.” This student said that she approached her classmates most frequently for help, but some of them (and the teachers too) had formed an opinion that they might be legally liable if anything happened—for example when helping her across traffic or getting on a bus, or even in PE lessons.

Student D made a comment about his mainstream classmates: “The quality of my schoolmates is not so good. Therefore, it is not practical for us to join some activities because we do need the help from them. Most often, schoolmates do not offer their help. When you ask for help, they really do not care.” He thought that the reason for this attitude was: “Not being aware of our needs. People with and without VI do have different life experiences. We may need someone who can share common experiences with us.” This finding suggests that the current level of mutual support between students with and without VI often seems to be insufficient (Hui, Sin, & Kong, 2006). It is clear that more work needs to be done to raise public awareness of the types of assistance that anyone can render to VI persons when necessary. This can also become a teaching point in the context of school classrooms (see below).

## DISCUSSION

According to the responses from the students in the interviews, it is possible to understand some of their social and emotional needs, which have long been overlooked in our school curriculum for inclusive education (Ravenscroft, 2009; Roe, 2008; Sacks, Lueck, Corn, & Erin, 2011). Participants with vision impairment expressed a view that they love to participate in outdoor learning because they can engage with different people. To achieve the Hong Kong schools' aim to ensure 'whole-person development,' learning must also go far beyond academic learning from textbooks and must address social and emotional learning. Responses from the participants with visual impairment indicate that they can engage very usefully in outdoor learning opportunities if provided with support. These experiences then help to strengthen their independence and give them greater confidence. Most importantly, engaging with others in such events contributes to an inclusive culture in the school.

Allen and Cowdery (2009, p. 170) have advised: "Children with vision problems require more time, more practice, more verbal mediation, and more encouragement from adults." In this study, students with VI who participated in outdoor learning activities clearly indicated the obstacles they face. These obstacles can be summarized as:

1. *Not all schools are not providing outdoor learning experiences for students with VI.* There appears to be a need for more input from the Education Bureau into schools to reinforce the importance of including students with impaired vision in *all* school activities (equal opportunity to participate).
2. *The negative attitude of teachers; and the reluctance of some schools to take any risks with students' safety.* The guarantee of a safe learning environment is a must. It requires greater attention to the safety of the outdoor environment for the students with VI (Rimmer, 2006). However, it should not lead to over protection of VI students and their exclusion from some activities. Again, we may need to consider if officers of the Education Bureau have a responsibility to convince all school principals of

this fact. Another major obstacle to the full participation of students with VI in outdoor learning is the attitude of teachers. School principals should arrange more training for their teachers to build their capacity. It has been shown that teachers with more training and experiences in inclusive programmes tend to have more positive attitudes towards inclusion (Avramidis, Bayliss, & Burden, 2000).

*3. The time taken up by outdoor learning activities can sometimes represent lost study time for students with VI who often need more time to study.* This is a more difficult obstacle to overcome, but teachers could make special provision for students with VI to have extra time for finishing assignments, and might give additional personal support to VI student during private study times (e.g., after school hours).

*4. Sometimes there is too little interpretation and guidance provided specifically to VI students during off-campus visits and outdoor learning activities.* Effective facilitation is always necessary for outdoor learning. Being a facilitator for students with VI means having the ability to share and interpret the common experiences with them, and being able to describe things that cannot be seen. One of the participants highlighted that a facilitator needs to clearly illustrate the object or concept at hand; and this is not easy for some volunteer facilitators to do—the ability to ‘see’ things from the perspective of a person with low (or no) vision. For example, when the facilitator says the object ‘looks like a bowl’ how can he or she be certain the student with VI can understand? The student also needs to have the experience of touching the bowl-shaped object. The facilitator can play the role as an adult mentor with VI. A report by Bell (2012) disclosed that adult mentors, who were also visually impaired but had achieved academic and career success, could assist youth with VI to promote positive hope and career decision self-efficacy for the future.

