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Research Title: Research project on swimming in HK for people with mental, intellectual and physical disabilities

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Table of content

Summary	Page 4
Chapter 1: Introduction	Page 7
1.1 Background information	Page 7
1.2 My Role	Page 8
Chapter 2: Terms of reference and objectives	Page 9
2.1 Aim and Objectives	Page 9
2.2 Main Research Questions	Page 9
2.3 Term of reference	Page 10
2.3.1 PWD Population	Page 11
2.3.2 Sports and recreation policies for PWD	Page 15
2.3.3 Swimming pools in HK	Page 17
Chapter 3: Literature review	Page 18
3.1 Introduction	Page 18
3.2 Literature review on Hong Kong PWD participation in sport	Page 19
3.3 Sports development with disability in Hong Kong	Page 19
3.4 Reviews from Educational Perspective	Page 20
3.5 Cultural Transformation in PWDs	Page 21
3.6 Literature review on Swimming	Page 22
3.7 Barriers to sports participation	Page 25
Chapter 4: Methodology	Page 28
4.1 The role of worker as insider researcher	Page 28
4.2 Research approach	Page 29
4.2.1 Sampling description	Page 29
4.2.2 Phenomenology	Page 29
4.2.3 The advantage of qualitative interview	Page 30
4.2.4 The process of conducting interview	Page 31
4.2.5 Survey questionnaire	Page 31
4.2.6 Questions design	Page 31
4.2.7 Case study	Page 32

	4.2.8 The process of internet search	Page 33
4.3	Ethical Consideration	Page 33
4.4	Content analysis	Page 34
Chapter 5: Proje	ect findings	Page 35
5.1	Introduction	Page 35
5.2 3	Survey questionnaire with parents	Page 35
5.3	Mail survey on special school	Page 44
5.4	Interview with parents and coaches	Page 47
	5.4.1 The impression and motivators of participation in swimming	Page 47
	5.4.2 Public attitude towards disabled athletes	Page 50
	5.4.3 Sport career development with athletes	Page 52
	5.4.4 The attitudes and experiences on coaching PWD	Page 52
	5.4.5 The challenges in coaching PWD	Page 53
	5.4.6 Barriers participation in sports/ swimming	Page 55
	5.4.7 Parent's expectation	Page 58
Chapter 6: Conc	lusions and recommendations	Page 60
	6.1 Conclusions	Page 60
	6.2 Recommendations	Page 61
	6.3 Reflections on work based project	Page 62
Glossary		Page 64
Reference		Page 66
Appendix (resear	rch instruments)	
Appendix 1	Ethics release form signatories sheet	Page 68
Appendix 2	Questionnaires (for parents)	Page 70
Appendix 3	Questionnaires (for Special School)	Page 78
Appendix 4	Interview questions (for Coaches)	Page 80
Appendix 5	Informed consent form	Page 82
Appendix 6	Letter for special school	Page 83

Summary

This research is to explore and analysis certain contemporary social concerns and problems related to people who have intellectual, mental and physical disabilities (PWD) in participating swimming activities including disability sport policy, historical, and cultural development and movement; participation behavior, experiences and attitudes; level of participation; motivations and barriers to participation; benefit of participation; access to sport programs and facilities; and recommendation and suggestion from respondents. All respondents have provided a very valuable insight of how their involvement when they begin and develop in the sport; some of the challenges and problems they have faced, and the findings show that their expectations and needs. My role throughout this project is an insider researcher, and at the same time, plays a major role in the research process. Research projects adopt a combination of methods to achieve specific ends which involved:

- Phenomenology;
- Case study; and
- Survey questionnaire.

Data Collection

- Case study on relevant document and review literature;
- Survey with parents through face to face delivery;
- interview coaches and parents in public swimming pool and sports centre;
 and
- Survey with Special School by e-mail and letter;

Limitation

• Only 22 out of 60 of the Aided Special School in Hong Kong responses to this survey; which shows that many of the organizations is with a fairly low willingness in participation in this study

Target audiences

- PWD and their family who participate or willing to taking part in sports or swimming activity;
- School teachers, coaches, sports administrators and volunteers; and
- Service providers or facilities providers who organize sports or swimming services to PWD.

The key words of this research project

- 1) Swimming
- 2) Disability sport
- 3) Coaching swim

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Chapter 1: Introduction

1.1 Background information

Leisure and recreational activities facilitate the learning and acquisition of social skills and competence, and are essential components for an effective programme of social integration¹. Mental, physical and intellectual disabilities (PWD) have greater health needs than the rest of the population. People with or without disabilities have the same needs to promote their health and physical well-being. Both able-bodied and PWD shares the same desire for the outcomes of physical activities. These outcomes include willingness to meet new friends, having opportunities for social interaction, and be a functional participant in a recreation activity (Smith, Austin and Kennedy 2001).

Hong Kong government is committed to provide services and facilities for social, recreational and sporting programmes and through these means to enable people with disabilities to make meaningful use of their leisure time, to develop their potential and positive personal values, to enhance family and other personal relationships and to encourage their active participation in community life¹.

Today, swimming is very high on the list of popular activities available to PWD. There are more organizations, special schools and parents who are greatly interested in holding or participating swimming programs in Hong Kong. Despite there are advantages for developing sports and recreation (swimming) program to PWD, yet, there are many factors which lead to difficulties of implementing sports and recreation programs. These factors include:

Internal barriers:

The disadvantageous position in which PWD are placed may cause them some of the intensity of physical, mental, or emotional problems, or a combination of such problems. They may have difficulties in language development, lack communication and social skills, low fitness level, lack muscular control, balance problems, lack of emotional control including low self-esteem, lack of self-confidence, fear of changes in environment, apathy, over dependence on others, low level of aspiration, anxiety and frustration. All these problems may directly result in difficulty to cope with ordinary school routine; limit their ability in exploring and understanding the environment; and barriers as participation in sport or recreation programs, which may in turn affect their personal and social development.

External barriers:

- Coaches or service providers lack of knowledge and skill to plan or teach PWD;
- There is a shortage of proper sports facilities and equipment for PWD and no defined strategy for matching the development of sports facilities.
- Hong Kong media does little to promote sports for PWD;
- Participants or parents lack faith in coaches whose experience in dealing with PWD
 / their children is deemed insufficient;
- Despite much work done by various organizations to encourage PWD to take part in and develop an interest in sport, there is no single body coordinating the development of sporting opportunities for PWD;
- Lack of a clear central authority responsible for overall policy, planning, coordination and monitoring of sports development.

Based on the above possible effects of them, their education/ recreation (swimming) programmes must be so designed as to help them overcome their needs and associated difficulties.

1.2 My role

I am a self- employed swimming coach who works in HKSAM, Community-based rehabilitation (CBR) and swimming clubs. The major tasks are providing services to train athletes and select the potential athletes to participate swimming competition. From these experiences, I suppose being a sport coach is not just about having excellent sports-specific and technical knowledge, but also needs to develop an administration and marketing skill to learn how to plan, operate, perform, manage, and audit the swimming program. Moreover, it is important to understand all stakeholders' needs, their participation behaviour, attitudes and expectation in order to satisfy their needs and promote the sport and its value to them. However, I will need to increase my competitive advantages in the swimming industry. It is necessary to create a professional image to all people. When I teach people swimming or present a swimming program to NGO, I am responsible to explain what benefits can be gained from participation in swimming to each client. Furthermore, I believe that the research is a strategic tool to equip my own knowledge and skill with an in-depth understanding of sport and its industry which in return and improve my knowledge and professional status. In additions, the research is a strategy for me to gain useful information about market trends and segment I can know that which organizations (e.g. special school) have provide swimming program or which is not. It is a good ways to develop cooperate opportunity to them.

Chapter 2: Terms of reference and objectives

2.1 Aim and Objectives

This research is to explore and analysis certain contemporary social concerns and problems related to people who have intellectual, mental and physical disabilities (PWD) in participating swimming activities. The project is mainly focused on issues related to parents, coaches, Special School, National Governmental Organisations (NGOs) and PWD related persons of all kind.

The aim of this research proposal:

- To demonstrate and discuss the conditions of swimming industry as well as the benefit and value of swimming program for persons with intellectual, mental and physical disabilities.
- To identify the motivations for persons with disability joining swimming activities and the benefits gained from their participation.
- Indicate the problems and challenges for holding a swimming program for PWD as well as surrounding people of PWD.
- To understand the structure and function of community and organizations to develop and organize swimming courses to persons with intellectual, mental and physical disabilities.

2.2 Main Research Questions

The aims of the research will be to investigate the following research questions:

- 1) What achievements can be made from swimming activity?
- 2) What are the motivations for people participate in swimming activity?
- 3) What are factors that may affect people to participate in swimming activity?
- 4) How do people look for swimming courses or instructors for private swimming lessons?
- 5) What do people think facilities of public swimming pools are suitable/sufficient for PWD?
- 6) What are the major challenges in holding or teaching swimming class?
- 7) What make a swimming class successful?

2.3 Term of reference

At the World Health Assembly held on 22 May 2001, World Health Organization (WHO) Member State endorsed a set of new classification of disability entitled International Classification of Functioning, Disability and Health (ICF). It classifies functioning, disability and health related components from the perspective of the body, the individuals and the society in two basic lists: (1) Body functions and Structures; and (2) Activities and Participation. Disability is an umbrella term for impairments, activity limitations and participation restrictions, the classification of disability under the Hong Kong Rehabilitation Programme Plan (RPP) generally follows the first list.

According to Hong Kong Review of Rehabilitation Programme Plan (2008) by the Rehabilitation Division, Health and Welfare Branch of the Hong Kong Government Secretariat, the guiding document on development of local rehabilitation provision, the following night categories of disability:

- 1) Autism;
- 2) Hearing impairment;
- 3) Mental handicap;
- 4) Mental illness;
- 5) Physical disability;
- 6) Speech impairment;
- 7) Visceral disability;
- 8) Visual impairment; and
- 9) Attention Deficit / Hyperactivity Disorder (AD/HD)

The distinction between impairment, disability and handicap under the definitions adopted by the World Health Organization is re-produced below for easy reference of readers:

- a) <u>Impairment</u> any loss or abnormality of psychological, physiological, or anatomical structure or function.
- b) <u>Disability</u> any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.

c) <u>Handicap</u> - a disadvantage for a given individual, resulting from an impairment or disability, that limits or prevents the fulfilment of a role that is normal, depending on age, sex, social and cultural factors, for that individual.

2.3.1 PWD Population

According to the "Special Topics Report No. 48: Persons with Disabilities and Chronic Illness" published by the Census and Statistics Department in 2009, there were 438,300 persons with disabilities and 1,152,700 persons with chronic illness, representing 6.3% and 16.7% of the total population of Hong Kong (6,940,000). The estimated populations of different disability groups were: 187,800 persons with physical handicap, 122,600 persons with visual impairment, 92,200 persons with hearing impairment, 28,400 persons with speech impairment, 86,600 persons with mental illness / mood disorder, 3,800 persons with autism, 67 000-87 000 persons with mental handicap, 9,900 persons with specific learning difficulties and 5,500 persons with attention deficit / hyperactivity disorder. (As the household survey was conducted on a voluntary reporting basis, it was believed that the populations of persons with mental handicap, persons with mental illness and persons with autism were inevitably underestimated. (*Table 1*)

Persons with disabilities had similar distribution as that of the total population. Some 25.7% of persons with disabilities lived in New Territories West, 25.4% in Kowloon East, and 21.1% in Hong Kong Island. The corresponding percentages for the total population were 28.7%, 20.0% and 18.6% respectively (*Table 2*).

The majority of students with intellectual disability (ID) in Hong Kong are studying in special schools and there are 60 Aided Special Schools (table 3). Besides, some are in Vocational Training Council Skill Centres, and some in ordinary schools provided with special education services by the Education Bureau. According to the administrative records of relevant parties, some 6 500 persons with ID were studying in those institutes at the time of the survey.

Table 1. Persons with disabilities by selected type of disability and with single disability/multiple disabilities

Type of disability	With single disability@	With multiple disabilities	Total no. of persons ('000)	As % of total population
	No. of	No. of		
	persons	persons*		
	('000')	('000')		
Restriction in body movement	92.7	95.1	187.8	2.7
	(49.3)	(50.7)	(100.0)	
Seeing difficulty	50.2	72.3	122.6	1.8
	(41.0)	(59.0)	(100.0)	
Hearing difficulty	37.4	54.8	92.2	1.3
	(40.5)	(59.5)	(100.0)	
Speech difficulty	2.8	25.6	28.4	0.4
	(9.9)	(90.1)	(100.0)	
Mental illness/mood disorder	48.1	38.5	86.6	1.3
	(55.6)	(44.4)	(100.0)	
Autism	1.4	2.3	3.8	0.1
	(38.1)	(61.9)	(100.0)	
Specific Learning Difficulties	4.4	5.5	9.9	0.1
	(44.5)	(55.5)	(100.0)	
Attention Deficit/Hyperactivity Disorder	1.9	3.6	5.5	0.1
	(34.8)	(65.2)	(100.0)	
All persons with disabilities	238.9	122.4	361.3	5.2
(excluding persons with	(66.1)	(33.9)	(100.0)	
intellectual disability#)				

Notes: @ Including persons with single disability and having chronic diseases at the same time.

Figures in brackets represent the percentages in respect of all persons with the respective types of disability.

[#] The estimates pertaining to persons with intellectual disability are excluded from the main analysis presented in this report as they are considered to be subject to under-estimation in the survey. A crude statistical assessment shows that the total number of persons with intellectual disability in Hong Kong might be in the region of 67 000-87 000.

^{*} Persons with more than one selected type of disability were counted in the respective types of disability and hence the overall number of persons with disabilities is smaller than the sum of the number of persons with individual types of disability.

