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# STREAMLINING CHANGES:

# THE GROUNDED THEORY OF SCHOOLS IMPLEMENTING HEALTH-PROMOTING SCHOOLS

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Ph.D

The Hong Kong Polytechnic University

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**The Hong Kong Polytechnic University**

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# Streamlining Changes: The Grounded Theory of Schools Implementing Health-Promoting Schools

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A thesis submitted in partial fulfilment of the requirements

for the degree of Doctor of Philosophy

August 2017

# CERTIFICATE OF ORIGINALITY

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# ABSTRACT

## Background

Schools were regarded as a strategic setting in health promotion and health education for children since the 1980s. The World Health Organisation (WHO) Health-Promoting School (HPS) framework was widely adopted by primary and secondary schools globally since the 1990s. The framework has been promoted by some Hong Kong healthcare experts and universities in local public primary and secondary schools since the early 2000s, but evidence of its effectiveness is inconclusive. This situation leads to the call of international HPS scholars for more qualitative research in order to better realize the process of implementation, and to develop theoretical understanding of the HPS adapted in local contexts. Therefore, a grounded theory approach was adopted in the study in order to fill the knowledge gap.

## Aims of Study

The study aimed to generate a grounded theory from schools implementing and sustaining to be a HPS, or the status of a health-promoting institution.

## Research Question

The main research question of the study was: What is the process whereby schools become and sustain as health-promoting institutions?

## Methodology

The class grounded theory (CGT) was adopted in this study. A total of 22 interviews (10 individuals and 12 focused groups) were conducted. The participants were recruited by theoretical sampling. Verbatim transcripts of the interviews and memos were the main source of data for constant comparative analysis, with the supplementation of field notes from observations, school documents, and existing literatures relevant to the conceptualisation process.

## Findings of the Study

There were 42 participating individuals interviewed from 15 schools of the public sector in Hong Kong for this study. Overall, there were 8 principals, 5 vice-principals, 13 teachers, 9 school nurses (Registered Nurses), 1 social worker, 1 non-teaching staff (clerk), 3 parents (representatives of the Parent-Teacher

Association), and 2 primary school students (student health ambassadors) participated in the interviews. Both normal and special HPS and non-HPS schools were included in the study.

The study resulted in the Theory of Streamlining Changes (TSC) which outlined the main concerns of HPS schools in becoming a health-promoting institution, and non-HPS in conducting school health education and health promotion. The TSC explains beyond the process of schools implementing HPS, but organisational changes in general. Streamlining Changes emerged as the core category of schools in coping with the tensional triad. It is the path of the least resistance in accommodating organisational changes to achieve multiple goals of schools and schooling, including the education goals of students, the management goals of schools, and the legal duty of care such as students' health and safety. There were four subcategories (coping strategies) of the TSC: Triangulating/triangulating tensions, Strategising/strategic planning, Empowering/empowering leadership, and Cultivating/cultivating ethos. These subcategories (and their properties) were the coping strategies that schools adopted to address the tensional issues at different decisions levels which were, however, interconnected. The subcategories were hypothesised to

be capable to lessen (or to balance) the tensional triad because they helped to decentralise authority, absorb accountability, and promote autonomy which in turns directed school development and streamlined changes.

In essence, the TSC consisted of a stage-less three-dimensional model which demonstrated a holistic and integrated view of the coping strategies. The theory described and explained how schools intervening for smoother organisational change at different entry points in order to lessen the resistance of change as much as possible. Ideally, schools would adopt all strategies simultaneously, which is the whole-school approach of change. The schools may need to prioritise in reality based on not only the available time and resources, but also the existing tensional triad. It was hypothesised that when school performed evaluations based on the insights of tensional triad, the “best” or “next” strategy to be applied would be the one that addressing the predominant tensions among authority, autonomy, and accountability.

**Discussions**

The understanding and application of TSC might allow school members to implement whole-school organisational changes

more smoothly. Healthcare professionals might also be a catalyst in implementing and sustaining HPS, or health promotion and health education in the educational setting, which in turns fulfilling the goals of education. Further development and specialisation of school nursing as an advanced nursing practice in Hong Kong would require policy support. Intersectoral collaboration between education and health sectors would be important in promoting a healthy learning and growing environment for children. Limitations include the difficulties in finding non-HPS schools for theoretical comparison to enhance the most ideal theory construction. International primary and secondary schools were not successfully recruited in the study. Majority of the healthcare professionals worked in special schools and international schools only. These limitations may affect the scope of applicability of the TSC. Further research can be performed to develop the current TSC.

**Conclusions**

The TSC emerged as a middle-range grounded theory explaining the streamlining process of schools in implementing organisational changes, which was overshadowed by the tensional triad. The process of schools in becoming and sustaining as a

health-promoting institution depends on the latent and existing change process in the current education system. The TSC provides insights and may suggest directions for healthcare professionals to promote health-related knowledge and skills to children in the educational setting, and reinforcing intersectoral collaborations. The study shaded light on the future possibilities of policy development, professional practices, and research in nursing about school health.

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## LIST OF ACRONYMS

CAQDAS—Computer-assisted qualitative data analysis software

CDC—Centres for Disease Control and Prevention

CGT—Classic grounded theory

CSH—Comprehensive School Health

CSHP—Coordinated School Health Program

CUHK—Chinese University of Hong Kong

DH—Department of Health

EDB—Education Bureau

ENHPS—European Network of Health Promoting Schools

GT—Grounded theory

GTM—Grounded theory method

HA—Hospital Authority

HAS—Health Ambassador Scheme

HKHSA—Hong Kong Healthy Schools Awards

HPS—Health-Promoting Schools

HSC—Healthy School Charter

IUHPE—International Union for Health Promotion and Education

JCSH—Pan-Canadian Joint Consortium for School Health

NI—Naturalistic inquiry

PolyU—The Hong Kong Polytechnic University

QDA—Qualitative data analysis

SCAS—Social complex adaptive system

SGT—Straussian grounded theory

SHE—Schools for Health in Europe

SMI—School-based Management Initiative

TSC—Theory of Streamlining Changes

WHO—World Health Organisation

WHO CC—World Health Organisation Community Centre

# CHAPTER 1

# INTRODUCTION

## 1.1 Introduction

This thesis takes the form of a classic grounded theory (CGT) study. This general method generates middle-range theory to explain a core strategy adopted by participants to resolve their main concerns in the studied area. In this case, the concern involved the implementation of "Health-Promoting Schools" (HPS) in Hong Kong. The study resulted in the "Theory of Streamlining Changes" (TSC), which looks beyond the process of schools implementing HPS, to explain overcoming resistance to organisational changes in general. In this case, the tensional triad overshadowed the change process that schools overcame with the adoption of various coping strategies—the intertwining subcategories under Streamlining Changes.

## 1.2 Background

The World Health Organisation (WHO) Health-Promoting Schools (HPS) Framework is a "whole-school" approach framework for school health promotion. In other words, the

framework promotes intersectoral collaboration —between education and health sectors, governmental and non-governmental bodies, commercial and non-commercial corporations—in promoting health in schools. To do this, the framework emphasises the participation of all stakeholders; in that they engage in health promotion for children (WHO, 1996). Within schools, health promotion is provided by principals, teachers, students, parents and other members of the school community. Outside schools, others engaged in health promotion might be anyone in governmental or non-governmental bodies, such as policy-makers, politicians and health-care workers (WHO, 1996).

The framework contains six key components: (1) school health policies, (2) school physical environment, (3) school social environment, (4) community links, (5) action competencies for healthy living (or life skills), and (6) school healthcare and promotion services (or school health services) (WHO, 1996).

The initiation of the framework was based on the two principles: (1) morbidities and mortalities in adults could be prevented or reduced if people started to adopt more health-enhancing behaviours from childhood, and (2) children are better prepared for life by "focusing on their present health and wellbeing

and on their future as healthy and health-conscious adults” (WHO, 1996, p.1).