*5. Lack of assistance from members of the general public when VI students need help when out in the community.* This problem is not confined to outdoor learning activities but also occurs in the

everyday life for people with VI. It is far from easy to change public attitudes toward disability; but change is gradually occurring; and inclusive education is now helping to form more positive attitudes in younger people. Public awareness can be increased through the medium of television—for example by frequently presenting programmes on the effects of vision impairment, and the situations in which persons with VI do and do not need help. On the other hand, we should also need to know students with VI are less likely to interact with peers (Palmer, 2013). In some cases, an individual with impaired vision may need to be taught, as a problem solving skill, to be more assertive when seeking assistance, and not be reluctant to ask for help (Fletcher, Shindell, Hindman, & Schaffrath, 1991).

*6. Classmates of students with VI in mainstream classes do not always offer help; and they seem to be unaware of the types of assistance to the students with VI.* Studies (e.g., Boer, Pijl, & Minnaert, 2012) revealed that students generally hold neutral attitudes towards peers with special educational needs. Their attitudes are partially influenced by their experience with and knowledge about people with difficulties. In this instance, some responsibility must be accepted by the teachers. Part of ‘whole-person development’ must include encouraging in all students an attitude of helpfulness to others and acceptance of differences. It is a teacher’s responsibility to set up a classroom system of ‘peer assistance’ and ‘paired learning’ so that it becomes the norm for students to help one another at all times.

It is also worth considering other ways to enhance learning for VI students. In the context of outdoor education activities, strategies for increasing the likelihood of success can be categorized into four types. These correspond with four stages of implementation: (i) proactive advertisement of the activity ahead of time, (ii) preparation before the activity, (iii) during the activity, and (iv) after the activity. These four phases to enhance the impact of an outdoor learning activity are similar to those in Kolb’s experiential model (Kolb, 1984).

*Activity advertisement:* Displaying a poster to advertise an outdoor activity or trip ahead of time is the most common practice in schools to inform participants. For example:

VISIT TO THE SCIENCE CENTRE. Please note that on Friday, 21 June, members of the school Science Club will be visiting the Science Museum with their teachers. Please meet at Causeway Bay MTR Station (Exit B2) at 9.00am. You will need to return your letter of consent from parents by 18 June.”

If this is the only practice used to notify students it would certainly restrict access of students with VI. They may not notice (or be able to read) the information. For these students, a handout in Braille or enlarged print is necessary (Rimmer, 2006). Also using digital platforms such as emails, Facebook, or WhatsApp to notify upcoming activities is strongly recommended, because most digital devices can transform the messages from text into voice.

*Before the activity.* A briefing session to introduce the site and the learning focus of the outdoor activity is crucial for preparation and effective learning in an authentic context (Kolb, 1984). Reading materials should be prepared for this purpose in mainstream schools. To facilitate the learning of students with VI, Braille or enlarged print text versions of the materials are necessary. Teachers should also be aware that students with VI cannot easily interpret pictures or photo figures, especially if these are not of high definition and contrast. Where photographs, diagrams, and tables of figures are necessary it may require a classmate or teacher aide to describe the layout.

*During the activity.* Students with VI may need assistance with getting to the gathering point to begin the activity or trip. It is strongly advised to gather at a convenient and easily assessable place, such as an MTR Station (Metro) with numbered exits or a bus terminal where the students with VI are confident to locate. During the learning trip, helpers are needed to accompany the students with VI (Rimmer, 2006), not only because of safety concerns but also to help interpret and describe the

environment (providing an ongoing narrative). This can help them imagine the context and form a mental image of the setting. It is often appropriate to encourage the use of other senses to explore the physical environment, such as hearing, smelling and touching.

*After the activity.* The debriefing session should seek to consolidate the learning experience by clarifying any misconceptions, reinforcing key concepts, and opening up possibilities for further investigation. The materials provided for individual reflection or group discussion should be friendly to students with VI, and again may need to include audio tapes, Braille notes and enlarged texts. During conversation with VI students we should beware that they may require additional verbal explanations of the experiences they have had before they can fully understand the concepts you share. Verbal explanation must compensate for lack of vision, and it is important to teach VI students any new vocabulary that relates to the outdoor activity.