Table 2a. Persons with disabilities by area of residence and selected type of disability

All persons with disabilities	`	g Kong and (1)		oon East		oon West		erritories st (4)		erritories est (5)	Total
(excluding persons with intellectual disability)*	No. of persons ('000)	Percentage %	No. of persons ('000) 51.3	Percentage %	No. of persons ('000)	Percentage %	No. of persons ('000)	Percentage %	No. of persons ('000)	Percentage %	No. of persons ('000)
Physical disability											
Visual impairment	27.7	22.6	34.3	28.0	10.6	8.7	19.0	15.5	31.0	25.3	122.6
Hearing impairment	20.6	22.4	26.1	28.3	8.7	9.4	15.8	17.1	21.0	22.8	92.2
Speech impairment	5.6	19.7	8.0	28.2	1.5	5.4	5.7	20.0	7.6	26.8	28.4
Mental illness	18.0	20.8	19.9	23.0	8.7	10.0	13.7	15.8	26.3	30.4	86.6
Autism	1.0	27.4	0.9	22.7	0.3	8.9	0.6	16.3	0.9	24.7	3.8
Attention Deficit/ Hyperactivity Disorder	1.0	18.7	1.3	24.2	0.5	8.6	1.0	18.2	1.7	30.3	5.5

Table 2b. Persons with intellectual disability residing in households by area of residence

Area of residence	Persons with inte	Total population		
	No. of persons	Percentage %	70	
Hong Kong Island (1)	3 400	14.8	18.6	
Kowloon East (2)	5 400	23.5	20.0	
Kowloon West (3)	2 500	10.8	9.5	
New Territories East (4)	5 300	22.8	23.2	
New Territories West (5)	6 500	28.1	28.7	
Total	23 200	100.0	100.0	

Notes: * A person might have more than one selected type of disability and hence the overall number of persons with disabilities is smaller than the sum of the number of persons with individual types of disability.

- (1) Hong Kong Island includes Central and Western, Wan Chai, Eastern and Southern District Council districts.
- (2) Kowloon Island includes Kwun Tong, Wong Tai Sin and Kowloon City District Council districts.
- (3) Kowloon West includes Yau Tsim Mong and Sham Shui Po District Council districts.
- (4) New Territories East includes Sha Tin, sai Kung, Tai Po and North District Council districts.
- (5) New Territories West includes kwai tsing, Tsuen Wan, Tuen Mun, Yuen Long and Islands District Council districts.

Figures in the table 2b are provided for crude reference only and should be interpreted with caution, as they are subject to certain assumptions (e.g. some 7 800 of those 31 000 registrants with intellectual disability in the Central Registry for Rehabilitation were institutional residents) and limitations (e.g. the existence of certain degree of under-estimation).

Source by: Special Topics Report No. 48: Persons with Disabilities and Chronic Illness" published by the Census and Statistics Department in 2009

Table 3. The 60 Aided Special Schools in Hong Kong:

Category	No. of Schools (as at	No. of Schools with a
	September 2008)	Residential Section
School for Children with Visual Impairment	2	2
School for Children with Hearing Impairment	2	1
School for Children with Physical Disability	7	2
School for Social Development (for maladjusted children)	7	6*
School for children with Intellectual Disability	41	14
Hospital School	1#	-
Total:	60	25

Note: * Residential sections of schools are subvented by the Social Welfare Department

One hospital school operating classes at 18 hospitals

2.3.2 Sports and recreation policies for PWD

The role of government

The government is committed to promoting the development of sports, arts and recreational activities. To develop the potentials and positive personal values of people with disability (PWD), to enhance family and other personal relationships and to encourage their active participation in community life, the Health, Welfare and Food Bureau (HWFB), Leisure and Cultural Services Department (LCSD) and Social Welfare Department (SWD) provide resources and services to support PWD in the training and development of recreational, sport and cultural activities. The Architectural Services Department, which is responsible for the design and construction of venues for the LCSD, constructs accesses and facilities suitable for PWD in accordance with the Design Manual prepared by the Buildings Department to facilitate PWD access to all buildings, facilities and services².

In 2005/06, about 990 activities specially designed for PWD are organized free of charge for about 60000 participants. About 80% of these activities include persons with hearing impairment, mental handicap, visual impairment, physical handicap, autism or chronic diseases. In 2005/06, 400 subvented activities will be organized for 14000 PWD. The LCSD is also committed to providing barrier-free recreation and sports facilities and services for PWD. To encourage PWD to make active use of these recreation and sports facilities, they and their accompanying carers are entitled to concessionary half rates when booking LCSD facilities².

To encourage PWD to do exercise safely, the LCSD and the Department of Health have been jointly running the "Healthy Exercise-for-All Campaign since 2000. The campaign includes a set of "fitness exercises" specially designed for PWD².

Hong Kong Paralympians Fund

The fund aims to foster the development of sports for people with disabilities and to support athletes with disabilities in their pursuit of sporting excellence in international events by providing financial assistance to them in all stages of their sporting career. Set up with a \$50 million grant from the General Revenue, the Hong Kong Paralympians Fund is managed by a management Committee comprising mainly non-offical members from the sports and rehabilitation fields, with the assistance of a Grants Sub-committee in processing funding applications.

The Fund has supported the sports associations in development of target sports and funded over 100 athletes with disabilities in their training for international competitions. From 2002 to March 2005, a total of \$2.004 million was granted to Sports Aid for Disabled Fund to meet its deficit, while another sum of \$2.820 million was provided to the Hong Kong Sports Association for the mentally Handicapped and Hong Kong Paralympic Committee & Sports Association for the physically Disabled

to support their development of five target sports. These sports include boccia, swimming, table-tennis, track&field and judo. Furthermore, subsistence grants amounting to \$3.105 million were provided to athletes in the period, to support them in pursuit of their sporting challenges¹.

The role of HKSDB

The Hong Kong Sports Development Board (HKSDB) is a statutory body responsible for the promotion and development of sport and physical recreation in Hong Kong. LCSD and HKSDB provides annual financial assistance to relevant sports associations serving PWD, namely: the Hong Kong Sports Association for Physically Disabled (HKSAP), the Hong Kong Sports Association for the Mentally Handicapped (HKSAM) and the Hong Kong Sports Association of the Deaf (HKSAD), to conduct various recreational and sports activities. HKSDB also administers the Sports Aid for the Disabled Fund which provides annual grant to elite disabled athletes to assist them in preparing for competitions¹.

The role of three associations

HKSAM, HKSAP, HKSAD are successful sport organizations which have a good policy, management system and mission to develop and promote specific sport and competition with PWD. These three associations also spend a considerable proportion of their resources on training young athletes. Both HKSAP and HKSAM play the major role of "National Sports Association" in organizing the SAR's representation in international competitions for disabled athletes. Additionally, HKSAM's programme is recognized as a continuation of the special school sports programme. Promising young athletes from member schools, as well as from other sectors of community are recruited to join the association's training courses. Trainees with good potential are selected for enhanced coaching and may eventually become members of the representative squad¹.

2.3.3 Swimming pools in HK

The registration number of Swimming Pool

In accordance with the Swimming Pools Regulation, Cap. 132CA, the operation of a private swimming pool requires a license granted by the Director of Food and Environmental Hygiene. According to "Environmental Statistics" by Food and Environmental Hygiene Department Public Website show that there are 924 swimming pools have registration licence in Hong Kong.

LCSD public swimming pools

The Leisure and Cultural Services Department manages a total of 37 public swimming pool complexes in Hong Kong, of which 7 are on Hong Kong Island, 12 in Kowloon and 18 in the New Territories. Of the 37 swimming pools operated by the LCSD, 16 have heated pools.

Attendances at the swimming pools

Swimming is popular in Hong Kong. In 2007-08, the number of attendances at the LCSD swimming pools was 9.1 million. LCSD records indicated that in 2007, during peak periods, 95% of the swimming lanes were used but, during non-peak periods, only 58% were used.

The booking procedure for use of public swimming pools

According to LCSD booking of swimming pool policy, LCSD lease out part of the 50-metre pools in its pool complexes to priority users such as the Hong Kong Amateur Swimming Association and its affiliates, Hong Kong Life Society and its affiliates, HKSAM, HKSAP and HKSAD for conducting training activities or examinations.

Kowloon Park Swimming Pool

Kowloon Park Swimming Pool is unique designated for the use of persons with disabilities, senior citizens and those suffering from chronic diseases on Sunday, Monday and Wednesday. The pool is suitable people with disabilities to swim in order to attract many people to there and learn to swim. The indoor training pool at level 2 is equipped with air heaters, pool lift and an access ramp both for persons with disabilities. And the pool provides one swimming line for people who are Visual impairment.

Chapter 3: Literature review

3.1 Introduction

The research has been use different methods to examine different data sources, there are included in academic literature review and reports from national sports organizations and other relevant agencies. The literature review has a crucial role in research. According to Marshall and Rossman (1995, p.28) 'a thoughtful and insightful discussion of the literature builds a logical framework for the research that sets it within a tradition of inquiry and a context of related studies'.

There are some areas I have been study through literature review and other similar researches, which includes:

- The characteristic of different types of disabilities;
- Educational Perspective;
- Rehabilitation policy and development movement;
- Sports for disabled;
- Sports culture and history;
- The value and benefit of swimming with disabled;
- Barriers to sports participation; and
- Research Approach.

The advantage of literature review

- The literature can help in the choice of a research method for the study;
- It provides a background and context for a study;
- It also help in understanding the social problem and its context;
- It can be used to supplement finding of interview and survey data; and
- It provides ideas and concept to design the questionnaires.

3.2 Literature review on Hong Kong PWD participation in sport

In a study of "Young people with disability in physical education / physical activity / sport in and out of schools" Dr. Claudine Sherill, President (2004, p.9) reported that:

".... Although related literature of Sit et al. indicated that SEN in Hong Kong were mostly sedentary, Sit et al. reported that most of her participants (who represented 10 special schools) participated in at least one sport during their free time (83%); in at least 2 sports (66%); in at least 3 sports (46%); and in more than 3 sports (33%). Location of participation varied significantly by disability..."

"Mental disability and visual impairment mostly used public playgrounds and parks rather than schools, private clubs, or organized lessons. School facilities were the second most popular location of sports."

The document also show that Hong Kong youth demonstrated lower physical activity and fitness levels than peers from Britain, Singapore, the U.S. and mainland China (Hong et al. 1998; Macfarlane 1997). Additionally, Bik Chow et.al (2005) indicated that girls with Intellectual disability were less physically fit than boys across age, which coincided with findings in youth without ID (Pate & Shephard 1989). Sit et al. (2002) found only 13% of Hong Kong youth with disabilities belonged to segregated sport clubs, and none were members of private or other integrated activity groups. In additions, youth with ID were more involved in segregated sport opportunities than those with other types of disabilities, but less active than peers with maladjustments or hearing impairments.

On the other hand, young PWD were more likely to participate in sport on a frequent basis in school than they were out of school. Young people in special schools were more likely to participate in sport than those in mainstream schools.

3.3 Sports development with disability in Hong Kong

According to Hong Kong Jockey Club public website (http://www.hkjc.com) news release on 14 July 2009: "Chairman of the Hong Kong Paralympic Committee & Sports Association for the Physically Disabled, Jenny Fung, commented that sports of all types were very beneficial and therapeutic to people with disabilities, but disabled sports generally attracted far less public attention and sponsorship than the popular professional sports."

In a study of 'The participation of the disabled in sport' Stewart Macpherson, Gina M, Sequeira (1996) reported by NGOs emphasize that the greater majority of athletic

instructors lack the knowledge and skill to train disabled persons in sport and there is a shortage of proper sports facilities and equipment for disabled; Hong Kong media does little to promote sports for disabled, lack of advertisements and promotional activities disabled persons are unaware of sporting activities; parents lack faith in coaches whose experience in dealing with disabled children is deemed insufficient.

In a study of 'A strategic policy for sports development' by Legislative council panel on home affairs meeting on 23 may 2002. LC <u>Paper No. CB (2) 1999/01-02 (01):</u> this report provide a basis for wider discussion in the community before a detailed strategic policy for sports development in Hong Kong over the next five to ten years is drawn up.

The report shows that there is still shortage of full- time coaching support for disabled athletes in Hong Kong. The majority of coaching outside the Hong Kong Institute (HKSI) is done on a temporary and unstructured basis. Coaching is often an uncertain and unsatisfactory career, and that many athletes do not have chance to work under the consistent guidance of a known and trusted professional. This has led to a shortage in Hong Kong of top-quality coaches with experience and expertise to prepare our athletes for high-level international competition.

In addition, there are still a number of problems faced by elite disabled athletes when using public facilities. For example: ancillary facilities at many public venues and swimming pool are inadequate for squad training, where venues have only one disabled toilet and shower unit in an entire complex; lack sufficient facilities for strength and conditioning, sports medicine treatment and other support services. However, some of the elite disable athletes are able to use the facilities at HKSI for training but there is also lack of purpose-built facilities for disabled sports at the institute. The physical condition of the institute's sports facilities has become so outdated that there has been an expressed demand for renovation and upgrading.

3.4 Reviews from Educational Perspective

With refer to Education Beau 'Guide to Curriculum for Physically Handicapped Children Chapter Three of this guide proposes that the aims of education for children with physical handicap are:

"Help them develop their potentials to the full, to be independent in their daily living and to adjust well in society. They encounter different degrees of challenge in mobility, physical health, sensori-oerception, concentration, intelligence, communication, emotion and social development which would affect their learning abilities. They need special education trained teachers as well as professionals from various disciplines to provide them with support in different aspects so that they receive a comprehensive and in depth service."

The role of physical education

In the rules for Public Law 94-142 (U.S. Office of education, 1977), physical education was defined as the development of (a) physical and motor fitness; (b) fundamental motor skills and patterns; and (c) skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports). The term includes special physical education, adapted physical education, movement education, and motor development.

According to Sherrill (1997), the core of adapted physical education should include the following: human development, human relationship and communication, theory of human rights and law, biomechanics, exercise physiology, basic science theory of motor control, basic mental and social theory of self-realization and self-concept, learning motivation and behavior management, measurement and evaluation of study programs, sports psychology, adaptability of adapted physical activity, sports and games, dances, water sports and various related activities, basic knowledge of creativity and individuality, the classification of various sports for the disabled and the adjustment and prototype of equipment, rehabilitation, physiotherapy, music therapy and other therapy methods.