Today, “new morbidities” have emerged that are often non-communicable, but preventable through early health education and promotion in schools (Centers for Disease Control and Prevention [CDC], 2014). These include obesity, substance misuse, internet addictions, mental health and behavioural issues, which can be precursors to more severe illnesses and consequences, such as heart disease, stroke, diabetes, cancers and suicides in adulthood (CDC, 2014). In contrast, in the past, communicable diseases are regarded as “old morbidities” owing to advancements in treatments, preventive measures, healthcare systems, technology and research in developed countries (Bright Future, 2015). Sharing the global trend, Hong Kong is a modernised economics-driven city in which “new morbidities” are emerging, particularly those predisposed by social and economic factors (e.g. health disparities) (A. Lee et al., 2015; The Hong Kong Paediatric Society [HKPS] and The Hong Kong Paediatric Foundation [HKPF], 2015). In order to address the emerging health concerns in children (old and new morbidities) and the associated factors of health burdens (e.g. health disparities), the school has been regarded as an important setting for advancing

towards an environment progressing equity in health and education (CDC, 2015; WHO, 1998). Promoting health in childhood is thought to be more cost-effective than subsequent expenditure on curing diseases and other rehabilitative measures in adulthood (HKPS and HKPF, 2015). Local health care experts and scholars (e.g. A. Lee et al., 2015; R. L. T. Lee, 2011) agree that investing in health early in life by minimising the risks of obesity, non-communicable diseases, malnutrition and mental health issues is important, and that schools should be one arena for health promotion in children (HKPS and HKPF, 2015).

### 1.3 Current debates on HPS effectiveness evidence

School health promotion has been undergoing changes globally since the establishment of the WHO HPS framework. Despite the long history of its use in the USA, Canada, European countries, and countries in Southeast Asia-Pacific region (such as Taiwan), evidence regarding the effectiveness of HPS-based interventions/school health programmes has been mixed. According to Lister-Sharp et al. (1999) and Stewart-Brown (2006), this lack of inconclusiveness is due to the complexity of school-

based interventions and the insufficiency of research methodology. Each will be discussed in turn.

First, HPS-based school health programmes are usually multi-component interventions. The multi-component nature of the framework cannot perfectly fit intervention or quantitative designs, which often require the control of other variables (components). Nutbeam (1999) challenged the contemporary notion of imposing "evidence-based" studies on health promotion. He viewed health promotion outcomes (a range of measures used in defining "effectiveness") as hierarchies between short-term and longer-term impacts (p. 99), which are too complicated to be addressed by interventional designs.

In addition, health outcomes are affected by a range of determinants of health which impose direct and indirect impacts on health and make it difficult to determine tidy causal relationships (Nutbeam, 1999). In order words, the multi-component/level nature of the framework, if followed, requires complex interventions that often lead to difficulties in improving and evaluating all the outcomes of the HPS-based school health programmes (Lister-Sharp et al., 1999; Stewart-Brown, 2006). Thus any failure to support the effectiveness of an HPS-based school health

programme may be due to “premature” implementation before it has been developed sufficiently (Nutbeam, 1999). Last but not least, there is often a time lag between intervention and outcome improvements (short-term and longer-term), which means that measurement of those outcomes is impractical for judging the effectiveness of HPS-based school health programmes (Nutbeam, 1999).

There were comments and debates on the inadequacy and nature of outcome-based evidence (McQueen & Anderson, 2003). For example, “there is a lack of evidence on all the elements that contribute to an effective health promotion programme, or to the HPS approach as a whole. A holistic evaluation of programmes in local settings is needed” (Stewart-Brown, 2006, p. 4) and “longer and more intense programmes are needed” (Lister-Sharp et al., 1999, p.71) As observed by Lister-Sharp et al. and Stewart-Brown, the schools implementing the programmes (HPS-based and non-HPS-based) often alter the process of implementation; thus rarely do the school members follow the original “protocol” strictly. Therefore, process evaluation research has also been suggested to improve the quality of school health programmes.

In addition, school members usually focus on those outcomes that have a reasonable chance of success (Nutbeam, 1999), leading to “skewing” (narrowing and limiting) the implementation of a holistic framework, even if the schools claim to have followed it. Therefore, both qualitative and quantitative designs are required to provide evidence of the effectiveness of HPS-based school health programmes, but there is no single “right” method or “absolute” form of evidence (Lister-Sharp et al., 1999; McQueen & Anderson, 2003; Nutbeam, 1999; Stewart-Brown, 2006).

Although the framework has been adopted by many countries globally since its establishment, adoption in Hong Kong schools is rare. In the early 2000s, the Centre for Health Education and Health Promotion of the Chinese University of Hong Kong (CUHK) established the Hong Kong Healthy Schools Award (HKHSA) Scheme and the Healthy School Charter (HSC)—an accreditation scheme and school health initiative based on the framework. However, only about 5% of local kindergartens, primary and secondary schools have ever participated in the HKHSA Scheme and the HSC.

The framework is still fresh to the education sector, the health sector and the general public in Hong Kong. On the other hand, the School of Nursing of The Hong Kong Polytechnic University (PolyU) (2010) collaborated with the World Health Organisation Community Centre (WHO CC) to establish the health ambassadors scheme (HAS) which trains primary school students to be the health promotion leaders (health ambassadors) in schools. The Education Bureau (EDB) and the Department of Health (DH) organised different school-based initiatives through which schools promote healthy eating, active lifestyles and other health-related topics to students. All of these shape the context of Hong Kong in realising the HPS.

In addition, unlike the HPS in European countries, the US, Canada, and Southeast Asian countries that there are stationing school nurse services, school health promotion in Hong Kong rely mainly on the education sector, owing to the current education system, to coordinate school health. Hence, the implementation of the framework in these schools, and in Hong Kong relies heavily on the school personnel, especially the teachers.

In Hong Kong, the HKHSA Scheme team has been producing quantitative evidence of the scheme's effectiveness (e.g.

A. Lee, 2004, 2009; A. Lee, Cheng, & St Leger, 2005; M. C. S. Wong et al., 2009; Wong, Lau, & Lee, 2012); however, qualitative evidence is still insufficient (e.g. Hung, Chiang, Dawson, & Lee, 2014). As suggested by the framework, the implementation of HPS needs to be adapted to the local context in order to generate the most effective strategies in school health promotion (WHO, 1996). Therefore, much local evidence is needed to support and improve the implementation of the framework and school health promotion. The adaptation of the framework and the implementation process of the scheme are also not understood clearly.

## 1.4 The Study

The purpose of this research is to generate a grounded theory from schools implementing and sustaining an HPS or a health-promoting institution. This is based on research guided by the CGT (Glaser, 1978, 2015; Glaser & Strauss, 1967) and the main research question: *What is the process whereby schools become and sustain as health-promoting institutions?* The purpose of this CGT study is to develop a theoretical understanding of the HPS in Hong Kong for their strategy of success. It will provide

information and evidence for future adaptation of the emerging theory.

This study evolved from investigating the HPS process to discovering that the main concern of schools is to adopt the path of the least resistance in organisational changes. The Theory of Streamlining Changes (TSC) is a parsimonious grounded theory thate describes and explains the complex interactions and decision-making process of schools dictated by a latent pattern—the existing tensions among authority, autonomy and accountability—the tensional triad. The study then suggested means of lessening the tensions, including the provision of stationing school nurses in local public primary and secondary schools. Therefore, this study seems to shed light on the advanced practice development of the nursing profession, which is timely and much needed in this era of emerging health concerns.

## 1.5 The Context

The sample for this study was fifteen (15) Hong Kong schools in the public sector. These schools consisted mainly of normal primary schools and special schools that offered both primary and secondary education. Participants consisted of

principals, teachers (including vice-principals), school nurses (only available in special schools), social workers, a clerk, parent representatives and student health ambassadors. Participants were recruited to the study on the basis that they had experience in implementing HPS or school health education and promotion activities, and employed theoretical sampling. Both HPS and non-HPS were included in the study.

## 1.6 The Research Approach

Classic Grounded Theory was adopted to explore the main concerns of HPS and non-HPS schools in becoming a health-promoting institution in terms of health education and promotion. In-depth interviewing 10 individual interviews and 12 focus group interviews) following an initial topic guide was the predominant mode of data collection, although field notes were taken after every interview. Forty-two health promoters participated in the study. The principles of CGT were used to guide the data collection and analysis.

It is not uncommon of exploring participants' experiences of a health-sector initiative being implemented in the educational setting, but the in-depth investigation of the main concerns, the

latent pattern and the core strategy of resolving the concerns was complicated. The possibility of having more than one core category cannot be eliminated; this was also found during the study. The researcher remained as open as possible in order to allow any genuine concepts and a theory to emerge. Dedication to the learning and application of CGT requires that the researcher be philosophically neutral during the process of theory generation. Hence, the Theory of Streamlining Changes (TSC) is a parsimonious, holistic model describing and explaining the process of schools adapting to organisational changes by lessening the resistance as much as possible.

### 1.7 Structure of the Thesis

Following this introduction to the study, Chapter Two will present an initial literature review. This literature review aims to highlight the foundation of the development of Health-Promoting Schools (HPS), as well as the gap in current HPS practices. According to the CGT, this initial literature review should not force any preconceived conceptualisation, otherwise the resulting theory will not explain well the main concern of the area of study. Therefore, this literature review on one hand allows the researcher

to become familiar with the concept of HPS, and on the other hand reminds the researcher of any possible bias or assumptions in current HPS practices and research.