## **CONCLUSION**

Students with impaired vision should not automatically be excluded from experiential and hands-on activities, simply because of their disability (Yuen et al., 2012). Safety consideration should not be an excuse for denying a student the right to participate. “If teachers ensure that common sense safety measures are in place at all times students with impaired vision should engage in the same range of experiences as their peers” (Yuen et al., 2012, p. 19). To facilitate inclusion, there is a need for teachers to develop a sensitive approach to meeting impairment-specific needs of the students with disabilities (Rieser, 2011). In other words, activities should be “tailor-made”, and adapted resources must be provided by the specialist teachers for the students with VI to accommodate their special learning needs. In addition, Priest (2000) advised that an extended core curriculum should be designed and entertained for the students with VI to ensure a responsible inclusion. We may need to consider referring to the activity-based intervention model (Tellevik & Elmerskog, 2013) to design and develop a holistic

curriculum, which includes activities, participation, and involvement in real life situations. At times, the learning channels used (e.g. hearing and touching) must always be made available to students with visual impairment. Outdoor learning opportunities can be considered an alternative to fulfil the four educational needs for the students with VI. The four needs (visual, audio, and tactile aesthetic quality; multi-sensory interactions; ludic and reflective scenarios; and Do-It-Yourself methods) proposed by Brulé and colleagues (2016) are believed to foster collaboration between VI students and the care givers that leads to cultural and social inclusion. Regarding the policy of integrated education, Leung and Yeung (2007) have warned:

Placing students with visual impairment in mainstream classrooms does not automatically guarantee success. The ultimate criterion is whether students are learning; and mainstreaming without adequate and competent support will inevitably lead to frustration for both teachers and their students. (p. 264)

Peer support is not new and has been proved its effectiveness in supporting inclusion (Carter et al., 2016). Encouraging peer support is a valuable strategy for helping the students with visual impairment cope with any unfamiliar environment. It is also important for social inclusion of all students. Teachers can do more to facilitate the social development of the students with VI by promoting peer support in outdoor learning opportunities. Although teachers cannot force the building of friendships, appropriate opportunities can help the students with VI who feel shy or are lacking confidence in interacting with classmates in the school setting. Poor mutual support and restricted social acceptance can lead to the psychosocial problems sometimes experienced by the students with VI (Hui et al., 2006). It is hoped that outdoor learning activities can be one important way to foster mutual respect and support between students with disabilities and those without such problems. Teachers should encourage and

facilitate the setting up of a peer support network, to help the students with VI take part in outdoor learning activities.

Teacher training should focus not only on developing teachers' knowledge and skills but also seek to develop attitudes that cause teachers to be more sensitive to the needs of the students with VI. The lack of preparation to address the practical challenges of inclusive education is certainly typical of teacher education in Hong Kong (Yuen et al., 2012). Both pre-service and in-service teacher development courses should raise teachers' awareness of the capabilities and potentials of the students with disabilities. The importance of school education and teacher education should be highlighted for providing all members of the school community, from students, maintenance staff to principal, with attitudes and skills that will enable students with disabilities to succeed in inclusive schools (Florian & Rouse, 2010). Both pre-service and in-service teacher development courses should raise teachers' awareness of the capabilities and potentials of the students with disabilities.

## LIMITATIONS

The small sample size is an obvious limitation of the study reported here. However, we should be cautious that the aim of this study is not to generalize to a wider population than students with VI in Hong Kong schools. An investigation with a larger sample might uncover other obstacles to participation in outdoor activities, as experienced by VI students.

It would have been useful also to define more precisely the term 'outdoor learning'. In this study it embraced everything from visits to museums to hiking on walking trails. Outdoor learning embraces many situations, ranging from school camps, educational visits, and curriculum field-work. Future studies might focus more deeply on one type of off-campus learning activity at a time, in order to identify the specific obstacles encountered in that type of activity.

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## Annex A

### The Details of the Action Project

Date	Activity	Trainers / Tour guides
30 April 2014	Training volunteers	Members of the Blind Union
1 May 2014	Training volunteers	Members of the Blind Union
6 May 2014	Training volunteers	Members of the Blind Union
7 July 2014	Briefing session before the trip	University Volunteers
13 July 2014	The 1 <sup>st</sup> outdoor learning trip	University Volunteers
25 August 2014	Debriefing session after the trip	University Volunteers