3.5 Cultural Transformation in PWDs

Sport is a social institution, a "system of social relationships or a network of positions and roles embodying the values people hold in common" (Leonard, 1980, p.45).

There are various kinds of written documentaries describes the nature of sports, such as the literature review on "disability sport", DePauw Gavron (2005) highlights that:

"Sport as a social institution and a microcosm of society, sport has evolved and has unable to remain unaffected by political, social, and cultural changes. Sport will continue to be redefined by and in the new order of the world of the 21st century."

"Disability Sport has made its mark upon society. Individuals with disabilities have fought for inclusion in sport and have become recognized as athletes for their achievements and accomplishments in sport." Since the mid-20th century, attitudes toward athletes with disabilities have changed, barriers to inclusion have been lowered, and sport has become more accessible through legislative mandates. Although not complete, the trend is toward is toward progressive inclusion and acceptance (DePauw, 1986c; DePauw and Doll-Tepper, 2000). Well into the 21st century, sport opportunities for and including individuals with a disability will continue to increase."

DePauw Gavron (1995) found that the roots of "disability sport" have been record in the rich history of physical activity and human movement. Throughout the years, physical activity has taken many forms, including exercise, recreation, therapy, and sport.

According to international Sports Federation for People with an Intellectual Disability describes, "Sport is a crucial part of the live of world's population. It offers to PWD the same values. In addition, it is an invaluable means by which social, physical and psychological skills can be taught and learned. Sport is a major contributor to good health. It can transform the lives of PWD by giving a new stimulus, a feeling of success, self-worth, achievement and belonging."

3.6 Literature review on Swimming

Kay Latto (1981) indicated that swimming is very high on the list of popular activities available to mentally handicapped people. The recreational, educational, and therapeutic value of water has long been recognized (Lepore, Gayle and Stevens 2007). Many authors and articles describe that the water environment can be used for rehabilitation, therapy, instruction, education, leisure, competition, and recreation. In addition, Physiological, psychological, and social benefits can be gained from swimming. It also provide individual worth an opportunity for a lifelong recreational outlet with peers and family (Paul Jansma 1988 p.312). Major goals of a swimming program for students with disabilities include enjoying water activities, learning how to swim, and improving swimming performance.

As Marg Caspo pointed in 'Water learning and swimming for the severely handicapped', the increasing number of reports on successful swimming instruction of severely handicapped indicated that a growing number of students are effectively participating in water learning. Some may learn to swim before they learn to crawl or walk.

Therapeutic Benefits of swimming

Children with a general lack of muscular developmental and coordination, those with epilepsy, cerebral palsy, hearing impairment, spinal bifida, osteogenesis imperfect, have been shown to develop the needed muscular control in water (Richard, 1980 cited in Jansma, 1993 pp.288). Its cushioning effects provide support for weak limbs and breaks falls. Its greater resistance to movement result in stronger kinesthetic and propioceptive feedback, a stronger sense of where the body is and what the body does, and helps to tone muscles (Buis & Schane, 1980 cited in Jansma, 1993 pp.288). When PWD require sensory stimulation, water can be an important part of therapy (Lepore, Gayle, Stevens (2007).

Lian and Goyette (1998) describe the therapeutic benefits of swimming as follow:

"Water provides plenty of sensory stimulation, such as different water temperatures, water movement, the feeling of being free, and the sounds and vision in and around the swimming pool. Just being in the water is relaxing and exhilarating at the same time. People with spastic conditions become more relaxed with less muscle tone when they are in warm water, while limp persons become more alert with high muscle tone when they feel the movement of the water.... Movement in the water seems effortless, muscles relax and mental tension fades away."

Hydrogymnastics

Lasko and Knopf (1984) endorse rehabilitation exercises in the water. They use the term 'hydrogymnastics' to refer to a medically prescribed therapeutic exercise program performed in the water. In hydrogymnastics, the water is used as a therapeutic modality to habilitate individuals with disabilities: "Many people prefer Hydrogymnastic because it occurs in warm water (92-93). It is believed that warm water decreases pain and induces relation. With this decreased pain, many clients can see noticeable improvements in their range of motion." Because water include the effective transfer of heart to the body, which in essence relieves pain and promotes relaxation due to thermal energy transfer (Lepore, Gayle, Stevens (2007).

Psychological benefits

Lepore, Gayle, Stevens (2007) state that "although water activities do not magically solve life's problems, swimming enriches life and provides opportunities for increased morale and body image (Benedict & Freeman, 1993), improved mood (Berger & Owen, 1992) and decreased depression (Stein & Motta, 1992)."

For individuals with disabilities, an empty wheelchair or a pair of crutches left on the pool deck means freedom of movement and a feeling of success, which enhance self-image.

Attitudes to sport and exercise are important. If a competitor wishes to succeed then he has to develop an element of aggression in order to win. The correct spirit will make him do his best (Kay Lotto 1981).

Physiological benefits

Review on different journals and articles indicated that swimming activities give youngsters and adults opportunities and experiences not possible in any other environment. Buoyancy and ease of movement in water occur because:

- Reduced gravity, Gravity does not pose the same problem in water as
 it does on land, hence individuals with severe motor impairment may
 find it easier to perform in water;
- Less weight on joints;
- Less strength needed for movement;
- Easy attainment of the independent standing position;

Physical benefits of regular swimming activity as follows:

- Helping to develop the stability needed to learn skills for locomotion and object control (Horvat, Forbus, & Van Kirk, 1987 cited in Lepore 2007 p.16);
- Improving balance, gait, endurance, agility, coordination and flexibility are the reported results of water activities to quality of life by increasing the ability to perform regular daily activities with greater ease and efficiency (Kay latto 1981; Moon 1990; Schleien 1993; and Lepore 2007);
- Strengthening of heart muscles influenced heart activity, blood circulation, and decrease blood pressure to reduce the risk of heart disease;
- Strengthening lung capacity and expansion of chest cavity can help improve breath control and cardio-respiratory fitness.

Social benefits

A quality aquatics (Swimming) program can facilitate social and emotional benefits in addition to physical wellness (Benedict & Freeman, 1993; Berger & Owen, 1992; Stein & Motta, 1992 cited in Lepore, Gayle and Stevens 2007). Additionally, it provides a form of exercise that is perceived as relaxing and socially acceptable; it can be carried over to other functional activities, and creates lifelong skills, independence, and feelings of accomplishment. Other benefits include reduced stress, improved mood, and decreased depression.

Peer relationship

Recreational (Swimming) activities are the most natural in which to promote and support positive social interactions and even friendships between people and without disabilities (Moon1994); it offer opportunities for meeting other people both on and off the field can inspire loyalty and extend the scope of personal contacts and friendships. Sport provides a topic for conversation, therefore improving prospects of communication and assist in developing more positive attitudes and acceptance of individual differences (Kay latto 1981).

Biological benefits

Biological effects of immersion in water up to the chest or higher can improved lymphatic compression, venous compression, increased central blood volume, increased cardiac volume, increased oxygen delivery, increased blood flow, offloading of body weight, decreased joint compression with movement (Lepore, Gayle and Stevens 2007).

3.7 Barriers to sports participation

Schleien et.al (1997) suggested that "recreation professionals or providers need to realize those barriers to recreation programs as well as encountered at any stage of the recreation service delivery process." They are related to organizing recreation services, to personal or professional attitudes, to individual skills and to the disability characteristics of the potential user.

Despite PWD often have more free time to participation in sport or recreation programs than those without disabilities (Moons 1994) and increasing sport opportunities for individuals with disabilities within school physical education or after-school sport programs continue to be inadequate (Gavron, 2000).

Depauw, Gavron (2005) points out that economic, psychological, physiological and sociological factor often remain as barriers to sport participation by individuals with PWD.

Internal barriers

One of the most influential internal barriers addressed in the literature is the attitudes and motivations of PWD, particularly self-consciousness and low levels of confidence. (Sherrill 2004; Moon 1994; DePauw Gavron 2005; Smith. Austin. Kennedy 2001; and Stewart Macpherson, Gina M, Sequeira 1996). This lack of confidence and self-esteem as follow:

- Feeling different from the majority of the population;
- Feeling unable to fit at a sporting facility;
- Anxiety, uneasiness or a distress felt about an activity. For example a swimmer experiences anxiety because of a fear of drowning;
- Low self-expectation or lack interest;
- Lack of social skills and communication skills in asking for help and assistance in a sporting environment. Moreover, the influence of family and friends in terms of providing practical assistance and moral support has been shown to affect the confidence and self-esteem of people with a disability (DePauw and Gavron 2005).

External barriers

External barriers resulting in a lack of opportunity to participate in physical activity (particularly sports) among people with a disability have been widely discussed in the literature (Sherrill 2004; Moon 1994; DePauw Gavron 2005; Smith. Austin. Kennedy 2001; and Stewart Macpherson, Gina M, Sequeira 1996) and incorporate a range of issues, including:

Lack of suitable facilities, equipment and transportation

Many persons with disabilities do require some additional apparatus or assistive device (e.g., wheelchair, specially designed prosthesis, sighted guide, visual cues) for participate and access in recreation and sport activity;

Eichstaedt, Kalakian (1993) indicated that most pools are not suitable for both individuals who are disabled and non-disabled. According to American National Red Gross (1997a) identifies some of the necessary adaptations as follow:

"Generally, specific adaptations are to overcome problems such as architectural barriers water depth, temperature adjustment, and the ever-present problem of getting some less mobile individuals into water. It is far better to adapt existing facilities than it is to forego programs for the lack of special facilities"

Winnick (2000) highlight that facilities and equipment must be accessible and safe, as well as lend swimmers and participants to successful and satisfying experiences. Facility design must enable participants to make transitions between the locker area, pool deck, and water. Dry ramps and wet ramps, and gradual steps with handrails are examples of built in methods of transferring into pool. Safe entrances and exits are crucial to accessible swim instruction (Grosse & Thompson, cited in Eichstaedt, Kalakian 1993; Lepore, Gayle and Stevens 2007).

Lack funds support

PWD might have less discretionary funds to spend on recreation and leisure activity participation than would people without disabilities. The case may be lack of employment, low wages, and limited assistance from social services agencies, because of the need to purchase specialized or adapted equipment.

Lack of qualified staff

Recreation professional or provider often do not possess the skills, knowledge, or motivation to adequately or appropriately include PWD in sports or recreation programs.

Chapter 4: Methodology

4.1 The role of worker as insider researcher

My role is a insider researcher and participant observer as well as playing a major role in the research process. To develop the research project, I explored some information and reference from my past research project, and discuss my ideas with HKSAM, peers/ coaches, clients/parents (Stakeholders) and programme advisors, and to facilitate the interaction and brainstorming as well as developing the research topic and objectives.

When I was going to carry out the research project, it is important to gather different information from different context areas there are included focus on government and non-government organizations' political, sport historical and development and other relevant areas to access relevant information from various sources, including the Internet, libraries and archives. Moreover, researcher is able to aware of the legal and ethical considerations, to maintain up-to-date contact lists with different participate and organization. The process made me feel I'm stay in the central between with different context areas.

Advantages of insider worker & Researcher

The research also has an important role to application of my own experience and knowledge to develop a research project that I have prior understanding of the sports culture and relevant organization in swimming industry. I can use my professional knowledge and relationship to obtain richer data through conversation with my clients.

The process of research an opportunity to develop partnerships, build a network in my workplace to establishing public relations, and have opportunity to share and exchange the experience between with different coaches, athletes and other people who serves PWDs.

The role of researcher

There are included:

- To select a suitable topic for research and to define a feasible research question;
- To summarize the relevant scientific literature and evaluate the evidence critically in relation to the chosen research question;
- To design and conduct a research proposal plan which will effectively answer the research question;
- To record and collate the results using suitable data reduction, graphics

and statistical analysis;

• To draw appropriate conclusions from the research results and relate them to the original aims of the research and to current knowledge.

4.2 Research approach

The research project use qualitative approach rather than quantitative approach. Research projects adopt a combination of methods to achieve specific ends which involved: a) phenomenology; b) survey questionnaire; and c) case study

The strategies of data collection as follow:

- Survey Questionnaires on parents;
- Mail survey on special school by e-mail and letter;
- Interviews with coaches and parents; and
- Case study on relevant written documents.

4.2.1 Sampling description

Participants were purposely chosen to fit the research in order to obtain rich information. The survey questionnaire and interviews sample comprises respondents from parents (my clients) coaches and special schools. Although PWD have a right to participate in research process, I believe it will be better for parents to representation their child to answer the questionnaires and interview.

4.2.2 Phenomenology

Phenomenology is the study of lived experiences and the way we understand those experiences to develop a worldview. As a qualitative research approach, phenomenology focuses on human action, experience, life world, and consciousness in order to understand the meaning a particular phenomenon has for that individual or group.

Lived experience

For a study focusing on individuals' lived experience, the lived experience is a term from Husserl. (Catherine Marshall et. al 2006) state that "human actions cannot be understood unless the meaning that humans assign to them is understood. Because thoughts, feelings, beliefs, values, and assumptive worlds are involved, the researcher needs to understand the deeper perspectives that can be captured through face to face

interaction."

By phenomenology Husserl (1913) meant the study of how people describe things and experience them through their senses. All our understanding comes from sensory experience of phenomena, but that experience must be described, explicated and interpreted. In the other word, through the con-sciousing process laid out by phenomenological exploration, descriptions, and analysis, our experiencing and feelings as persons are also shown forth toward further understanding (Stange 1987, pp.46).

Review of various researches and literatures in "individual lived experience" study typically relies on an in-depth interview strategy. The strategy is a road map, a plan for undertaking a systematic exploration of the phenomenon of interest. The research methods are the specific tools for conducting that exploration.

Phenomenologists have long argued that there are kinds of studies which can be called 'human science' However, Stange (1987, pp.41-42) explain a phenomenological investigation is always a human science:

"A human science is an orderly and systematic investigation and description of a person's (and persons') felt experiences of direct phenomena through the various forms in which selected and relevant phenomena may appear or be manifested."