Chapter Three will discuss methodological issues relating to the study, including the principles and debates of CGT. The process of data collection, sampling and analysis will also be described in detail.

Chapter Four will present the findings of the study, particularly the whole conceptualisation process from the original investigation of HPS to the final conceptualisation of the core category, subcategories and properties. As a whole, the Theory of Streamlining Change (TSC) will be formulated into a parsimonious, holistic model.

Chapter Five will discuss the application of the TSC with further comparison to the relevant literature, including some existing similar models in school health promotion. In particular, emphasis to understand the nurses' role in the process will be discussed.

Chapter Six concludes the thesis by presenting issues that arise from it and highlighting the important implications and recommendations of the TSC for practice, policies and research in

the nursing profession. Although this study was initiated in an educational setting, the findings are important for healthcare professionals, such as nurses, for better planning and implementing of health education and promotion in schools. In addition, this study is important for intersectoral and multidisciplinary collaboration in health education and promotion. Thus, issues that may go beyond nursing will also be highlighted.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 Introduction

Health promotion needs to address chronic and public health problems from what Kumar and Preetha (2012) called the "triple burdens" of communicable diseases, new and re-emerging diseases, as well as an unprecedented rise in non-communicable chronic diseases. Globalisation of these burdens changes a society's cultural, socio-political, economic and environmental ways of being. Hence, health and wellbeing are not only determined by individual factors (such as genetics), but also by many factors inside and outside of the healthcare system, including socioeconomic conditions, demographic and family patterns, the cultural and social fabric of societies, socio-political stability, the economic climate, and environmental changes. The dynamics between health and wellbeing and the determinants of health have caught the attention of healthcare professionals, scholars and policy-makers, as evidenced in many global health initiatives (such as the Alma-Ata Declaration in 1978 and the Ottawa Charter in 1986). As such, a holistic approach through individual and

community empowerment and inter-sectoral action and leadership in health promotion is suggested. School health programmes, through simultaneous education and health promotion, are potentially one of the most cost-effective strategies in health promotion and disease prevention.

Schools have traditionally been regarded as an important setting for health promotion, and this has been reinforced by the World Health Organisation (WHO) Health-Promoting Schools (HPS) Framework (1996). The framework has been adopted globally by government and non-government bodies in developing school health policies and practices. In particular, awarding schemes based on the framework have been an important strategy in promoting Health-Promoting Schools (HPS).

In this chapter, an initial literature review will be presented. As guided by CGT (Glaser, 1978, 2015; Glaser & Strauss, 1967) (see Chapter 3: Design of Study and Analysis of Data), the researcher should postpone the pre-study literature review before going into the studied field, in order to remain "as open as possible to discovery and to emergence [*sic*] of concepts, problems and interpretations from the data" (Glaser, 1998, p. 67). However, an initial literature review could be performed with a data collection

approach: The literature is part of the data for constant comparison (with the data obtained from field observation and interviews) to identify the core strategy of participants in solving the main concerns (latent patterns) of the studied area, and finally to generate a theory which will later comparison with the literature (Glaser, 1998). Therefore, the researcher conducted this initial literature review with these principles in mind and was wary of forcing conceptualisation.

Therefore, in order to familiarise myself with the development of HPS and its impacts, I set forth review directions for this initial literature review: (1) the foundation of the development of HPS, (2) the essential underlying concepts of HPS, and (3) the impact of HPS worldwide, including in Hong Kong.

The following sections will describe the foundation of the development of the WHO HPS framework (1996), as well as its impact and adaptations worldwide, including in Hong Kong. Award schemes based on the framework will also be explored, worldwide, and in Hong Kong.

## 2.2 Foundations for the Development of the WHO HPS framework

In the pathway of developing the framework, various global health movements have been initiated by the WHO, and supported by adoption and adaptation in different degrees by different places. These global health initiatives advocate changes in public health practices and policies, including those concerning children's health and school health.

**2.2.1 The Declaration of Primary Health Care at Alma-Ata.** In 1978, the WHO reinforced the importance and urgency of primary health care to the globe in the Declaration of Alma-Ata (WHO, 1978). The Declaration of Alma-Ata emphasises a system approach in primary health care, which should involve and demand collaborative efforts not only from the health sector, but also from other related sectors such as "agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors" (WHO, 1978). Nevertheless, primary health care efforts in the community, including in schools, had only expanded to a limited degree partially owing to the dominance of the medical model in health systems worldwide

(Gillam, 2008; Lawn et al., 2008; Walley et al., 2008). (This phenomenon alerted the researcher to be mindful of any existing bias owing to previous training as a Registered Nurse).

In these early decades, as also noted in on-going literature, the so-called school-based health education programmes were conducted by health care professionals such as dentists, doctors, nutritionists and nurses, who often came to the school as an "expert/outsider" (Roder & Sundrum, 1976; Yeo & Walsh, 1987). Although there were many programmes targeted at involving and training teachers, health workers and even students to facilitate the implementation of school-based health education programmes (such as Hazell, Henry, Francis, & Halliday, 1995; Iyengar, Grover, Kumar, Ganguly, & Wahi, 1992; Krishnamurthy & Samuel, 1987; Nyandindi, Milen, Palin-Palokas, & Mwakasagule, 1995; Nyandindi, Milen, Palin-Palokas, & Robison, 1996), most of the intervention research relied on self-reported evaluations on knowledge gain, behavioural change and attitude change (Lloyd et al., 1983). Rarely did they investigate the effect of the perceptions and participations of teachers and students on the programme outcomes (St Leger & Nutbeam, 2000). (This phenomenon reminds the researcher that multiple perspectives on health promotion

programmes should be respected and addressed).

Although school health education programmes conducted in a fragmented manner demonstrate “selective primary health care” (Cueto, 2004) rather than a comprehensive and system approach suggested by the WHO) in the establishment of the Declaration at Alma-Ata, the WHO maintains its position in promoting “Health-for-All” through intersectoral action (WHO, 1978, 1997a), which continues to be an important foundation of Health-Promoting Schools (HPS). Schools continue to be an important non-health setting in primary health care, regardless of the effectiveness of the health education/promotion programmes.

To conclude, the Declaration of Alma-Ata advocated for a more collaborative approach in universal primary health which should be multi-sectoral. The HPS is a health sector approach implemented in an educational setting. This reminded the researcher to be mindful of a possibility: the implementation of HPS in Hong Kong is education-sector-led rather than health-sector-led. In addition, the extent of health-sector involvement in the HPS may be questionable.

**2.2.2 The Ottawa Charter for Health Promotion.** In 1986, the WHO established the Ottawa Charter for Health Promotion as the foundation of the WHO HPS framework. The Ottawa Charter set forth a modernised definition for health promotion:

> "Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment." (WHO, 1986, para. 3)

The Ottawa Charter has been regarded as one of the most influential initiatives in changing research and health promotion practice (Green & Tones, 2010). The five Ottawa Charter strategies are similar to the six key components of the WHO HPS framework: (1) to build healthy public policy, (2) to create supportive environments, (3) to strengthen community action, (4) to develop personal skills, and (5) to re-orient health services. The five strategies have been applied in different health promotion settings, including schools. Robertson and Minkler (1994)

scrutinised the impacts of the Ottawa Charter and termed it "the new health promotion movement". The movement had four main features, as suggested by Roberton and Minkler (p. 296):

1. Broadening the definition of health and its determinants to include the social and economic context within which health (or non-health) is produced.
2. Going beyond the earlier emphasis on individual lifestyle strategies to achieve health to broader social and political strategies.
3. Embracing the concept of empowerment (individual and collective) as a key health promotion strategy.
4. Advocating the participation of the community in identifying health problems and strategies for addressing those problems.

These four features yield important insights in conceptualisation related to HPS: (1) the Ottawa Charter (thus the HPS) emphasised an ecological approach in health promotion, involving individual, social, economic, and political levels; (2) utilisation of the concept of empowerment through "community

participation" and the utilisation of community resources; and (3) schools regarded as a kind of resource by community health workers, such as being adopted a setting in primary health promotion. Therefore, the HPS should be closely linked with the community and the health sector, rather than an isolated initiative.

This conceptualisation reminded the researcher that if one regards schools as a resource for addressing "wider" community health concerns, one may also risk assuming that schools' core function is expanded beyond education. In other words, the boundaries of education, school and schooling may become blurred. However, as guided by CGT, one should avoid any preconceive that the concerns of healthcare professionals (such as the researcher) are consistent with the concerns of educational professionals (such as teachers).