14 September 2014	The 2 <sup>nd</sup> outdoor learning trip (Postponed due to the Typhoon)	
Umbrella Movement around the field trip area		
4 January 2015	Pre-trip	University Volunteers
25 January 2015	The 2 <sup>nd</sup> outdoor learning trip (The Community Service)	Students with Visual Impairment

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## Annex B

### Brief Information on Participants

Students	Gender	Grade	Levels of Vision
A	F	11	Severe Low
B	F	9	Total Blindness
C	M	11	Total Blindness
D	M	--	Total Blindness
E	F	9	Moderate Low
F	M	10	Total Blindness
G (Quit)			
H(Quit)			

## Annex C

**The University of Hong Kong Faculty of Education  
Centre for Advancement in Inclusive and Special Education  
& Hong Kong Blind Union**

Collaborative Research Study

**Perceptions of Students with Visual Impairment in Hong Kong Mainstream Schools who  
Participated in Outdoor Learning Opportunities**

### **Interview Guide**

[Note: The text below is a translation. The questionnaire will be presented in Chinese. It will be read aloud to any participant whose vision is seriously impaired].

February 2015

Dear Students,

When you answer these questions you are providing us with information that will help us better understand your perception of participating in outdoor learning opportunities, which could be organized by your school or other organizations, for instance, the Mobile Schooling Project that your participated in the past few months.

For each question we will ask you, there is no right or wrong answer. Please answer by giving your own views and experiences. You may also be able to suggest to us things your teachers could do that would make it easier for you to participate in the outdoor learning opportunities, or the useful strategies that helped you overcome the obstacles in outdoor learning opportunities.

Participation in this study is entirely voluntary. You may stop at any time without penalty. No record will be taken for non-completing participants. You will not be identified personally in any

report or document that summarizes our findings later. The interview will be recorded with an audio-recording devise. Any participant may request to review that recording later and erase any section in the recording. The research assistant will take notes. All information obtained will be used only for research purpose. Regarding participants who do not want to be audio-recorded, the researchers will ensure no audio-record be made of the interview.

The interview will take about 30 minutes. An allowance of HKD100 will be provided to all participants of the interview. You may withdraw from the interview at any time. For further information, please feel free to contact our research coordinator, Ms. Cheung through her email ([caise@hku.hk](mailto:caise@hku.hk)) or phone (tel. 2241 5828).

Thank you very much for participating in this research study.

Yours sincerely,

Dr. Chung Yiu-bun

Principal Investigator

### **Interview questions**

1. Your gender: (1) Female (2) Male
2. Your Grade: (1) S.4 (2) S.5 (3) S.6
3. Your Visual Status: (1) Total blindness (2) Severe low vision (3) Moderate low vision (4) Mild low vision
4. In the past school year, did you participate in any outdoor learning activities organized by your school or other organizations (Except the Mobile Schooling Project)?
  - (1) Yes
  - (2) No
5. If No, what were the reasons? Are you not interested in learning outdoors?
6. If Yes, please say something about the activities, in terms of the types and the contents.

Types: Moral and Civic Education, Community Service, Career-related experiences, Aesthetic Development, Physical Development

Activities	Types	Contents

7. Did you experience any difficulties in participating in these activities? (1) Yes (2) No.

If yes, please describe the difficulties:

8. How have you overcome the difficulties / obstacles?
9. How have the others helped you overcome the difficulties / obstacles?
10. Please give three practical suggestions to schools and teachers for supporting you better in participating in outdoor learning activities.
11. Please share what you have benefited from the Mobile Schooling Project (MSP)?
12. What were the shortcomings of the MSP for the students with visual impairment? Please give practical suggestions to improve the project.

Thank you for your collaboration and participation in this study.

香港大學 教育學院

融合與特殊教育研究發展中心

與

香港失明人協進會

合作研究計劃

在主流中學就讀的視障學童就參與戶外學習機會的觀感

### 訪談指引

[注意：問卷會以中文顯示，文稿會朗讀給視障參與者聽。]

親愛的同學：

當你回答以下問題時，你所提供的資料有助我們了解你對參與戶外學習機會的觀感，戶外學習機會可能由你就讀的學校提供，或由其他組織或機構提供，包括過去幾個月你參與過的流動學校計劃。