I identified a phenomenology method as a part of technique for this research. I believe that phenomenology approach is more suitable than other research approaches. Lichtman (2006) explain that phenomenology as a method looks at the live experiences of those who have experienced a certain phenomenon. The purpose of this type of interviewing is to describe the meaning of a concept and phenomenon. This strategy is a primary method for gathering data. The tools are involved in: setting up conversations and interviews with my clients (parents) and coaches to find out their attitude, expectation, experience and perspective of participation in swimming.

4.2.3 The advantage of qualitative interview

The advantage of interviewing is that it allows researcher to receive an immediate response to a question; this strategy allows researcher and interviewee have opportunity to explore the meaning of questions posed and answers proffered, and to resolve any ambiguities. Unlike with mail survey, the interviewer has the opportunity to probe or ask follow-up questions. It is a method that appears to offer valuable information about participant's experience such as family attitude, prospective of participation behavior that may otherwise go unnoticed phenomenon.

4.2.4 The process of conducting interview

It is always important to give interviewees time to think about the questions before the actual interview and all the interviewees were offered a choice of interview venues, such as their own home or, alternatively, a local community center, swimming pool.

All interviewees were asked to sign a written informed consent from agreeing to voluntarily participate in the study. Each interview began with a standardized introduction in regards to the research, explaining its aims and objectives. The interview followed up on issues raised in the questionnaire survey responses. During interview, I have been concentrate on what interviewee was saying and respond to make a successful interactive interview, all respond from the interview were transcribed by a notes. Additionally, the interview having the participant told their story about their experiences in swimming. All participants were given the opportunity to add or alter any answer or idea communicated during the interview. Moreover, I believe recording devices are inappropriate which could make the participant uncomforted so that only notes has been used during the whole interviewing process.

The interviews were conducted in Cantonese. The participants interviewed individually for approximately 30-45 minutes at a mutually convenient location. They were conducted at the LCSD public swimming pool and fitness centre. All participants were encouraged to talk about their sporting involvement, their perceptions of swimming, restrictions on participation in swimming.

4.2.5 Survey questionnaire

A questionnaire is a research instrument consisting of a series of questions. Review on different journals and articles indicated that the questionnaire and interview can be used together. Questionnaire is an inexpensive way to gather data from a potentially large number of respondents; it can allow respondents to fill it out at their own convenience; and it can be easier coding than transcripts interview. The aim of using questionnaire technique are broader the research finding and supplement the interview data. The methods are sending questionnaires to parents and special schools.

4.2.6 Questions design

The questionnaires used in these areas:

- Survey Questionnaires with parents;
- Mail survey with special school by e-mail and letter;
- Interviews with coaches and parents.

Before developing the questionnaire, I have been conservation with some parents and coaches as well as told them that I need to develop a research project. They also have great interest and agree to participate in the study. Through these conservations, I have

gained some suggestion and clear concept to develop the questionnaires.

To develop a questionnaire, it is important to keep the questionnaires as short and straightforward as possible to avoid unnecessary confusion and wasted time re-reading the questions. I have been aware that the wording is completely unambiguous so that the participants can read it easily and give a precise answer as well as ensuring that their answers can be easily coded. The questionnaires consists of open-ended questions and multiple choices questions. However, the participants allowed choosing more than one answer on multiple choices questions. The open question is allowed and encouraged them to expand on anything they felt was important. The question design focus on these areas: participation behavior, experiences and attitudes; frequency of participation; barriers to participation; benefit of participation; where to take part in swimming course; access to sport programs and facilities and suggestion from respondents.

4.2.7 Case study

Case study as an approach to qualitative research involves the specific and detailed study of a case or cases (Lichtman 2006). Case study rely on historical and document analysis, interviewing, and typically, some forms of observation for data collection.

Marshall and Rossman (2006) describe 'case study' that "a rich tradition of community studies, organizational research, and program evaluations documents the illustrative power of research that focuses in depth and in detail on specific instances of a phenomenon.

The advantage of case study can also be combined with other research methods in which can be used for description of phenomena, development of theory, and testing of theory (Cavaye 1996, pp. 234-236). However, case study is to gain an in-depth understanding of a case and the interaction between the phenomenon and the case (Randolph, 2007).

Application of case study approach

The processes are included:

- Reading documents, leaflets and other written information sources from different organizations or sectors;
- Reviewing on relevant literature, reports and research project;
- Participant observation is a part of studying the case. The advantages of participant observation are included: gathering the data; direct observe the response of interviewee; help in studying the disability sport industry and its cultural and historical background; and

Helping to analysis the document, interview and survey data.

4.2.8 The process of internet search

Websites can provide valuable information for the researcher. The content of the sites can be analyzed in terms of the text and images they contain. In effect, it can be treated like online documents. In additions, Search engines (e.g. Goggle and Yahoo) are a great system to help me find out useful information.

Searches were conducted using the following key words and various combinations: 'Sport' 'recreation' 'physical activity' 'physical education' 'exercise' 'swimming' 'disability' 'impairment' 'handicap' 'barriers' 'policy' 'rehabilitation'. From the relevant articles identified, key author names and citations were further searched.

The disadvantage of the Internet research

Information found on the Internet can be out-of-date, poor quality material because there is little control over what is place on the Internet. Base on this reason, I have been discerning and constantly evaluate the sources of the information.

4.3 Ethical Consideration

All research participants have a right to know what the research is about and to refuse to take part in it or to answer particular questions. It is necessary to ensure that all participants are fully informed about research procedure and give their consent to participate in the research before data collection takes place.

In additions, participants have been providing with the questions prior to consent. During the interview, participants were given opportunities to ask questions prior to interview and will be assured of anonymity; all participants allow changing their name in the transcripts to ensure confidentiality their right to withdraw from the study at any time, and the secure keeping of all materials which is used for each stage.

Furthermore, all participants were asked to confirm or correct the reconstruction of their idea and experiences to ensure that participants are not harmed by the research process at any level, from the individual to the social.

4.4 Content analysis

The analytic approach involved content analysis of cases from note, documents, interviews and survey data. All data were translated into English for data analysis. This process involves content coding words and sentences into a coding scheme or classification system. All methodological decisions made throughout the study were recorded. The written records included the researcher's decisions, choices, and insights; description of research settings and procedures. Excel had been used for analyzing survey questionnaires.

Chapter 5: Project findings

5.1 Introduction

The project findings divided into three directions

- 1: The information was collected by survey questionnaire with parents;
- 2: The information was collected by survey questionnaire with special school;
- 3: The information was collected by face-face interview with parents and coaches. The interview followed up on issues raised in the questionnaire survey responses.

On March 2010, I started to send out 53 questionnaires to my clients through face to face delivery resulting in 53 parents completed the questionnaires. Then I invited them participate the interview. As a result, there are 7 parents completed the interview. There are 4 coaches agree to take part in the interview, each coach was teaching swimming with PWD at least one year.

On June, 60 survey questionnaires were sending to all special school by e-mail. Only 2 Special schools returned the survey, the follow up strategy was sending out the letter to special school who had not returned the e-mail two week after the initial distribution as a result there are 20 special schools returned the questionnaires by letter. A total 22 of special school participates in this study. The second mail out of the survey to these special schools only marginally increased the response rate but a number of special schools did not reply that they felt the survey was not relevant to their school. Another common response was that the school did not have the necessary information and time to answer the questions. The low response rate from the survey of special school is an obvious limitation of the study.

5.2 Survey questionnaire with parents

The findings were:

- **Figure 1** show that the most enjoyable sport is swimming; second is running; the third is cycling;
- **Figure 2** it shows the PWD athletics participate in school sports activities more than community-based sports
- **Figure 3** it shows there are swimming courses ran by different organizations;
- The parents have great interest to take their child participation in swimming; Some of parents indicated that although the school have provide the swimming class to their students, they also participation another organizations which have

- provision of swimming class for PWD or recruit private instructor because they want their child have more opportunities participation in sports;
- The parents want their child have more opportunities participation in swimming and regular swimming class. 40% of disabled athletes swim once or twice a week; 39% of disabled athletes swim more than twice a week (**Figure 4**); 62% of disabled athletes participation in swimming over 2-5years (**Figure 5**);
- The survey and interview with parents found that most of school and HKSAM waived all the charges for PWD who participates in swimming; However, Figure 6 also show that the cost of swimming class: 19(n) free of charge; 13(n) \$80-100/hr; 12(n) more than \$150/hr; 3(n)\$ 100 -150/hr.
- A number of parents commented that LCSD, HKSAM and HKPCSAPD have swimming program / classes for citizens but there are only 10- 20 sessions for each family in summer time and it is not easy to apply. They also pointed out that the LCSD's swimming classes are not really helped their child / students to learn swim because they felt that the instructors are lack of knowledge, skills and experience to teach PWD and lack of understanding the various characteristic of PWD. For example; the ratio of the class is 1 instructor and 1 assistant to 16 students; the instructors were inexperienced in handling students' discipline and maintain control; One parent pointed that "HKSAM provide swimming training for only "selected" individuals with mentally disability, which is dissatisfied. Appropriate sports clubs for the mentally disabled is unavailable and very few."
- **Figure 7** shows that 37 of parents have been recruit private swimming instructor; 16 of parents have not been recruit private swimming instructor. Some of parents indicated that They more likely to recruit private swimming instructor who have experience to teach PWD;
- A number of parents experienced that organize swimming class in small group can reduce costs, meet their schedule, and improve their child attend to learn swim when they invited their friends or other parents share the cost by recruiting private instructors;
- **Figure 8** show that 48% of questionnaire respondents feel sometimes conscious of their child looks or body image when participation in swimming; 35% feel always; 17% feel no, never;
- **Figure 9** show that the factors affecting people not participation in swimming program with questionnaire respondents views, the result are: 22 (n) insufficient budgets; 20(n) lack of accessible facilities; 19(n) the limitation of physical condition;17(n) lack of time; 16(n) a fear of downing; 14(n) no interested; 12(n) Services provider and coach lack of knowledge or skill; 10(n) lack of information to find a swimming class and coach; 7(n) bad whether; 6(n) rely on others for help;

5(n) poor attitudes on the part of staff; and 4(n) community resistance;

- Figure 10 show that the factors encourage parent and their child to take part in more sports or physical activities, the result are: 35(n) more support for PWD; 31(n) affordable; 28(n) More local clubs and sports programs for PWD to join; 22(n) easier access to information; 8(n) nothing; and 1(n) don't know;
- However, there are 3 parents suggested that the schedule of sports and physical activities programmes need to meet with participants. Another 4 parents suggested that the programmes need to designed be more fun and able to build self-confidence for participants;
- **Figure 11** show that parent attitudes on taking swimming courses/ lessons. The findings are following:

Very important

Number of parents	Opinion
35	Physical health or exercise
28	Improve breath control and cardiorespiratory
28	Improve balance and coordination
27	Increase self-confidence

Important

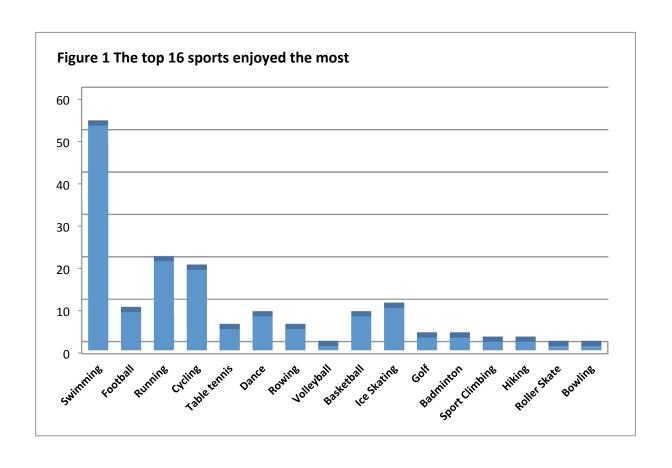
Number of parents	Opinion
27	Improve sport skills and knowledge
26	Improve mechanics of swim strokes
24	Enjoy nature
23	Freedom of movement

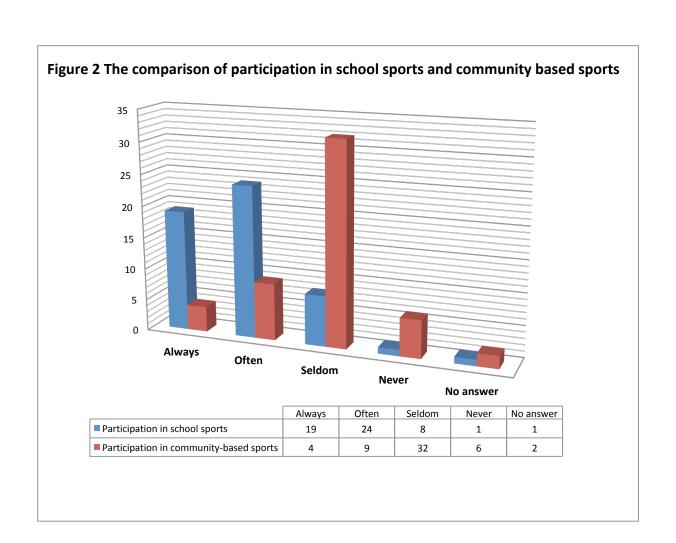
Somewhat important

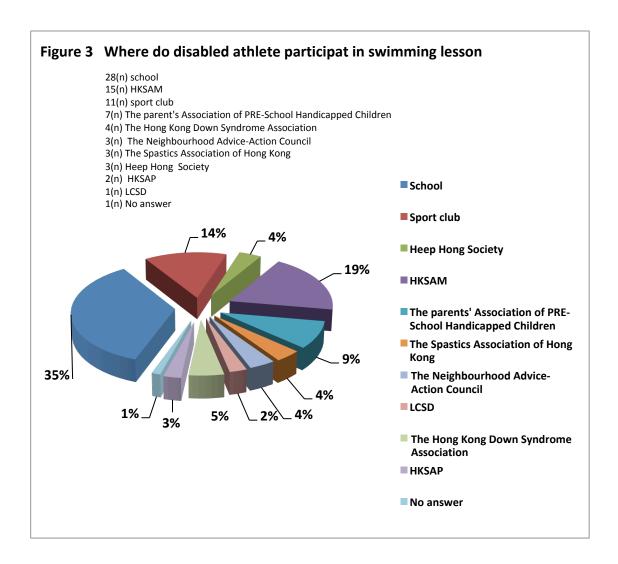
Number of parents	Opinion
20	To complete against others
15	To meet new people
13	Improve body image
11	For a challenge