**2.2.3 Jakarta Declaration of the Fourth International Conference on Health Promotion.** While the Ottawa Charter is the foundation of the WHO HPS framework, the Jakarta Declaration can be seen as a "sister initiative", owing to its highly similar notions. Further emphasising the social and political means and the concept of empowerment in the Ottawa Charter, the Jakarta

Declaration advocates health as a basic human right (WHO, 1997b). The main theme of the Declaration stands out so as to maintain a sustainable eco-health system in which the gap of health inequities in developed and developing countries is addressed. While reemphasising the strategies from the Ottawa Charter, the Jakarta Declaration also highlighted the importance of a participant-oriented approach. For example, it reads “participation is essential to sustain effort. People have to be at the centre of health promotion action and decision-making processes for them to be effective”(WHO, 1997b, Health promotion makes a different, para. 3, bulletin 3).

The notion of “community empowerment” has not been abandoned, but more specifically mentioned as “increase community capacity” and “empower the individual” (WHO, 1997b, “Priorities for health promotion in the 21st Century”, bulletin 4). Therefore, schools, or HPS, become the mediation of the micro (individual lifestyles) and the macro (economic, political, cultural and organisational forces) for enacting definitions and applications of health and health promotion (Robertson & Minkler, 1994). The Declaration also emphasised that the five Ottawa Charter strategies (and hence the six key components of the WHO

HPS framework) should be used in combinations; sole application is much less effective in health promotion.

Last but not least, the Declaration calls for multi-sectoral (governmental and non-governmental; public and private) investments for health in terms of money in primary health promotion while maintaining the position of health as a mean, rather than the end goal, for social and economic development (WHO, 1997b). It consolidates the "setting approach", hence the schools is maintained as an important place for public health.

The Jakarta Declaration yielded additional conceptualisations of the HPS: (1) the HPS adopts the concept of human rights, such as equity; (2) health is not the end goal of life, but means to achieve other life goals, including the educational attainment of individuals; and (3) the six key components of the WHO HPS framework are supposed to be adopted simultaneously. These conceptualisations further reminded the researcher that the implementation of HPS may concern not only the health of students and school personnel, but also other "higher" concerns, values and achievements in life. Therefore, the researcher needs to stay open-minded to discover the true concerns of participants, rather than assuming that HPS is just about health.

**2.2.4 Global school health initiative.** The global school health initiative was launched in 1995 and revised in 1998 to advocate for more HPS, so as to improve the health of students, school personnel, families and other members of the community through schools (WHO, 1998b). The initiative advocates research to describe the nature and effectiveness of school health programmes (e.g. Lister-Sharp, Chapman, Stewart-Brown, & Sowden, 1999; Stewart-Brown, 2006). The WHO also prepared a series of documents to further discuss the components essential to HPS (WHO, 1996a, 1996b, 1996c, 1999a, 2000, 2003b, 2005). Various programmes addressing major health issues in children were promoted as the entry points and important strategies to develop Health-Promoting Schools, such as healthy nutrition (WHO, 1998a), prevention of tobacco and alcohol use (WHO, 1999c, 2003a), prevention of violence (WHO, 1999d), oral health promotion (WHO, 2003d), family, sexual and reproductive health (WHO, 1999b, 2003c), sun protection (WHO, 2002), and physical activity in school promotion (WHO, 2007).

These initiatives propelled impacts and partnerships around the world, such as the creation of nation-wide HPS networks and

alliances: the European Network of Health Promoting Schools (ENHPS) (Burgher, Rasmussen, & Rivett, 1999), which later reformed as the Schools for Health in Europe (SHE) network (SHE, 2007), and the International Union for Health Promotion and Education (IUHPE) (IUHPE, 2009, 2010). In recent decades, more collaboration has been established among the WHO, the Centers for Disease Control and Prevention (CDC) in the United States, the Pan-Canadian Joint Consortium for School Health (JCSH) in Canada, and other governments in different countries, such as in Africa and the Asia-Pacific Region through WHO CC, United Nations agencies, local governments and professional associations (WHO and JCSH, 2007). Figure 1 shows the historical development of major health promotion initiatives and international networks for HPS.

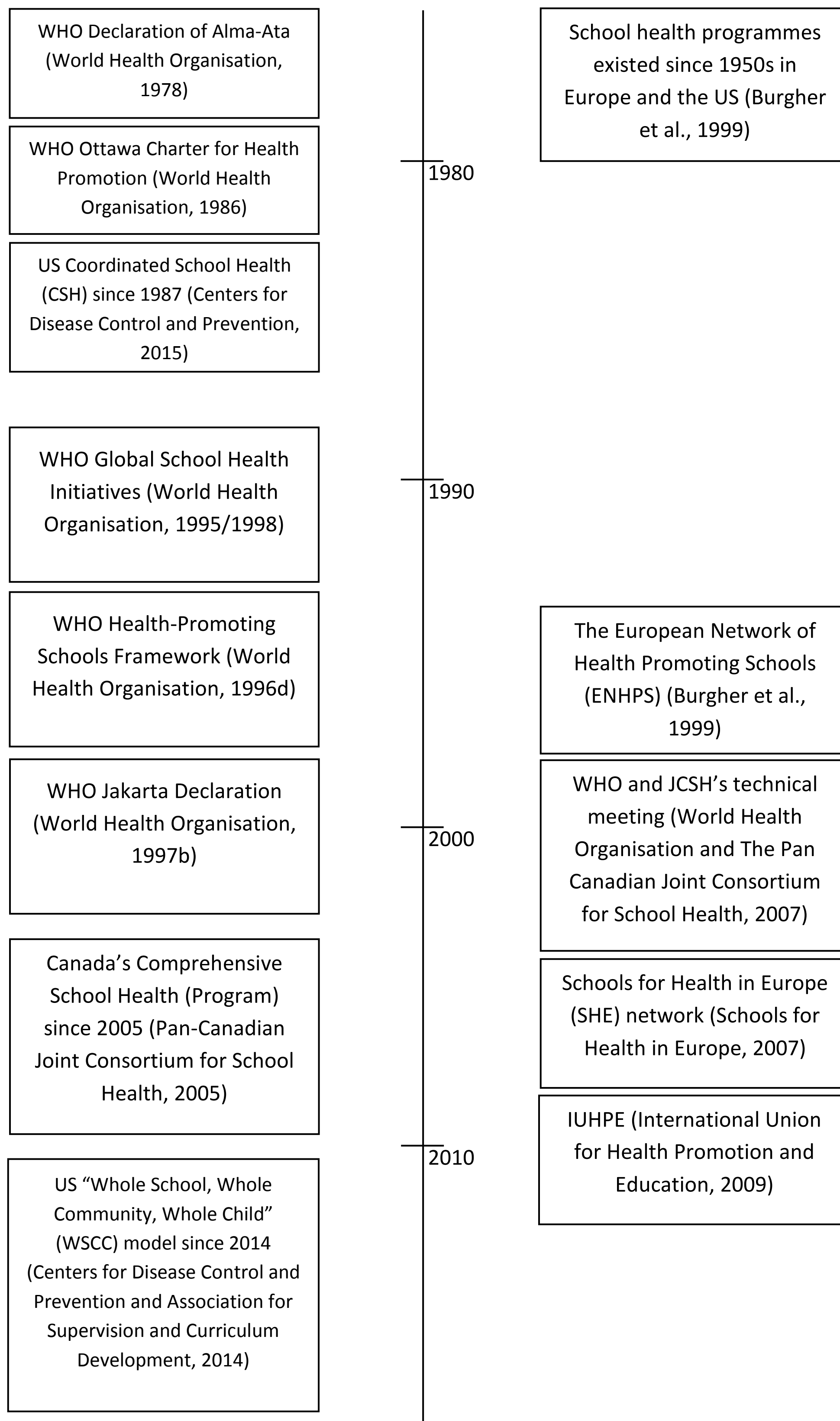
The international collaboration is evidence of government priorities worldwide. However, the absence of government involvement in the implementation of HPS in Hong Kong may be due to hidden reasons that the researcher is required to discover if it emerges as a relevant issue from the participants.

To conclude, the HPS is rooted in various WHO global health initiatives, namely the Declaration of Alma-Ata (1978), the

Ottawa Charter (1986), the Jakarta Declaration (1997) and the Global School Health Initiative (1995). The underlying concepts of HPS include intersectoral collaboration, a participatory approach, schools as a resource for primary health care, embracing an ecological approach to health promotion, and valuing a modern definition of health (and health promotion) and human rights.

Last, to point out, the HPS has been adopted globally as a health promotion strategy in schools, and is emphasised and supported by local governments in many western countries, such as Europe, the United States, Canada, Africa, and South-east Asia. Various international networks and unions have been established to continue to support the realisation of HPS in the 21st century. The next section further describes the impacts and adaptations of the WHO HPS framework.