訪問員所問你的問題，是沒有所謂對與錯的答案，請憑你的看法以及個人經驗提供答案；你亦可以就校方如何協助你參與戶外學習提出建議，或就你個人經驗克服戶外學習困難的一些方法或策略。

參與這次研究計劃是完全自願的，你可以在任何時間要求停止而不會有任何懲罰性的後果；未成功完成訪問的參與者，我們不會作任何記錄；你的個人身份絕對保密，並不會在任何報告或

文件中被確認出來。整個過程將會錄音以作紀錄。參與者有權要求檢閱及刪除錄音。研究人員將會筆錄內容。所有搜集得來的資料只供研究之用。對於不希望被錄音的參與者，研究人員會確保他的談話內容將不會被錄音。

訪談需時約三十分鐘，參與訪談者將獲得港幣一百元的津貼。在訪談中，你可以隨時退出參與。若想取得更多資料，可與我們的研究聯絡員張小姐聯絡（電郵：[caise@hku.hk](mailto:caise@hku.hk) 或電話：2241 5828）。

非常多謝你參與這次研究計畫。

鍾耀斌博士上

計劃統籌

二〇一五年二月

面談問題

1. 你的性別: (1) 女 (2) 男
  2. 你的年級: (1) S.4 (2) S.5 (3) S.6
  3. 你的視力狀況: (1) 完全失明 (2) 嚴重低視力 (3) 中度低視力 (4) 輕度低視力
  4. 在過去一學年, 你曾參與過由學校或其他機構舉行的戶外學習嗎 (除了流動學校)?  
(1) 有 (2) 沒有
  5. 若沒有參與過, 你認為主要的原因是什麼? 是你對戶外學習沒有興趣嗎?  
(1) 有興趣 (2) 沒有興趣

6. 若有參與過, 請簡述有關範疇及內容

範疇包括: 德育及公民教育, 社會服務, 與工作有關的經驗, 藝術發展, 體育發展

活動	範疇	大致內容

7. 在參與這些戶外學習的過程中, 你有沒有遇過困難呢? (1) 有; (2) 沒有

若有, 你遇到最

通常的困難是什麼?

8. 你試過如何把這些困難克服呢?

9. 其他人又曾怎樣幫過你去解決這些困難呢?

10. 請向學校和老師提出三個可行的建議, 以幫助你克服戶外學習所出現的困難/障礙。

11. 請分享你對流動學校經歷中的最大得着。

12. 請分享你認為流動學校經歷中對視障同學有什麼不足的地方。請提出可行的建議作改進。

多謝你在這次研究的合作和參與!

## Annex D

Coding Table

1 <sup>st</sup> Coding	2 <sup>nd</sup> Coding	Interpretations
Y		The school provides outdoor learning opportunities to the students.
	Y-L	The opportunities are less when comparing with other students.
N	Y-N	The school does not provide any special arrangement.
		The school does not provide outdoor learning opportunities to the students.
L	N-R	The reason of no opportunity provided. Love to take part in the outdoor learning activities.
	L-K	Because I can learn more knowledge.
	L-B	Because I can broaden the eyesight.
	L-P	Because I like to meet and learn from different people.
	L-R	Because I like the exchange of learning roles.
T		Time consideration when participating in the outdoor learning activities, whereas study is always the first priority.
D		Difficulties
	D-F	Difficulties of seeing figures or physical world
	D-H	Difficulties when looking for help (including people non-inviting attitudes).
Learn		Can learn
	Learn-	Can learn the things beyond the textbook.
T		
	Learn-	Can learn because of taking up the leadership role.
L		
I		Things which are most impressed.
	I-K	Most impressed because of the knowledge enhanced.
D-A/P		The difference between the project and other outdoor opportunities (Active vs Passive).
Good		Felt good to the project.
Suggest		Suggestions to the project.

## Annex E

### Sharing Sessions about the Project and Research Outcomes

Date	Sharing Sessions	Organizers
21 May 2016	Congregation of the Mobile School Project 2015 - 2016	Mobile Schooling Limited
18 July 2016	Summer Workshop on Disability Rights and Equality	HKU School of Professional and Continuing Education (HKUSPACE)
2 November 2016	Supporting individuals with learning diversity: A WIN-WIN Formula	Equal Opportunity Unit, The University of Hong Kong