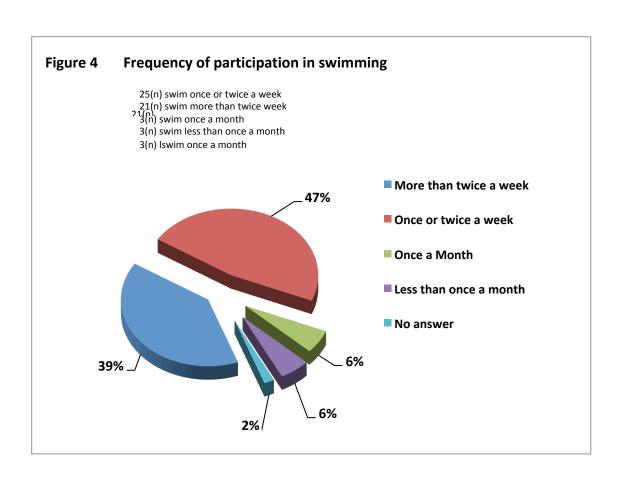
Not important

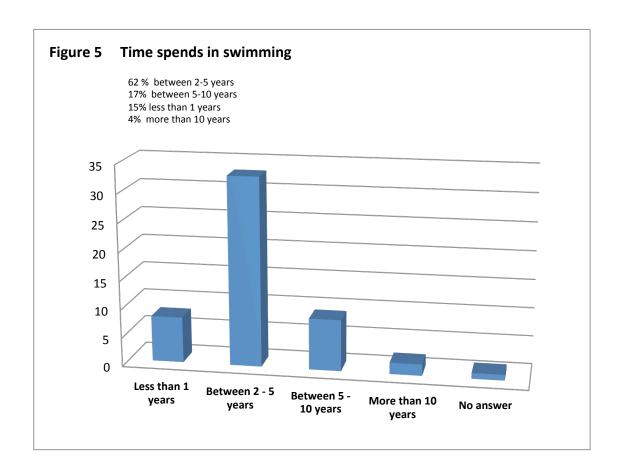
Number of parents	Opinion
9	To complete against others
7	Sensory stimulate
6	For a challenge
5	To meet new people

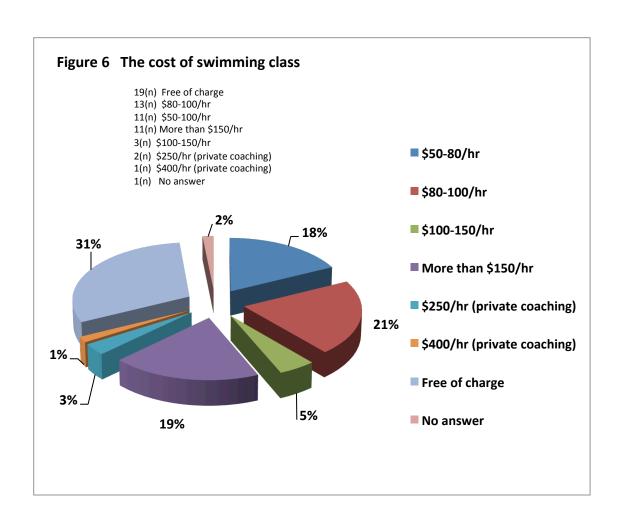


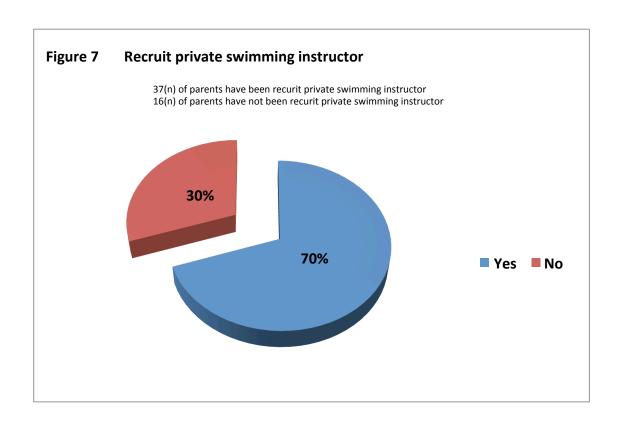


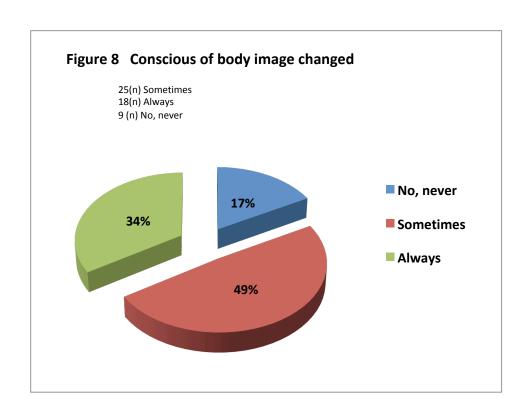


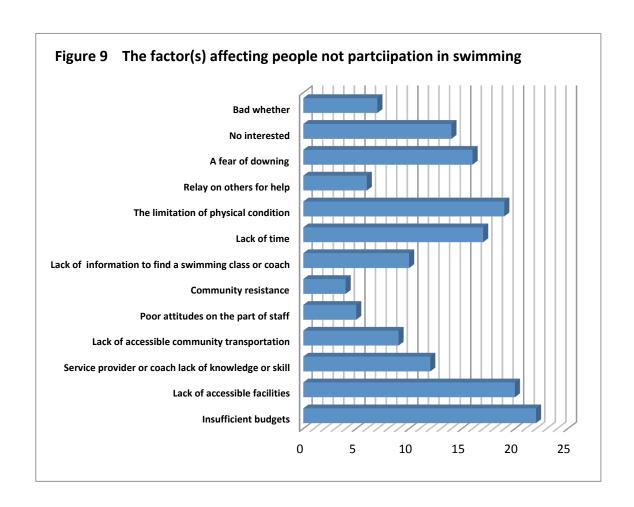


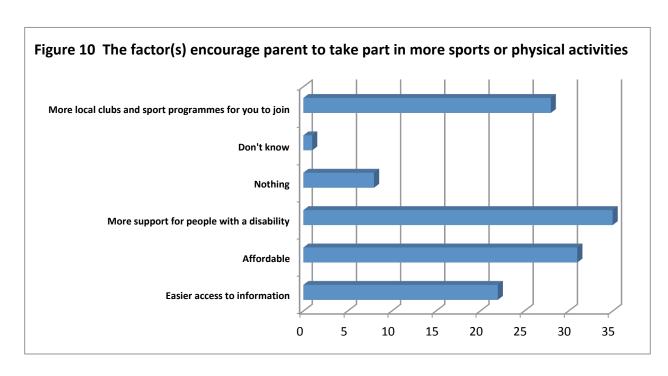


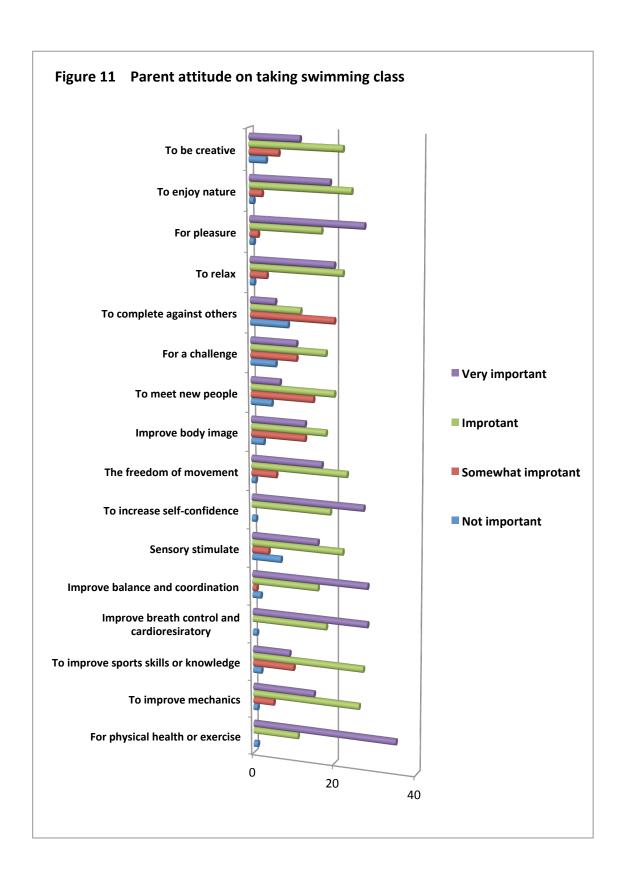












5.3 Mail survey on special school

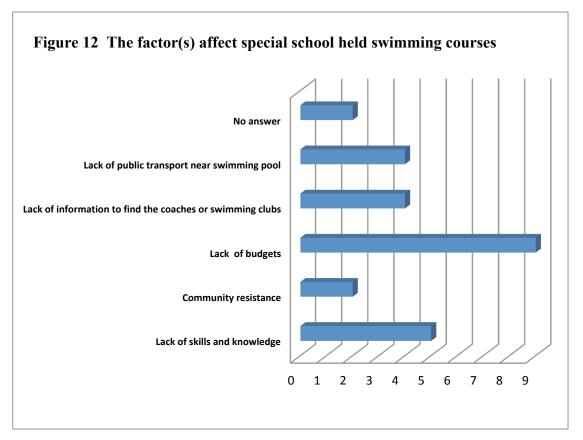
The findings were:

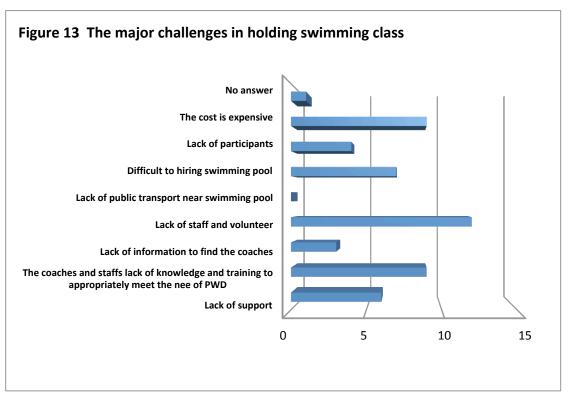
- There are 13 out of 60 special school have been organized swimming class to their students; 9 of them have not been organized swimming class;
- There are 12 of special school have been participate in local swimming event or competition; 11(n) organized by HKSAM; 1(n) organized by HKSAP; and 11(n) have not been participate in local swimming event or competition;
- There are 15 of special school will consider held swimming courses; 6(n) will not consider held swimming courses; 1(n) no answer;
- The factors will affects special school will not held the swimming courses are: 9(n) lack of budgets; 5(n) lack of skills and knowledge; 4(n) lack of information to find the coaches or swimming clubs; 4(n) lack of public transport near swimming pool; 2(n) community resistance; and 2(n) no answer; (Figure 12)
- Special school supposed appropriate cost of swimming class are: 8(n) Free of charge; 6(n) \$ 50-100/hr; 3(n) \$ 100-150/hr; 2(n) \$80-100/hr; and 3(n) No answer;
- There are 7(n) of swimming class organized by swimming clubs or social organizations; 2(n) organized by LCSD; 2(n) organized by HKSAM; 1(n) organized by Hong Kong Baptist University; 14(n) do not organized by swimming clubs and social organizations; and 1(n);
- There are 13 (n) of special school responded that facilities of public swimming pools are suitable are suitable/sufficient for people with special needs; 8(n) responded that facilities of public swimming pools unsuitable and insufficient for people with special needs; 1(n) No comment;
- The major challenges in holding swimming class are: 12(n) lack of staff and volunteer; 9(n) the cost is expensive; 9(n) the staffs/coaches lack of knowledge training to appropriately meet the need of PWD; 7(n) difficult to hiring swimming pool; 7(n) lack of support; 4(n) lack of participants; 3(n) lack of information to find the coaches; and 1(n) no answer; (Figure 13)

Other comments or suggestion provided by special school are:

- Swimming course is good for our students with special needs in broaden their experience and growth healthy;
- The special needs students really need the family changing rooms in the public swimming pool;

- ➤ The number of shallow water training pool is not enough for the special needs students;
- > Teachers themselves must be qualified for teaching swimming;
- One school teacher pointed out that hospitalised students need to have medical staff's approval to participate in any activities;
- Another two school teacher reported that Ability problems (students)/ the health of students will affect them to participate in swimming;
- One school responded that most facilities of public swimming pools are lack of minor equipment and lack of hoist. The factor(s) affects special swimming courses





5.4 Interview with parents and coaches

5.4.1 The impression and motivators of participation in swimming

Through interviews and surveys with parents, it shows that parents have great interest to bring their child participating in regular swimming lessons / classes. However, the parents and coaches share common value and benefit during participation in swimming as follow:

Physical-health development

- Enhancing muscular developmental and coordination;
- Improvement in body image;
- > Improvement in breath control;
- Strengthening cardioresiratory; and
- > Improvement in Physical Wellness.

Social development:

- Improvement in communication skills;
- > Opportunity to make friends;
- ➤ Inclusive in community;
- Changing people attitudes towards PWD.

Emotional development:

- > Strengthening confidence and self-esteem;
- > Improvement in behavior problems;
- Enjoyment in swimming;
- > Improved mood, and decreased depression; and
- > Freedom movement in water;

Individual development

- > Sports provide pathways for PWD to complete at an elite level;
- Developing a career in sport as an assistant coach or volunteer; and
- ➤ Independent from family.

For some parents, the psychological and social benefits involvements in emotional and enjoyment benefits were of more significance than the potential for physical-health benefits.

For example:

- One of the parents said that his son is now more independent because he is able to take a shower, change clothes and take a bus to swimming pools by himself;
- A number of parents sensed that the children are less likely to be depressed and often show improvement in behavior and social interaction during his participation in swimming classes.