Figure 1
Timeline for Major Health Promotion Initiatives and International Networks for HPS.



## 2.3 The Worldwide Impacts and Adaptations of the WHO HPS framework

Long before the establishment of the framework in 1995, school was regarded as an important setting in health education and promotion for children. Vaccination, weight management, and sexual and reproductive health education were the “pioneers” of school health programmes. Despite various efforts in HPS research (A. Lee, 1999, 2009a, 2009b; A. Lee, Cheng, Fung, & St. Leger, 2006; A. Lee, St. Leger, & Moon, 2005; A. Lee, Tsang, Lee, & To, 2000; St. Leger, 1998, 2004, 2006), the outcomes and efficiency are inconclusive (Langford et al., 2014; Lister-Sharp et al., 1999; S. Stewart-Brown, 2006), partially owing to the open and complex school systems in which experimental-control interventions are difficult to follow and evaluate (Keshavarz, Nutbeam, Rowling, & Khavarpour, 2010); and the implementation of HPS is extremely complex (Nutbeam, 1999, 2000; Whitehead, 2004, 2011).

Many researchers started to seek qualitative methods to evaluate the effectiveness of these programmes, so as to inform better practices and policies that support, improve and sustain health promotion in children (IUHPE, 2010; Mohammadi, Rowling, & Nutbeam, 2010; St Leger & Nutbeam, 2000). The

major adaptations of the framework worldwide are shown in Table 1.

**2.3.1 Related initiatives, award systems and pilot projects of HPS worldwide.** Since its establishment, the WHO HPS framework has informed trends in the implementation and adaptation of HPS-related initiatives in European countries, the United States, Canada, and the Asia-Pacific Region, such as Australia, Singapore, Taiwan and Hong Kong (Barnekow et al., 2006; Barnekow-Rasmussen, Rivett, & Burgher, 1999; Chen & Lee, 2016; St. Leger & Nutbeam, 2000). As stated in the WHO Ottawa Charter, "health promotion strategies and programmes should be adapted to take into account differing social, cultural and economic systems" (WHO, 1986, Ottawa Charter, Mediate, para. 2). These adaptations lead to the emergence of different HPS models. As such**,** there are four major HPS models: (a) WHO HPS framework, (b) CSHP, (c) CSH, and (d) the Focusing Resources on Effective School Health (FRESH) framework (Table 2). While the names vary, the basic concepts are all based on the WHO HPS framework.

The following summarises the origins of these four models.

In the US, the CDC expanded their traditional school health promotion strategy to a state-level Coordinated School Health Program (CSHP) (CDC, 2011) in the late 1980s.

In Canada, the JCSH was established in 2005 to promote Comprehensive School Health (CSH) which is characterised by intersectoral partnership between health and education sectors (JCSH, 2015).

In Europe, the ENHPS was established to group together the efforts and resources from different European countries in 1992. The network was reformed in 2007 to become the SHE network, to continue working on school health promotion (SHE, 2007).

In Australia, a variety of health programmes were formulated in different state and territorial governments, based on the WHO HPS framework. For example, MindMatter emphasises the mental health of the school children (Principal Australian Institute, 2012). In 1997, the non-governmental Australian Health Promoting Schools Association was commissioned by the Commonwealth Department of Health and Family Services to develop the National Framework for Health Promoting Schools (2000-2003) (Australian Health Promoting Schools Association,

2001, 2012), signifying governmental partnership for HPS. Nowadays, the Australian Health Promoting Schools Association and the Western Australia Health Promoting Schools Association continue as advisory agencies on school health promotion in Australia (Australian Health Promoting Schools Association, 2001, 2012; WA Health Promoting Schools Association, 2013).

Efforts made in school health promotion in Europe, Australia, the USA, Canada and other countries converged through international collaboration and networking, such as via the IUHPE (IUHPE, 2009, 2010, 2012) (Table 1). Countries that successfully implement the framework regard local, regional and international networks and partnership as a crucial step in initiating and sustaining HPS (Aldinger & Vince Whitman, 2009).

Awards for HPS are another common strategy alongside school initiatives. Award systems related to HPS usually carry names such as Healthy School Awards and Health-Promoting School Champions alike. They serve to promote and encourage schools to become and sustain health promotion. Some designated schools have names that are integrated with other popular concepts, such as Green Schools and Sustainable Schools. Some of them have been promoted by their local governments, as well as those in

Asia. For example, in Singapore, the Health Promotion Board established Championing Efforts Resulting in Improved School Health Award in 2000, based on the WHO HPS framework. The award encouraged schools to develop comprehensive school health promotion programmes nationally in order to nurture the physical, emotional, and social health of the school community (Health Promotion Board, 2012). Nation-wide promotion attracted about 90% of the schools in Singapore, with over 450,000 students participating in the CHERISH Award in 2008 (Health Promotion Board, 2012; Whitman & Aldinger, 2008).

Implementing a nation-wide accreditation and honouring system is not always immediately feasibly in places with fewer resources and supports. Experts in HPS have helped in conducting pilot projects to promote the HPS concept. For example, mainland China was one of the piloting countries that started implementing HPS in 2008 (Aldinger, Zhang, Liu, et al., 2008). Xu, Pan, Lin, et al. (2000) launched an HPS pilot project in Fujian province, China, targeting parasitic helminth infection prevention. The infection rates were successfully reduced in four rural primary and secondary schools with a population of 6,188 students. In another instance, Ma, Geng, Xia, et al. (2002) successfully conducted

tobacco prevention in four schools, and Xia, Zhang, Tang, et al. (2004) implemented a healthy nutrition project in six schools in Zhejiang province. These pilot projects suggested that specific training and concrete guidelines were needed to attain HPS, and that HPS evaluation standards would have to be modified for local contexts.

In Taiwan, the concept of HPS has been also widely accepted by schools since 2001 (Chang, Liu, Liao, et al., 2012; Huang, 2011). The Taiwan government officially launched the HPS scheme in 2010 (Health Promoting School, Taiwan, 2012; Huang, 2011). A study using an action-research design reported that schools participating in the HPS scheme showed a significantly higher level of efficacy than other schools in practising healthy lifestyles. The research also suggested that although the Taiwan government officially integrated the concept of HPS into the school health policy, the HPS concepts or evaluation standards were not easily comprehensible or put into practice efficiently if there was inadequate training for health promoters and school personnel.

The development of the HPS in Taiwan grew fast, with official support from the local government. The government advanced the HPS initiative to the whole region with over 3,000

schools joining in 2008. In 2009, resource for HPS were centralised by the establishment of the “Health-Promoting School Centre”. More recently, in 2010, the Ministry of Education in Taiwan advanced an evidence-based second-generation of HPS mechanisms—the Bureau of Health Promotion's “Health-promoting School Certification and International Cooperation Programme” (Health Promoting School, Taiwan, 2012; Huang, 2011). The ‘one school, one nurse’ school health policy in Taiwan has been established with the full support of the government and various non-government organisations (NGOs), such as the National School Health Nursing Association of the R.O.C. and the School Nurses Association of the R.O.C. (Huang, 2011).

In conceptualisation, governmental support and initiation are crucial in order to promote and sustain the realisation of HPS, as suggested by the above examples of adaptations.

Table 1
Health-Promoting Schools Framework Adopted Worldwide

| Area (reference) | Network/ Partnership for School Health Promotion | Key Contributing Country | Framework | Description |
|---|---|---|---|---|
| Africa<br><br>(Cossa, 2009; Damons & Abrahams, 2009; Odujinrin, 2009; Onyango-Ouma, et al., 2009) | Under the umbrella of the World Health Organisation Regional Office for Africa (WHO AFRO) | Kenya<br>Mauritius<br>Nigeria<br>South Africa | WHO HPS Framework<br><br>Focusing Resources on Effective School Health (FRESH) Framework | African countries started to incorporate the concept of HPS in 1997, with adaptation to their unique conditions.<br><br>In Kenya, a school health programme (adopting the HPS concept) was conducted from 1999-2002 in nine primary schools. Since then, most health projects have been conducted with support from the WHO, UNICEF, UNESCO and the World Bank. For example, the Sustaining and Scaling School Water, Sanitation and Hygiene Plus Community Impact (SWASH+ Project) and the National Deworming Program.<br><br>In South Africa, the Sapphire Road Primary School has adopted the HPS six pillars (key factors) and added "Quality Education" as one pillar to form the Intsika7 (seven pillars). |
| The US and Canada (continued) (Bechhofer, et al., 2009; Centers for Disease Control and Prevention, 2011) | The US Centers for Disease Control and Prevention (CDC)<br><br>The Health School Network (HSN) within the US | US (continued) | Coordinated School Health Program (CSHP) (US) | The US government launched the Safe Schools/Healthy Students Initiative in 1980s. In the early 1990s, the CDC expanded to build the state-level CSHP. |