Responding to the question "Why you bring your child take part in swimming class?" and "In your opinion, what was the success of the swimming program?" The parents reported that:

"I don't know how much physical activity she actually gets out of it. I just want her to have fun and healthy."

Mother of a female student, aged 10

"I just want her to make some friends. To me, that's more important than the sport or recreation program part of it. Right now, at her age, friends are more important so I guess the feeling is fitting in."

Mother of female student, aged 15

"The most important is the child can earn from the coaches and be confident from swimming. Whether or not a child can swim very well, it doesn't matter."

Father of male student, aged 8

"The learner improves in medium and long run in skills of swimming of the most important of all, anyway my son is happy to participate in the program."

Mother of male student, aged 13

"The students should love to swim, friendly with the coach"

Mother of male student, aged 11

"A thorough understanding of the learner's ability and a good design of the programme according to the learner's progress"

Father of male student, aged 15

Responding to the question "What do you think your child enjoyed the swimming program?" The parents reported that:

"Most of the time, my son enjoy the lessons. But there's also great pressure on him to improve swim speed and swim faster."

Mother of male student, aged 13

"She likes swimming because she could move more freely in water. For a child suffers from cerebral palsy, swimming is the best strengthening exercise".

Mother of female student, aged 10

"Swimming is good for him because he can be with other kids and he can be follow instructors' direction. This is a great opportunity for interaction with peers and develops friendships as well as improves his social and communication skills."

Father of male student, aged 8

One of the mothers thought that swimming lessons helped her daughter to feel a sense of joy:

"The day that she has swimming lesson... she comes back and has a big smile on her face and she says, 'I swam today' and she'll tell me what she did."

At the same time, a number of parents reported that when they get their child to participation in sport or recreation program there are opportunities to have conversation with other parents and meet others to sharing information and experience about where or which coaches and organizations provide sport and recreation program to their needs and discuss which are better.

5.4.2 Public attitude towards disabled athletes

In recent year, Hong Kong's disabled athletes have achieved considerable success in international event and sports competitions.(Table 4) The successful drive public more concerns with disability sports and their needs as well as changing people attitude towards PWD. One parent said that "When people see these athletes, they are always impressed by their effort, their stamina and their ability. They start seeing them as competent." One coach reported that "Sports don't just increase self-respect among disabled athletes; they increase others' respect for them, too." As a result, HK Government, communities, societies and public more support or funds to develop and promote recreation and sport activities to PWD.

 Table 4
 International competition and event (aquatics)

Years	Competition	N0.of	Meda	Medals			
		Athletes	Gold	Silver	Bronze		
2001	Special Olympics New Zealand National Games 2001 (Auckland)	4	9	3	2		
2002	The Third National Special Olympics Games of People's Republic of China (China Xian)	8	8	5	7		
2002	3 rd Special Olympics Nippon National Summer Games (Tokyo, Japan)	4	7	2	-		
2002	International German Swimming Championships 2002 (Berlin, Germany)	10	23	18	11		
2002	2 nd INSA-FID EUROPE Open European Swimming Championship	7	-	1	1		
2002	IPC Swimming World Championship (Argentina)	10	-	4	-		
2003	Australia Open Swimming Championships (Perth, Australia)	10	2	3	2		
2003	2003 Special Olympics World Summer Games (Dublin, Ireland)	4	4	2	1		
2004	INAS-FID Global Games (Sweden)	8	5	10	7		
2005	4 th INAs-FID World Swimming Championships (Liberec)	8	4	4	6		
2006	9 th Far East & South Pacific Games for the Disabled (Kuala Lumpur)	8	6	7	4		
2006	2006 Special Olympics Shangai Invitational Games (Shanghai, China)	4	5	3	-		

2006	National Special Olympics Games (Harbin, China)	6	8	5	2
2006	German Open Championships in Swimming (German)	7	13	11	7
2006	3 rd INAS-FID Open European Championships in Swimming (Portugal)	7	11	7	5
2007	5 th INAS-FID World Swimming Championships (Ghent, Belgium)	12	5	8	4
2007	2007 Special Olympics World Summer Games (Shanghai, China)	18	15	14	8
2008	4 th INAS-FID Open European Swimming Championships (Ostrowiec Swietorzyski, Poland)	8	13	9	9

Guinness World Records

Case study 1

To echo the world Sight Day, The Hong Kong Society for the Blind (HKSB) organized "KINGDOM Swimathon for Brightness 2007" to raise funds and to raise awareness of the needs and the abilities of the visually impaired among the general public. This is the first ever swimming relay event in Hong Kong organized for the visually impaired and the sighted people. There were 146 teams each with six members for the relay swimming contest. More than 1000 swimmers participated in this event including over 50 visually impaired swimmers from Hong Kong and over 40 disabled athletes from Guangdong Province. A total of \$1,668,685 was raised from this meaningful event. Meanwhile, the event was breaking of the Guinness World Record, the Record breaking of relay swim of 69 feet each by 159 swimmers in 40 minutes 21 seconds.

Source by: Annual report 2007-2008 of The Hong Kong Society for the blind (HKSB)

Case study 2

Hong Kong Blind Sports Association (HKBSA), which was established on 14 April, 2008, is a pioneering organization providing sports training specially to people with visual impairment. On 19 October, 2008, HKBSA has organized the "Kingdom Swimathon for One World 2008". Over 1,000 people with and without disabilities Participated. In 2008, "Kingdom Swimathon for One world" was registered to break the Guinness World Records. The new record broke by HKBSA is 254 participants with and without disabilities swim by relay within one hour while the old record held by the United Kingdom was 2004.

5.4.3 Sport career development with athletes

Participant observation

Sports provide pathways for people with disabilities to complete at an elite level, or develop a career in sport as a coach or volunteer. The following is case of Mary and Susan:

Few years ago, I meet Mary and Susan in HKSAM. In 90's, they participated in swimming training program by HKSAM and obtain opportunities to make contributions in local and international championships, as well as the Special Olympics Game. They also told me that they loves the sport and like to teach swimming, HKSAM provides many opportunities for them to learn and train to be elite athlete and volunteer, these experiences strengthening their confidence and self-esteem. Susan is currently a lifeguard working in LCSD and she is a coach of swimming club. Mary works as an assistant swimming coach in HKSAM and teaches in Special School.

5.4.4 The attitudes and experiences on coaching PWD

This section will go through the views of coaches when they started to teach PWD swimming. The interview also found that the coaches enjoyed in coaching PWDs because of their love the sports and their desired to learning more and contribute with PWD. Additionally, the coaches sensed that their experiences of coaching PWDs improved their leadership and psychological skills and provided them with a general understanding of the technical, tactical and physical aspect of the sport and gained learning disabilities' experiences.

The attitudes and experiences of coaching PWD are following:

"When I teach swimming with athletes with disability, I have enhanced my coaching abilities as I was compelled to see things differently and be creative. I have learnt a lot about characteristics of the trainees with different disabilities. I turned everything I saw and did into a golden learning opportunity for me."

"In the beginning, I thought people with mental retardation were very emotional and were not easy to be communicated with, but time proved that they were quite easy-going, friendly and genuine. Gradually I was able to build up a close and warm relationship with them. Honestly I found that it was a very rewarding experience to work with them as they had made my life so fruitful and complete."

"Teaching and coaching swimmers who have disability is no different to teaching and coaching non-disabled swimmers."

"When you teach people who are intellectual disability, you must never assume that the athletes don't understand. Their disability doesn't necessarily mean that they don't have the abilities to listen and learn."

The coaches describe the value of sports as following:

"Sports will give them a better sense of belonging in the community."

"In sport they challenge themselves and do things on their own. Sports can help them be active. And finally, just for their health. Because they are active, their whole body will be wealthier."

5.4.5 The challenges in coaching PWD

Responding to the question "What do you experience as the major challenges in coaching the athlete disabled?" The coaches highlighted the following problems with regards to the challenges of coaching PWD, which are:

- Difficult to coaching athlete disabled with different levels of potential and ability in the same class;
- Handling behavioral and disciplinary problems;
- The learner may be lack of emotional control and motivation to swim;
- Lack of support; and
- Difficult to hiring swimming pools.

The coaches explained that disabled athletes have disciplinary or behavioral problems might occur for various reasons in the class. Since they might be short attention span, misunderstanding the instructions, fear of water or environment changed, moodiness, negative to learn or feel frustrations. In addition, the coaches believe that many parents tend to be concerns about safety, access, and needs when their child participation in sport program.

Recommendation

Coaching strategies and communication skills

- Allow extra time for learning and completion of tasks;
- Keep directions simple, sequenced and organized to avoid athletes' misunderstand;
- Provide positive reinforcement for sustained attention;
- Ask the athletes to repeat the direction to ensure that they understand;
- Not only talk to athletes but also listen to them patiently as well;
- Use a respectful tone of voice;
- Develop their verbal and non-verbal communications skills such as: eye contact, body language, hand signals;
- Speak clearly and face the athletes when talking;

Class control

- Have a clear understanding of the age of the learners; the number of learners per class as well as the time, the venue and the surrounding of the class;
- Control the discipline of the learners;
- Arrange athletes/learners to enter the swimming pool and ensure all the athletes/learners enter and leave the venue simultaneously;
- Remember to sign in and be punctual, arrive the pool 15 minutes prior to the start of the class;
- Before the start of each session, coach should heed to the physical fitness and psychological condition of all learners;
- Abnormal situation occur, coach should notify the parties concerned immediately and hand over their normal duties to the nearest coach temporarily.
- Set up and design entry and exists procedures;
- Take a head count of the swimmers and record their attendance. Give numbers to the lifeguard or volunteers;
- Set rules before any session commences. Ensure swimmers know their boundaries;
- Monitor weather conditions that may affect athlete training, competition and travel to and from events;

- Monitor the physical and emotional condition of athletes or learners;
- Ensure that the locker rooms and/or changing rooms are available
- Procedures for using toilets, showers and footbaths procedures for hygiene checks;
- Procedures for checking changing rooms after use;
- Lay out athletes' activities areas.

5.4.6 Barriers participation in sports/ swimming

Despite there are advantages and the needs for people participating in sports or swimming, most of respondents also share common barriers participation as follow:

Environment barriers:

Lack of proper sports facilities (swimming pools) and equipment for PWDs

The sport equipment and arrangement settings often are inappropriate for PWD. All coaches and many of parents and participants also felt that there are lacks of suitable facilities and equipments for support PWD. One parent pointed out that there is no indoor heated pool in North District, so she spend 1 hour to other district's pool.

"Swimming is one of the main sports. But there are few suitable swimming pools for PWD needed are simply not in place anywhere locally expects at Kowloon Park public swimming pool. Because most of pool not nearby me and do not have a disabled changing room, family changing room and elevators to pool desk. Now he is ten it is difficult to take him into ladies and end up in the disabled toilet."

Mother of male student, aged 10

Most of public pool were out-dating design

The Coaches reported that most of the swimming pools environment has outdated design and this was because of the unreachable access routes, users need to go a long distance from family changing room to the pool and lack of elevators to pool desk, lack of dry/wet ramp, lack of storage space for wheelchairs, crutches, walkers, or canes;

Public swimming pools always crowded

One coach pointed out that many organizations and swimming clubs want to hire swimming pools/ lanes for training purpose but the demand for these facilities often exceeds supply, some un-self disciplined and irresponsible swimming clubs would, after failing to hire swimming pools/lanes, instruct learners to pay for admission as ordinary swimmers and then gather at a certain point at the pool-side for their swimming lessons. In this way, they would cause nuisance to other swimmers.

Some of respondents indicated that if the pool is crowded it may be affect disabled athletes to pay attention to learn swim and difficult to perform the instructions:

Inaccessible transports systems across swimming pool

Accessibilities to transport is essential to enable people with disabilities participation in recreation and sport activities. However, they currently face many difficulties using public or private transport. Most of parents commented that there is poor public transport system across the public swimming pool.

Lack of policy for specific groups priority booking facilities

One coach commented that LCSD lack of awareness and no policy for specific groups such as disability or rehabilitation organizations priority booking the lanes and pools.

Difficult to hiring swimming lanes and the pool

One coach said that:

"Disabled sports are very competitive. We need to able to train and we train just as much as non-disabled athletes but sometimes we don't have the facilities. Because, it is very difficult to hiring the swimming lane and training pool and LCSD do not have policy to allow special needs people or organizations high priority hiring facilities."

Lack of adapted information for deliver sport opportunities to PWD

PWD and their family were unlikely to hear about the sport activities. Some of parents indicated that they are not easy to find out the service providers or sport program who are provision of sport activities to PWD, unless they were targeted to receive information through schools, teachers, social workers and other rehabilitation community organizations to which they belonged, They had to rely

on recommendations by other parents regarding the availability and quality of service providers or programs. For example there may be a problem for those who had visual or hearing impairment when they get information about the time, location and cost of programs and facilities. Information should be provided in formats which people with a range of disabilities will able to access easily;

Service providers and coaches lack of knowledge and skills

One coach reported that many coaches have never received any formal training on disabilities or relevant special education courses that is a problem to understanding and meeting PWD's needs. Furthermore, one parent pointed out that the pool staffs or lifeguard and the coaches also lack of transferring techniques and knowledge to assist PWD movements from the wheelchair to the pool deck, to the lifts, to the toilet, or to the shower chair, and transfer into the pool. However, some of parents also believe that those ordinary sport clubs, their swimming class often lack policies and the staffs lack of knowledge or experiences to understand and serve PWD.

Lack of communication and cooperation for deliver sport opportunities to PWD

One coach commented that despite HKSDB has been perhaps the main partnership builder in Hong Kong sports as well as linking up and coordinating with the commercial sector, the government, the school system, coaches and elite athletes, but there is no consistency across these agencies in the planning, delivery and provision of disability sport to PWD.

Economic barriers

The cost of swimming class and transportation

• Most of the parents noted that the cost of swimming class and transportation are the primary economic barriers directly affecting their participation in sports and swimming; Number of parents said that that it will increases their costs if they need to take a taxi for the classes.