Table 1 (continued)
Health-Promoting Schools Frameworks Adopted Worldwide

| Area (reference) | Network/ Partnership for School Health Promotion | Key Contributing Country | Framework | Description |
|---|---|---|---|---|
| (continued) The US and Canada<br><br>(Connecticut State Department of Education, 2007; Focusing Resources on Effective School Health, 2000a, 2000b, 2000c; MacDougall & Laforêt-Fliesser, 2009; Meresman, 2009; Meresman & Sanabria, 2009; Pan-Canadian Joint Consortium for School Health, 2012a, 2012b) | World Health Organisation (WHO)<br><br>Pan American Health Organisation (PAHO/WHO)<br><br>United Nations Children's Fund (UNICEF)<br><br>United Nations Educational, Cultural & Scientific Organisation (UNESCO)<br><br>The World Bank | Brazil<br>Canada<br>Nicaragua<br>Uruguay<br>(continued) | Comprehensive School Health (CSH) (Canada)<br><br>Focusing Resources on Effective School Health (FRESH) Framework<br><br>WHO HPS Framework | In September1995, based on the experiences from Europe and North America, supported WHO to hold an Expert Committee Meeting on Comprehensive School Health Education and Promotion in Geneva, Switzerland.<br><br>Since 2001, Nicaragua is promoting the Friendly and Healthy School Initiative based on the FRESH framework with help from United Nations agencies.<br><br>Dedicated to collaborating efforts and partnerships with WHO in the implementation of HPS and other school community programmes since 2007.<br><br>Uruguay incorporates the HPS components into its Education for Life and Environment [*Educaciòn para la Vida y el Ambiente (EVA)]* |

Table 1 (continue)
Health-Promoting Schools Frameworks Adopted Worldwide

| Area (reference) | Network/ Partnership for School Health Promotion | Key Contributing Country | Framework | Description |
|---|---|---|---|---|
| Europe | World Health Organisation Regional Office for Europe (WHO/Europe) | Germany<br>Poland<br>UK | WHO HPS Framework | The concept of school health promotion built in the 1980s under the Council of Europe (CE) pilot project "Education for Health". |
| | European Network of Health Promoting Schools (ENHPS) (1986-2007) | | | ENHPS—from 1986 until 2007, the joint work of three parties, the WHO Regional Office for Europe, the European Commission (EC), and the CE, formed the ENHPS |
| | Schools for Health in Europe (SHE Network) (since 2007) | | | SHE Network—since 2007; led by a WHO Collaborating Center—the Dutch Institute for Health Promotion and Disease Prevention (NIGZ) |
| Eastern Mediterranean (Al Matroushi, 2009; Al Mulla Al Harmas Al Hajeri et al., 2009; Mohamed & Helmi, 2009) | World Health Organisation Eastern Mediterranean Regional Office (WHO/EMRO)<br>UNICEF<br>UNESCO | Bahrain<br>Oman<br>United Arab Emirates (UAE) | WHO HPS Framework | Bahrain's Comprehensive School Health incorporates the WHO HPS model mandated by the government. Oman's Ministry of Health and Ministry of Education cooperated with the WHO/EMRO, UNICEF and UNESCO to implement the programmes and train professionals such as school health nurses. The UAE established an HPS Coordinating Committee and selected schools have joined the HPS network. |

Table 1 (continue)
Health-Promoting Schools Frameworks Adopted Worldwide

| Area (reference) | Network/ Partnership for School Health Promotion | Key Contributing Country | Framework | Description |
|---|---|---|---|---|
| South and Southeast Asia (continue)<br><br>(Aldinger, 2009; Choudhuri, et al., 2009; A. Lee, 2009; Phoungkham, et al., 2009) | WHO Western Pacific Regional Office (WHO/WPRO) | China<br>Hong Kong<br>India<br>Lao PDR<br>(continue) | WHO HPS Framework | In China, Zhejiang Province was one of the first provinces implemented programmes based on HPS framework. With helps from WHO, different pilot projects started to yield positive results since 1996, and gained "much attention from the leaders" of the government.<br><br>In Hong Kong, the Healthy Schools Award (HKHSA) acts as the pioneer in promotion, implementation and evaluation of HPS framework since 2001.<br><br>In India, The Health Oriented Program and Education (HOPE) Initiative shaped itself on the lines of HPS, with the helps from UNICEF and WHO, to promote the concepts of HPS in the country since 2004.<br><br>Lao PDR's Government set up the first School Health Policy paper in 2005 in which an accreditation system has been established with the support from WHO, Japan International Cooperation Agency (JICA) and UNESCO. |

Table 1 (continue)
Health-Promoting Schools Frameworks Adopted Worldwide

| Area (reference) | Network/ Partnership for School Health Promotion | Key Contributing Country | Framework | Description |
|---|---|---|---|---|
| (continue) South and Southeast Asia<br><br>(Health Promotion Board, 2013; Huang, S. Y., 2011; Nga, et al., 2009; Vaithinathan, et al., 2009) | WHO/WPRO | (continue) Singapore<br>Taiwan<br>Viet Nam | WHO HPS Framework | Singapore's Government established the Championing Efforts Resulting in Improved School Health (CHERISH) Award, implementing the HPS national-wise since 2000. The Health Promotion Board set up the School Health Promotion Grants, subjected to application for the schools currently participating in the Joint HPB-MOE CHERISH Award since 2003.<br><br>Taiwan government implementing the HPS national-wise to schools in all levels. Three international conferences have been conducted in Taiwan within 9 years.<br><br>In Viet Nam, encouraging jointed efforts from the Ministries of Health and Education in projects implementing the Vietnamese HPS model with four key components has been found. |

Table 1 (continue)
Health-Promoting Schools Frameworks Adopted Worldwide

| Areas (reference) | Network/ Partnership for School Health Promotion | Key Contributing Country | Framework | Description |
|---|---|---|---|---|
| Western Pacific<br><br>(Australian Health Promoting School Association, 2001, 2012; International Union for Health Promotion and Education, 2009, 2010, 2012; Principal Australian Institute, 2012; WA Health Promoting Schools Association, 2013) | Australian Health Promoting School Association<br><br>International Union for Health Promotion and Education (IUHPE), 2009, 2010, 2012<br><br>Western Australia Health Promoting School Association | Australia<br>- Western Australia<br>- Queensland<br>- New South Wales<br>- Western Australia<br>- Victoria | WHO HPS Framework<br><br>MindMatters | Each State and Territory government in Australia formulated a variety of initiatives based on the WHO HPS framework. In 1997, the Australian Health Promoting Schools Association was commissioned by the Commonwealth DH and Family Services in 1997 to develop the National Framework for Health Promoting Schools (2000-2003).<br><br>The Australian government established the national mental health initiative for secondary schools named MindMatters. More than 80% of secondary schools in all states of Australia are involving in MindMatters. |

Table 2

Core Components and Emphases in CSH, CSHP, HPS and FRESH Frameworks

| Frameworks | | | |
|---|---|---|---|
| CSH (Canada) | CSHP (US) | WHO HPS | **FRESH** |
| Core Components | | | |
| *4 Pillars*:<br>1. Social and physical environment<br>2. Teaching and learning<br>3. Healthy school policy<br>4. Partnership and services | *8 Components*:<br>1. Family and community involvement in school health<br>2. Comprehensive school health education<br>3. Physical education<br>4. School health services<br>5. School nutrition services<br>6. Counselling, psychological, and social services<br>7. Healthy school environment<br>8. Health promotion for school personnel | *6 Key Factors*:<br>1. Healthy school policies<br>2. School’s physical environment<br>3. School’s social environment<br>4. Community links<br>5. Action competencies for healthy living<br>6. School health care and promotion services | *4 Core Components*:<br>1. Health-related school policies<br>2. Provisional of safe water and sanitation<br>3. Skills-based health education<br>4. School-based health and nutrition services |
| Emphases | | | |
| The Pan-Canadian JCSH stated that the terminology used in her CSH is the alternative expression of CSHP and HPS, which are based on the same concepts from the WHO Ottawa Charter in 1986 (Pan-Canadian Joint Consortium for School Health, 2012a, 2012b). | The CDC commented that school health programs and policies are “patchwork” from a wide variety of “federal, state and local mandates, regulations, initiatives and funding streams” in which the standards and approaches vary. The CSHP aims to reduce the redundancies and enhance collaboration (Centers for Disease Control and Prevention, 2011). | The HPS takes a whole-school approach which goes beyond the classroom-based learning and teaching to cover all aspects of the life of a school. The well-known definition of HPS—“a healthy setting for living, learning and working”—is widely adopted by international partners such as the IUHPE (International Union for Health Promotion and Education, 2009, 2010, 2012). | FRESH positioned itself as a starting point that provides a strong foundation for creating HPS and achieving the goals of Education for All in developing countries. It targets those health problems that interfere with learning and predispose a child to absenteeism due to ill health, such as malnutrition, parasite infections and STI/HIV/AIDS (Focusing Resources on Effective School Health, 2000a, 2000b, 2000c). |

## 2.4 The Change in School Health Programmes from Conventional Approaches to the HPS-based Approach

Worldwide, schools have long been regarded as an important setting for health education and health promotion (Lister-Sharp et al., 1999). Literature on health education programmes conducted in schools can be traced back to the 1970s, when the foci commonly included dental health (such as Blaikie, 1976; Roder, Sundrum, Boundy, & Inger, 1977; Roder & Sundrum, 1976), vaccinations (such as Peckham, Marshall, & Dudgeon, 1977), prevention of sexually transmitted infections (such as. Franz & Weisser, 1978; Yarber, 1977), and smoking intervention programmes (such as Beaglehole, Brough, Harding, & Eyles, 1978). Since schools were regarded as an appropriate setting in which approach children, many studies were conducted with the purpose of health screening and surveillance (Blaikie, 1976; Irwig, 1976; Williams & Wynder, 1978).

Intervention designs were common in these conventional school health programmes. However, these conventional approaches usually lasted for short periods of one to two years because of limited budgets; long-term follow-up using interventional designs were rare (such as IUHPE, 2009, 2010;

Lawrence, 1984; Vartiainen, Puska, & Tossavainen, 1986). Reviews of conventional school health programmes yielded mixed evidence for their effectiveness due to non-rigorous intervention designs, and a lack of long-term implementation and follow-up (e.g. IUHPE, 2009, 2010; Mann, Vingilis, Leigh, Anglin, & Blefgen, 1986; Stewart-Brown & Haslum, 1988; Swadi & Zeitlin, 1987; Walker & Walker, 1986). In addition, schools focused on academic success in the past, perceiving health programmes were foreign and lacking commitment to improving students' health goals (e.g. Weare, 2002).

While conventional school health programmes and the concept of health screening and surveillance still exist today, studies have emerged that focused on health promotion, such as mental health (e.g. Saeed, Iqbal, & Mubbashar, 1999) and obesity in school children (e.g. Angelico et al., 1991). Health promoters have realised that the conventional school health programme was narrow in its focus only on disease prevention (IUHPE, 2009, 2010). Hence, it often adopted a health education approach that limited changes in knwoledge and behaviours.

Since the Ottawa Charter, health promotion involving the wider determinants of health (such as environment and policy) has

inspired the advancement of school health programmes and research. In addition, the WHO HPS framework inspired the health sector to emphasise the whole-school approach and participant involvement in school health programmes and research. Researchers also realised that rigorous qualitative designs were of paramount importance in generating evidence to support the effectiveness of the HPS (Lister-Sharp et al., 1999).

Since the uptake of the HPS concepts, HPS-based school health programmes have been found to be effective in different facets of health, such as in preventing drug usage, promoting healthy eating and promoting physical activity. For example, Fletcher, Bonell and Hargreaves (2008) found that HPS prevented children from drug use, owing to the positive school social environment and better teacher-student relationships (Fletcher, Bonell, & Hargreaves, 2008). Beam et al. (2012) found that healthy schools (a synonym of HPS used in the US) prevented childhood obesity and the success was associated with the establishment and improvement of school environmental policies (Beam, Ehrlich, Donze Black, Block, & Leviton, 2012). Kriemler et al. (2011) concluded that multi-component interventions (educational, curricular and environmental elements and parent participation)

were more effective in promoting physical activities in schoolchildren, particularly in the case of parent participation.

Although not all HPS-based school health programmes yielded significant positive sustainable results in changing students' health behaviours (Lister-Sharp et al., 1999; Stewart-Brown, 2006), Hung, Chiang, Dawson, and Lee (2014) synthesised five key facilitators for implementing HPS-based programmes: (a) following a guideline to implement HPS; (b) obtaining committed support and contributions from the stakeholders, including school staff, management, local authorities, and external health agencies; (c) adopting a multidisciplinary, collaborative approach to implementing HPS; (d) establishing professional networks and relationships; and (e) continuing training and education in school health promotion for school members (Hung, Chiang, Dawson, & Lee, 2014). All of these are consistent with what the framework advocates.

In addition, marketing strategies is essential in promoting HPS in order to gain support from parents and communities. For example, evidence also shows that there are positive associations between good health and academic success in children. This academic-health linkage has since been adopted as a promotion

strategy for advocating the HPS-based approach in school health. Collaboration between the health and education sectors in promoting child health in schools can yield mutual benefits in terms of achieving health and educational goals (CDC, 2015; Murray, Low, Hollis, Cross, & Davis, 2007).

## 2.5 Contemporary School Health Promotion Models that Foster Intersectoral Collaborations between Health and Education Sectors

As mentioned in the WHO initiatives and the HPS framework, intersectoral collaboration is one of the key to success of HPS. This notion has been adopted by contemporary models in school health education and promotion.

Exemplars include the *Whole School, Whole Community, Whole Child* (Association for Supervision and Curriculum Development (Association for Supervision and Curriculum Development [ASCD] and Centers for Disease Control and Prevention [CDC], 2014) and the *Better Health. Better Learning* (National Association of School Nurses [NASN], 2016) of the U.S.

In their model, the ASCD and CDC (2014) positioned students' health as a *resource* for ensuring academic achievement

that, in turn, is an indicator for the overall wellbeing of youth and a primary predictor and determinant of adult health *outcomes* (ASCD and CDC, 2014). This addresses the inadequacy of collaboration between the health and education sectors. Their models also highlight the complexity of intersectoral collaboration that *health is both the resources and the outcomes in school health education and promotion.*

The fundamental step in intersectoral collaboration is to create mutual goals and values (ASCD and CDC, 2014). For example, the education sector summons a renewal of community collaboration towards whole-child development, redefining learning outcomes to include children's health (ASCD, 2007). The health sector advocates matching modern school health programmes to improve health knowledge, attitudes and skills of students, health behaviours, health outcomes, educational outcomes and social outcomes (Kolbe, 2002). These efforts, again, require government support and establishment of policies conducive to the notion of intersectoral collaboration (E. D.Maughan, Bobo, Butler, & Schantz, 2016).

## 2.6 Advocates of Intersectoral Collaborations in Hong Kong Health Sector.

Healthcare professional organisations and associations in Hong Kong, such as the Hong Kong Paediatric Society (HKPS) and the Hong Kong Paediatric Foundation (HKPF), have advocated a proposal on child health policy (HKPS and HKPF, 2015), while the Hong Kong School Nurses Association (HKSNA) has advocated “one school, one nurse” to the government (HKSNA, 2011).

They recognised that resources allocated to education remain insufficient. The support and resources ineffectively target children including vulnerable groups, such as students with special educational needs (SEN), children of ethnic minorities, children living in poverty and children with disabilities. HKPS and HKPF (2015) argued that Hong Kong educational cultures and practices have resulted in insufficient balance of the needs of children in terms of education and health, especially the skewing of focus towards academic outcomes (HKPS and HKPF, 2015).

Let alone some Hong Kong schools adopted the WHO HPS concept in health promotion (e.g. A. Lee, 2009b), the health sector has recognised the inadequate emphases in children’s health in

Hong Kong education system (HKPS and HKPF, 2015; HKSNA, 2011). The current local education curriculum leads to over-emphasis on academic subjects, the lack of physical exercise, and insufficient life skill development during and after school (HKPS and HKPF, 2015). Therefore, the HKHSA Scheme organised by CUHK (e.g. A. Lee et al., 2008) and the HAS organised by the HKSNA (e.g. R. L. T. Lee & Hayter, 2014) attempted to bridge this gap.

#### 2.6.1 Hong Kong Healthy Schools Award Scheme.

According to A. Lee (2009b), CUHK started to collaborate with various School Councils (The Hong Kong Subsidised Secondary Schools Councils, The Subsidised Primary Schools Councils and The Hong Kong Special Schools Councils) to promote the HPS concepts in local public schools in 1998.