Personal barriers

PWD may have some of the intensity of physical, mental, or emotional problems, or a combination of such problems; They may have difficulties in language development, lack communication and social skills, low fitness level, lack muscular control, balance problems, lack of emotional control including moodiness, low self-esteem, lack of self-confidence, fear of changes in environment, apathy, low level of aspiration, Short attention span, anxiety and frustration. All these problems may directly result in difficulty to cope with ordinary school routine; limit their ability in exploring and

understanding the environment; misunderstanding the instructions and barriers as participation in sport or recreation programs, which may in turn affect their personal and social development. However, young PWD are often dependent on their parents or cares in order to access sporting facilities and swimming pool. Some of the parents indicated that 'Their child needs to rely on others to access sporting facilities and swimming pool'. 'They need supervision.' One mother reported that she needs to recruit a helper to bring her son to go.'

5.4.7 Parent's expectation

The research finding show that parent's expectation about participate in sports and recreation programs are:

- They want good facilities and equipment;
- They are expected good and experienced coaches, especially female coaches who were confident in working with their child, understand their needs;
- They want more sports and competitive opportunities;
- They need support from government machinery and the sport federations or some sponsors;
- They would like good transports system across swimming pools or other sport centre;
- They desire equal opportunities;
- They need a helper or volunteer;
- Easy to get information about sports and recreation programs.

Recommendations

- Coordinating and strengthening liaison and collaboration between the major partners/agencies involved in promoting community-based sports and school sports;
- Developing sporting pathways for PWD;
- Ensuring talented youth disabled receive effective support in order to development their sporting potential;
- Access to sports program, activities and facilities must be barrier-free to PWD;
- Ensuring public transportation system across the sports venues is accessible;
- Improving communication methods and provision of information to PWD;
- Ensuring sport opportunities are open to all;
- Providing support and training the key workers, coaches and volunteers for

enhancing their knowledge and skills for serve PWD;

- Providing specific sports equipments where appropriate aimed at ensuring the individuals needs and requirements of PWD are met;
- To promote lifelong swimming to PWD

Chapter 6: Conclusions and recommendations

6.1 Conclusions

The research found that in recent years, Hong Kong's disabled athletes have achieved considerable success in international sports competitions. These successful drive public more concerns with PWD and their needs. It also changing people attitude towards PWD. On the other hand, HK Government, communities, societies and public more support or funds to develop and promote recreation and sport activities to PWD.

The sports policies of HK government for PWD as following:

- Providing barrier-free recreation and sports facilities and services for PWD;
- Providing recreation and sports programs for PWD;
- To encourage PWD to make active use of these recreation and sports facilities, they and their accompanying cares are entitled to concessionary half rates when booking LCSD facilities;
- Providing the funds to foster the development of sports;
- LCSD and HKSDB provides annual financial assistance to HKSAP, HKSAM and HKSAD as well as conduct various recreational and sports activities;
- HKSDB provides annual grant to elite disabled athletes to assist them in preparing for competitions;

Through interview and survey questionnaires with all respondents, they have provided a very valuable insight into how their involvement in sport began and developed, some of the problems they have faced, and the findings show that their expectations and needs.

Despite there are advantages and the needs for people participating in sports or swimming, most of respondents also share common barriers participation as follow:

Environment barriers

- Lack of proper sports facilities (swimming pools) and equipment for PWD;
- Most of public pool were out-dating design;
- Inaccessible transports systems across swimming pool;
- Public swimming pools always crowded;
- Difficult to hiring swimming lanes and the pool;
- Lack of policy for specific groups such as disability or rehabilitation

organizations priority booking the swimming lanes and pools;

- Lack of the indoor heated pool and training pool provision for PWD training and participation in swimming;
- Lack of communication, cooperation and information for deliver sport opportunities to PWD with relevant organizations/agencies;
- Hong Kong media does little to promote sports for PWD;
- Lack of advertisements and promotional activities disabled persons are unaware of sporting activities;
- There is still shortage of full- time coaching support for disabled athletes in Hong Kong and;
- Lack of training course for coaches, sport administrators and volunteers to enchaining their knowledge and skills to serve PWD.

Personal barriers

The disadvantage of the physical, mental, or emotional problems and social and communication skills or a combination of such problems may directly affect PWD participation in sport or recreation programs.

6.2 Recommendations

The role of service providers and facilities providers

- Continually seeking new ways to improving and ensuring access to sports program, facilities must be barrier-free to PWD;
- Ensuring the services and information delivery process must be barrier-free to participants including in large print, audiotape and Braille;
- Programs and services are to be tailored to meet PWD needs and expectations including in create a fun, enjoyment, and safety environment;
- Providing specific sports equipment where appropriate their individual needs;
- Promoting and encouraging people participation in sport;
- Building stronger partnerships network;
- Sharing success and information to partners and participants;
- Continually consultation with participants and their family;
- Improving the knowledge and skills of staff, coach and relevant people. For example: provide workshop or training to them. There are included practice of

program methods for participant skill development, supervisory practices, medical and emergency protocols, specific characteristics of the client population, and program methods for a specific disability;

• The need for volunteers may increase and it can be invite parent to be a volunteer. Tasks can include helping with transfers, loading and uploading equipment from a car, stair and help in a change room;

6.3 Reflections on work based project

The research is a strategic tool to equip my knowledge and skill with an in-depth understanding of different disabilities and their characteristics; the benefit and value of swimming with disabled; disability sport, culture and history; sport, rehabilitation and education policy and development movement in Hong Kong; understanding the various special needs, acquiring the related support strategies and skills, and developing a positive attitude to teaching disabilities; and understanding diverse learning needs which can in return, improve my professional status.

The process of research an opportunity to develop partnerships, build a network in my workplace to establishing public relations, and have opportunity to share and exchange the experiences between with different coaches, different athletes, parents and other people or organizations who services with disabilities.

The research is a strategy for me to gain useful information about market trends and segment. I am able to identify which organization (e.g. special school or CBR) has provide swimming program or which is not. It is a good ways to develop cooperate opportunity to them. For example: I can send the proposal to these organizations and persuade them to hold a swimming class for them.

The challenge of develop a research can improve my thinking, problem solving and learning skills. When I develop the research project I began to transfer my role from a swimming coach to a researcher, interviewer, participant observer, reflective practitioner. To application these characteristic role and style for collect and analysis the data.

Example of Triple loop learning:

When I provide swimming class or services to clients, I suppose it is important to develop a research to understand all clients/stakeholders needs, their participation behaviour, attitudes and expectation so as to satisfy their needs. Then I went to library to work out how to create a research. In this process, I gained new knowledge and explore ideas to conduct the interview for gathering the data. Through interview with parents and coaches I asked questions to them for gathering the data, in this time my role is an interviewer. Therefore, I can directly observation their feeling and reflect, then I utilize participant observation approach to analysis their responses and interview

transcript, in this period my role is a participant observer. As a result, I can learn from their 'living experiences' to deeper understanding the sport culture, their attitudes, and expectations. The benefits of the research project can assist in planning strategies for developing adapted swimming program or services where appropriate their needs; for increasing PWD participation rate in swimming. During this process, my role is a reflective practitioner.

Strength & Weakness of Research project

- Although chapter 2 and 3 may be too long, but I believe that it can provide valuable information to audience and reader. And it will provide the reader with necessary information to decipher the meaning of the data. If I remove the section 2.3.1; section 2.3.2; section 2.3.3; section 3.4; section 3.5; section 3.6; section 3.7 to appendix. It will be undertake the word-count limit.
- The visual element of the presentation is important, so that I used of graphs, tables to enhance the appeal of the report, I used of headings and sub-headings to separate the text into blocks in a way that makes the reader to understanding the overall report easily.

Limitation

- Despite I have a good relationship with different stakeholders in swimming industry, and CBR but it is not easy to obtain support by this relevant organizations. As I have been negotiated with different organization as well as allow me to send out the questionnaires to their members for collect the data but they also reply that there are lack resource to provide this service to me.
- HKSAM allows me to develop the research project, however HKSAM indicate that I am not a staff, my role is a self employment and they are lack resource or time to provide follow up services to me within the research project. Thus I need to play my own work to complete the project.
- In addition, I found that there are lacks of information and literature about sports with disabilities in Hong Kong. So I go to library and search on internet to found some information and references by looking at past research projects, journal books from other countries. Through this process, I gained new knowledge and ideas to develop the research.
- The sample that will be used for this study may not represent the opinion of all general public;
- It was impossible to comprehensively over all PWD in this research.

Glossary

Access	Refers to the freedom and ability of a person with a disability with a disability to make use of the sport programming, facilities and services.						
Autism	A disorder usually diagnosed between 2 and 4 years of age and generally characterized by extreme withdrawal, language impairment, refusal to speak, obsessive demand to keep the environment stable, and monotonous repetition of motor actions						
Cerebral palsy	A condition characterized by lack of control of voluntary body movement and cased by damage to the brain. The condition is non-progressive and occurs in infancy and childhood.						
Community-based sports	Include all clubs not organized by the school, including informal clubs run by leisure centers or social clubs.						
Community-based rehabilitation (CBR)	According to World Health Organization explain that CBR focuses on enhancing the quality of life for people with disabilities and their families, meeting basic needs and ensuring inclusion and participation. CBR is a muti-sectoral approach and has five major components: health, education, livelihood, social and empowerment.						
Collaboration	Working towards and sharing a common goal.						
Down syndrome	A congenital disorder in which there is an extra chromosome on the 21 st pair. Common characteristics are short stature, cognitive impairment, speech and language disorders, congenital heart decfets, visual and hearing impairments, flat feet, lax ligaments, low muscle tone, joint instability, and, sometimes, atlantoaxial instability.						
Dry ramp	A pool access constructed into the pool deck outside of the pool.						
Disability Sport	As individuals with a disability have entered the sport world, various terms have evolved to represent their involvement as perceived by the able-bodied sport world. Among the more prevalent of these are 'handicapped sports, 'sport for the disabled, 'adapted sport', 'disabled sport', 'wheelchair sport', and Deaf sport.'						

Hydrotherapy	The treatment of disease, disability, and ill health using water as the therapeutic medium.					
Multiple disabilities	The existence of more than one impairment, such as cerebral palsy combined with blindness or spina bifida combined with mental retardation, which causes profound problems in learning.					
Wet ramp	A pool access connecting the deck directly to the pool.					

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Appendix 1 Ethics release form signatories sheet

Part 1: Questionnaire

	Question	Yes	No
1	Has the project proposal and ethical considerations in draft been completed and submitted to your first supervisor?	✓	
2	Will the project involve an intervention or change to an existing situation that may affect people and /or an evaluation of outcomes of an intervention?		✓
	If yes have participants been given information about the aims, procedure and possible risks involved, in easily understood language?	✓	
3	Will any person's position, treatment or care be in any way prejudiced if they choose not to participate in the project?		✓
4	Can participants freely withdraw from the project at any stage without risk or prejudice?	✓	
5	Will the project involve working with or studying minors (ie persons under 16 years of age)?		√
	If yes, will signed parental consent or in loco parentis be obtained?	✓	
6	Are there any questions or procedures likely to be considered in any way offensive or inappropriate?		✓
7	Have all necessary steps been taken to protect the privacy of participants and the need for anonymity?	✓	
	Is there provision for safekeeping of written data and video/ audio recordings of participants?	✓	
8	If applicable, is there provision for debriefing participants after the intervention or project?	✓	
9	If any specialized instruments, for example psychometric instruments are to be employed, will their use be controlled and supervised by a qualified practitioner eg a psychologist?	✓	
10	Will you need to put your proposal through an ethics committee related to your professional work?		✓

Part 2: Ethics release form signatories sheet

Student's name	Tang Wai Ming					
Qualification sought	Bachelor (Hons) in work Based Learning Studies (Recreation and sports Management)					
Your project title	Research project on swimming in HK for people with mental, intellectual and physical disabilities					
Name of programme adviser	Mr. Roland Liu and Mr. Geroge Choy					

I confirm that the information provided on the ethics release form is corre									
Student's signature									
Signature of programme advisor									

Appendix 2

問卷調查 Questionnaire (For Parents)

1) 你(子女)的歲數?

What is your (child) current age?

2) 你與參加者的關係?

What is your / this person's relationship to the child?

a) 母親 Mother

b) 父親 Father

c) 祖父母 Grandparent

d) 其他家庭成員 Other family member

e) 教練 Coach

f) 拒絕作答 Refused

3) 你認為參與體育運動有多重要?

How important is taking part in sport /fitness activity to you?

a) 非常重要 Very important

b) 少許重要 Quite important

c) 不是很重要 Not very important

d) 不是全部都重要 Not very important at all

e) 不重要 Neither important nor unimportant

4) 在最近 12 個月內有否參與其他康樂及體育活動 ?

During the last 12 months did you participate in any physical activities for exercise, recreation or sports?

a) 有 Yes

b) 沒 No

c) 從來沒有 Never

d) 不知道 Don't know

5)	這些活動	中是	否組織自一	一些	協會、	運動會	或其	L 他機	構 ?				
	Was any o	of th	is (activity)	orga	anized	by a clu	b, as	sociat	ion or ot	her ty	pe of c	organiza	ation?
	a)	有	(所有活動	動都	是)	Yes	, all	(organ	nized)				
	b)	有	(部份活	動是)	Yes	s, son	ne (or					
	c)	沒有	Ī			No							
	d) 不知道						n't k	inow					
		1111		-1									
6)			《構提供活動 lub, associa		or org	anizatio	n org	anize	d the (act	ivity)	?		
		學核			01 018		hool	,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•		
	,	體育					orts	club					
	ŕ					-							
	c) 其他組織 d) 香港弱智人士體育協會						(SAI						
	u)	ди		1475 1 4	V47 E		1011						
7)	你有否參	加學	2校所舉辦的	的體	育活動	力 ?							
	Do you pa	artici	ipate in orga	anize	ed sch	ool sport	ts?						
	a) 經	 常	Always	b)	常常	Often	c)	很少	seldom	d)	從不	never	
8)	你右丕矣	†ın ≿ ∔	- 匡 纽 紼 昕 5	短袖	的疊字	ぎ活動 9	,						
0)	你有否參加社區組織所舉辦的體育活動 ? Do you join in community activities?												
							2)	细小	aaldam	47	坐玉		
	a) 船	2. 币	Always	D)	市市	Otten	c)	1区少	seidom	a)	1件个	never	
9)	請於下列	選出	13 項你(兒	子或	(子女)	最喜愛	的體	育活重	肋				
	Please ind	licate	e the top 3 a	activ	ities y	our enjo	yed 1	nost.					
	a) 游泳						Swimming						
	b) 足球						Football						
	c) 賽跑或跑步d) 單車e) 乒乓球						Running Cycling Table tennis						
	f) 跳舞						Dance						
	g)	划艇					Row	ing					
	h)	非球					Voll	leybal	1				
	i)	篮球					Basi	ketbal	1				

j)) 滑冰	Ice Skating	
k	() 高爾夫球	Golf	
1)) 羽毛球	Badminton	
n	n)攀石	Sport Climbin	ng
n	0)行山	Hiking	
o) 滾軸溜冰	Roller Skate	
p	9) 保齡	Bowing	
1) 其他 (請說明)	Others	
Whic		· ·	先順序選出三個你認為合適的答案) take part in more sports or physical activities?
i	a) 容易得到相關的體育運動的資言	用 1	Easier access to information
	b) 足以承擔費用		Affordable
	c) 得到支持或鼓勵參與體育運動		More support for people with a disability
	d) 沒有什麼原因		Nothing
	e) 不知道或沒意見		Don't know
	f) 有不同體育會或團體提供體育以	運動服務	More local clubs and sport programmes for you to join
	g) 其他 (請加以說明)		Others
	參與游泳活動的次數? verage how often do the children sw	im?	
	a) 一星期多於二次	More than to	wice a week
	b) 一星期一次至二次	Once or twice	ce a week
	c) 一個月一次	Once a mont	th
	d) 一個月少於一次	Less than on	nce a month
	e) 從不游泳	Never swim	

10)

11)

How ma	ny years have you been in	nvolved in this sport ?
a) 小	、於一年	Less than 1 years
b)	二至五年	Between 2 – 5 years
c)	五至十年	Between 5 – 10 years
d)	多於十年	More than 10 years
13) 你從何處	這參加游泳課堂 ?	
Where d	o you participant in swim	nming lesson ?
a)	學校	School
b)	體育會	Sport club
c)	社區組織	Non government organization (community organization)
d)	以上皆是	All
e)	其他(請說明)	Others
a) \$5	50 -80 /hrs	
a) \$5	50 -80 /hrs	
ŕ	8 80 – 100 /hrs	
c) \$	S 100 -150 /hrs	
		Free of charge
e)	多於 \$ 150 /hrs	
f) ;	其他 (請說明)	
	具游泳活動後有否覺得夕	
Do you	ever feel conscious of you	卜形有所改變或改善 ? ur looks or body image when you go swimming ?
Do you a) 沒	ever feel conscious of you 有 No, never	
Do you	ever feel conscious of you 有 No, never ฤ時 Sometimes	

12) 你參與該運動活動多少年?

16)	教練或指導員是否切合參與者需要及期望?			
	The instructors/coaches are competent, professional, and meet my expectations.			
	a) 非常同意	Strongly agree		
	b) 同意	Agree		
	c) 沒意見	No opinion		
	d) 不同意	Disagree		
	e) 非常不同意	Strongly disagree		
17)	17) 課程是否切合參加者的期望 ?			
17)			ses that I was involved in meet my expectations?	
			ses that I was involved in meet my expectations.	
	a) 非常同意	Strongly agree		
	b) 同意	Agree		
	c) 沒意見	No opinion		
	d) 不同意	Disagree		
	e) 非常不同意	Strongly disagree		
18)	18) 你認為什麼因素影響人們拒絕參與游泳活動 ?			
10)	18) 你認為任麼因系影響人们拒絕多典研查指數? What factors affecting people not participation in swimming program?			
	a) 缺乏金錢		Insufficient budgets	
	b) 缺乏合適的設施		Lack of accessible facilities	
	c) 服務提供者或教經	東缺乏知識及技術	Service provider or coach lack of knowledge or skill	
	d) 沒有足夠合適的認	设備進入游泳池	Lack of accessible community transportation	
	e) 職員的態度不佳或	艾 受到不歡迎	Poor attitudes on the part of staff	
	f) 受到社區及市民的	」抗拒或不接受	Community resistance	

Lack of time

Lack of information to find a swimming class or coach

The limitation of physical condition

Rely on others for help

A fear of downing

No interested

Bad whether

n) 其他 ______ Others _____

g) 缺乏資訊參與活動

i) 身體或健康問題

j) 需要他人的幫助

k) 害怕水或浸親

1) 沒興趣

m) 天氣差

h) 沒有時間

19) 你認為什麼因素促使你參與游泳活動 ? 請於下列每項圈出一個合適數字

How important is each of the following reasons to you take part in swimming activity?

Please circle one number for each

- 1) 不重要 Not important
- 2) 有時重要 Somewhat important
- 3) 重要 Important
- 4) 非常重要 Very important

a) 使身體健康	For physical health or exercise	1	2	3	4
b) 改善及學習游泳技術	To improve mechanics of swim strokes	1	2	3	4
c) 能改善運動知識及技術	To improve sport skills or knowledge	1	2	3	4
d) 改善心肺功能及控制呼吸	Improve breath control and cardiorespiratory	1	2	3	4
e) 改善協調及平衡力	Improve balance and coordination	1	2	3	4
f) 感官上的刺激	Sensory stimulate	1	2	3	4
g) 能增加自我信心	To increase self-confidence	1	2	3	4
h) 能在水中自由活動	The freedom of movement	1	2	3	4
i) 能改善身體美感及觀感	Improve body image	1	2	3	4
j) 認識新朋友	To meet new people	1	2	3	4
k) 得到挑戰	For a challenge	1	2	3	4
1) 與他人比較及感競爭性	To complete against others	1	2	3	4
m) 身心得到放鬆	To relax	1	2	3	4
n) 愉快及感樂趣	For pleasure	1	2	3	4
o) 享受游泳活動	To enjoy nature	1	2	3	4
p) 有創造力	To be creative	1	2	3	4
q) 其他	Others (please specify):	_ 1	2	3	4

20) 你曾否聘請私人教練?

Have you ever or do you take private lessons?

- a) 有 Yes
- b) 沒 No

21)	透過什麼途徑聘請私人教練?
	Were the lessons offered by the coach or by an outside organization?
	a) 教練 Coach
	b) 游泳會或其他組織 (請加以說明) Outside source (please specify)
22)	你認為游泳運動對參加帶來以下什麼好處的發展?(請加以說明)
	How does participation in the swimming activity influence them?
	1) 身體方面的發展 / 改變
	Physical development or improvement
	2) 社交方面的發展 / 改變
	Social development or improvement
	3) 訓練感官上的發展
	Sensory training
23)	你認為(子女)是否喜愛及享受游泳班 ? (請加以說明)
	What do you think your child enjoyed the swimming program?
24)	你認為香港有否足夠的游泳班及適當的設施供給市民(有特殊需要人士)參加 ?
	What do you think about are there enough swimming courses/ lessons and suitable facility in HK?
25)	課程設計是否切合學員年齡或能力分組 ?
	Is there an age-appropriate or ability class available?
26)	泳池內是否太多人游泳?如泳池內太多泳客會否影響學員的專注力而影響學習進度?
20)	Are there too many people in the pool? Does the participant have difficulty maintaining attention?
	Are there too many people in the poor? Does the participant have difficulty maintaining attention?
27)	教練會否採用不同方法教導學員 ?
	Do instructors use a variety of teaching methods?
28)	學員有否收到充當的時間或機會回應教練的要求及指導 ?
_0)	Does learner or swimmer receive opportunities to respond to task requests?
29)	教練在進行教學時的策略會否因應不同學員的能力及需要而作出彈性處理或因材施教 ?
	Are task progressions flexible enough to accommodate individuals who may not have the ability to perform parts of
	the progression?
30)	你認為教練有什麼改善的地方?
50)	What could the coach improve upon?
	1 1

31)	你認為教練在教導學員時的方法適當嗎?			
	What did the coach do well?			
32)) 從家中到達游泳池上課時需要多久?			
	What do you think is a reasonable time to travel to swimming pool if you get there by:			
	乘私家車	乘公共交通公具	步行	
	Driving	Taking public transport	Walking	
33)) 你認為怎樣才是成功的游泳課堂 ?			
	In your opinion, what was the success of the swimming program?			
34))如有其他意見請加以說明 ? Do you have any other comments to make? Please list these below.			

Appendix 3

Questionnaires (For Special School)

1) Did your school organizes or joins any swimming group/ classes?
a) Yes
b) No
2) Did your school participate in local swimming event/ competition organized by the Hong Kong Sports Association for Physically Disabled (HKSAP), the Hong Kong Sports Association for the Mentally Handicapped (HKSAM) and the Hong Kong Sports Association of the Deaf (HKSAD)?
a) Yes (Please specific)
b) No
3) Will you consider holding any swimming courses?
a) Yes
b) No
4) What factor(s) will affects your school whether or not to hold swimming courses?
a) Lack of skills and knowledge
b) Lack of community resistance
c) Community resistance
d) Lack of budgets
e) Lack of information to find the coaches or swimming clubs
f) Lack of public transport near swimming pool
g) Others

5) What cost would you think is appropriate for swimming classes?
a) Free of charge
b) \$50 -80/hr
c) \$ 80-100/hr
d) \$100-150/hr
6) Is the swimming course joint with other swimming clubs or social organizations?
a) Yes (Please specify)
b) No
7) Do you think facilities of public swimming pools are suitable/sufficient for (people with special needs?)
a) Yes
(Please specify)
b) No
8) What are the major challenges in holding swimming class?
a) Lack of support
b) The coaches and staffs lack of knowledge and training to appropriately meet the need of People with disability
c) Lack of information to find the coaches
d) Lack of staff and volunteer
e) Lack of public transport near swimming pool
f) Difficult to hiring swimming pool
g) Lack of participants
h) The cost is expensive
i) Others

9) Do you have any other comments or suggestions?

Appendix 4

Interview questions with Coaches

- 1) What benefits can be gained from swimming activity?
- 2) What are the motivations for people participate in swimming activity?
- 3) What are factors that may affect people to participate in swimming activity?
- 4) How does participation in the swimming activity influence them?
 - a) Physical development or improvement
 - b) Social development or improvement
 - c) Sensory training
- 5) What do you think your students enjoyed the swimming program?
- 6) In your opinion, what was the success of the swimming program?
- 7) What are the major challenges in holding swimming class?
- 8) What do you experience as the major challenges in coaching the athlete disabled?
- 9) Do you think facilities of public swimming pools are suitable/sufficient for PWD?
- 10) Are there too many people in the pool? Does the participant have difficulty maintaining attention?
- 11) Do you have any other comments or suggestions?

Appendix 5

Informed Consent

Dear Sir / Miss

I am a student in Middlesex University, England and the School of Professional and Continuing Education (HKU SPACE), The University of Hong Kong. I would like to invite you to participate in a research project about Swimming in Hong Kong with people who are mental, intellectual and physical disabilities. I am interested in descript certain contemporary social concerns and problems related in people who are

intellectual, mental and physical disabilities participate in swimming activities.

I appreciate your giving time to this study, which will help me learn more about the effect of participation in swimming with disability people. If you have any questions, please feel free to call me at anytime. My e-mail address:

waimingttt@hotmail.com; mobile: 93253115.

Thanks you

Tang Wai Ming

Research title: Research project on swimming in HK for people with mental,

intellectual and physical disabilities

Aim and objectives

The research is to explore and analysis certain contemporary social concerns and problems related to people who have intellectual, mental and physical disabilities in participating swimming activities. The project is mainly focused on issues related to parents, coaches, Special School, National Governmental Organisations (NGOs) and

PWD related persons of all kind.

The aim of this research proposal:

To demonstrate and discuss the conditions of swimming industry as well as the benefit and value of swimming program for persons with intellectual, mental

and physical disabilities.

To identify the motivations for persons with disability joining swimming

activities and the benefits gained from their participation.

- Indicate the problems and challenges for holding a swimming program for PWD as well as surrounding people of PWD.
- To understand the structure and function of community and organizations to develop and organize swimming courses to persons with intellectual, mental and physical disabilities.

Right of participants

- Participation in the study will be voluntary;
- All participants may stop to participation in this study or interview and rescind consent at any time or may refuse to answer a specific question;
- All participants will have the right to withdraw their contributions and the option of destroying the interview transcripts and any accompanying notes;
- All participants have a right to add or alter any answer or idea communicated during the research process and interview;
- There should be no disadvantages or risks for you in taking part in this study;
- All documents detailing a participants name (such as informed consent form) will be stored in safe place until the end of the study, after which they also will be destroyed;
- Each interview will take place in a location of convenient to the participant; each participant works will be suggested as the ideal venue;

Declaration by the research project

I confirm that I have read and understood the information sheet and I am satisfied with the arrangements as set out above.

Signature of participant	Date
Researcher signature	Date

Appendix 6 (Letter to special school)

致: 學校體育老師

問卷: 香港有特殊需要人士在參與游泳運動的情況之調查

本人<u>鄧偉明</u>現於 Middlesex University, England and the School of Professional and Continuing Education (HKU SPACE), The University of Hong Kong. 修讀 工作為本學習榮譽文學士(康樂體育管理)課程。並需於修讀其間完成習作《香港有特殊需要人士在參與游泳運動的情況之調查報告》。

現誠邀閣下花十分鐘時間填寫問卷一份,所有搜集得來的資料只供學院評審之用,並於學術評審之後全部銷毀。請根據閣下的真實情況及感覺回答。如有任何問題可與本人聯絡查詢 (電話 93253115 ,電郵 waimingttt@hotmail.com),請給予支持。

敬啟者: 鄧偉明

二零一零年六月十七日

請完成問卷調查後回寄至 waimingttt@hotmail.com 或回郵致: XXXXXXXXXXXXX

附件: 問卷一份

回郵信封一個