The idea of intersectoral collaboration was recognised by WHO as one of the means to promote HPS. Thus, in order to build the foundation of intersectoral collaboration, certificate diploma, professional diploma and master programmes in health education and health promotion have been established since 1998 to train early childhood and school educators. Since 2001, the Scheme started to grow and consolidate, such as initiating health promotion

programmes; promoting inter-school collaboration, establishing international HPS networks; and conducting regional workshops for educators and healthcare professionals in Hong Kong, Macao, Taiwan, and Mainland China; (A. Lee, 2009b).

The timely introduction of the scheme helped many local primary and secondary schools to overcome emerging health issues among children and the society, such as the increase of obesity rate, diabetes, and mental health issues (CHEP-CUHK, 2017; DH, 2011; HKPS and HKPF, 2015). Since the SARS (severe acute respiratory syndrome) outbreak in 2003, the HKHSA scheme has equipped local schools to face this major health crisis. For example, the Education and Manpower Bureau (now Education Bureau) sought the help from CHEP to conduct short courses on HPS for all schools in Hong Kong (CHEP-CUHK, 2017). More than 1,200 school principals and teachers from 700 local schools attended the courses and gained basic understanding on HPS concepts and implementation. Owing to the subsequent outbreaks of Avian Flu in 2004 and 2005, schools were more attracted to join the scheme (CHPE-CUHK, 2017).

Although there were more exposures and understandings of the HPS concept in the education sector, only about 10% of Hong

Kong public schools participated in the Scheme up to 2010 (A. Lee, 2009b; A. Lee, Keung, Lo, Kwong, & Armstrong, 2014), and only about 8.9% of public schools have ever been awarded up to 2016 (see CHEP-CUHK, 2017; see Education Bureau, 2016o). This situation may be caused by the difficulties in HPS adaptation to Hong Kong contexts.

While HPS advocates many changes to advance health education and health promotion in schools, including intersectoral collaboration that Hong Kong possesses such potential, there were several challenges to the sustainability. For example, there was no earmarked funding for HPS, the Scheme was sustained by Quality Education Fund established by the Hong Kong SAR Government which limited to certain education-oriented topics and objectives (A. Lee, 2009). There were also challenges shared by other countries promoting HPS such as those related to resources, political issues, environmental contexts, administrative support, provision of trained and skilled teachers, and understanding of the value of school health and the concept of HPS – all rooted in Hong Kong contexts.

## 2.7 The Historical and Cultural Contexts in Hong Kong Education

Since the WHO HPS framework proposed schools to adapt to their local context, understanding of the historical and cultural context in Hong Kong is essential for subsequent grounded theory development. In particular, educational reforms in Hong Kong since the 1980s have shaped the competitive, and hence "unhealthy" cultures of elitism and competition (Y. C. Cheng, 1993, 1994, 1996, 1998, 1999, 2000, 2005a, 2005b, 2013, 2015; Y. C. Cheng & Chan, 2000; Y. C. Cheng & Cheung, 1997; Y. C. Cheng & Mok, 2007, 2008; Cheung & Cheng, 1996, 1997).

The first wave of educational reform (which covered the late 20th century) was affected by both Chinese and British colonial cultures and practices. Two significant historical contexts affecting the Hong Kong education system were the British colonial period (1841—1997) and the Second World War (WWII) (1939—1945) (Y. C. Cheng, 1993; A. Lee, 2009b).

The first educational reform emerged as an expansion of primary and secondary education and brought Hong Kong education system to the "mass education era" (Poon & Wong, 2007). During the early colonial period of Britain, education

policies aimed to produce academic elites who could act as liaisons in trade and administration and mainly served the upper class (Adamson & Morris, 2000; Poon & Wong, 2007). Public and government-aided schools and universities were limited and seldom people could afford school fees and send their children to private schools which were set up by charity organisations, missionary societies and neighbourhood associations; university places were very competitive (Adamson & Morris, 2000; Poon & Wong, 2007). In addition, Hong Kong population surged—from only about 5,000 native farmers and fishermen before British colonisation to over 50 million people in the 1980s—which made Hong Kong's population structure mostly consisted of the lower class including millions of Chinese illegal immigrants after the Japanese occupation (1941-1945) during WWII (Gauld & Gould, 2002; see also Government Secretariat Hong Kong Government, 1981). The majority did not have the ability to support their children to receive formal education at that time (Gauld & Gould, 2002; A. Lee, 2009b; Poon & Wong, 2007). This historical background constituted to the culture of elitism that still persists nowadays (Poon-McBrayer, 2004; Poon & Wong, 2008).

Riding on the growing industrial economy benefited from

the population explosion and trends of global economic, the British Colonial Government secured public access to free and compulsory 9-year education (6-year primary and 3-year junior secondary) for the Chinese sector of the population since 1978 (Y. C. Cheng, 2005a, 2015; Poon & Wong, 2007). Poon and Wong (2007) stated that the provision of secondary education places was more sufficient in the "mass education era" and the number of university places has drastically increased since the early 1990s, but the "elite culture" has sustained that students have been under tremendous pressure to struggle to enter high-banding schools, succeed in internal and public examinations, compete for university places and the selective occupational paths.

Therefore, it was believed that the highly selective, competitive and examination-oriented atmosphere of Hong Kong's education system rooted in the colonial period and "elitist education era" (A. Lee, 2009b; Poon & Wong, 2007). Elitism, on one hand, is an essential cultural propeller of economical competiveness in Hong Kong (Poon & Wong, 2008), on the other hand causes tensions in education that supposed to promote values of equity and integration (Poon-McBrayer, 2004)

Poon and Wong (2007) explained how the "elite culture"

was further reinforced in Hong Kong by Chinese culture and British colonialism:

> As in most countries, education in Hong Kong is seen as a means to social mobility (Farrell, 1999), thereby economic opportunities and upward social mobility bring income/wealth—*money is a shared value for the majority of citizens* [emphasis added]. That explains why students strive hard to make their ways through the system. Selecting people through the examination system is, in fact, a product of Chinese culture and colonialism. Traditionally, the Chinese have always valued study, and examination was a mechanism used to select mandarins for the court. Likewise, civil servants in colonial Hong Kong were those who did well in both the public examinations of the education system and a series of entry examinations especially designed for the civil service. (Poon & Wong, 2007, p. 6)

In addition, there is a traditional Chinese belief: *"wàn bān jiē xià pǐn, wéi yǒu dú shū gāo"* (literally translated as: "Ten thousands things are inferior; only 'education' is superior"),

meaning that education and learning is the noblest human endeavour (see Szeto, 2010, December, only in Chinese). This traditional belief also means that education is a path, and sometimes the only path, for the new generations to excel or to acquire a high socio-economic status in the society (Poon & Wong, 2007). Therefore, climbing high in the career ladder is culturally correlated to academic success in schools and examinations in Hong Kong. This social mobilisation through education was sometimes reinforced in the applications of the Confucianism philosophy (see Wong, 2001).

As such, Hong Kong education curriculum has been focusing on languages, mathematics and sciences because it was assumed that these subjects would train appropriate intelligence and mentality of working adults for the time of industrial economic society and produce appropriate human resources as managers and liaisons. This educational norm was also stemmed from the British colonial practice and culture in Hong Kong and elsewhere (see Waters, 2012).

Since the general public emphasises education as a path of social mobility, school's banding (determined by students' academic performance in public examinations) has become the

major focus of the schools. This elite and competitive culture continues to affect school management in Hong Kong nowadays.

In addition, historically, public health issues were under separate governance of the health sector (Gauld & Gould, 2002; c.f. Leung & Bacon-Shone, 2006). Gauld and Gould (2002) found that the major Hong Kong health reforms happened in the British colonial period. The achievements of the health reforms include the establishment of Hospital Authority (HA) and DH which have contributed to the great success in reducing morbidity and mortality rate, as well as the highest life expectancy worldwide. Recent health reforms, however, target on healthcare financing and medical insurance owing to issues surrounding the aging population (Gauld & Gould, 2002; Ramesh, 2012). From these integrative, historical lenses of the health and education sectors, school health promotion has yet been the main focus in any education and health reforms.

Although the WHO HPS framework, which advocates intersectoral collaboration, was established at the time of the first wave of Hong Kong educational reform, children's health is mainly confined to the efforts outside of schools (e.g. from the DH). Therefore, intersectoral collaboration is rarely realised in the reality

of “separated governance”, and that health education in schools mainly relies on the efforts from education sector.

Accordingly, health education is supposed to be integrated into the curriculum of the “soft” subjects (less academically weighed in public examinations) such as physical education, art, music, humanities, and home economics (A. Lee, 2009b; Morris & Chan, 1997a, 1997b). As most of the schools allocated less time to the “soft” subjects, opportunity for health education integration became less.

In the 1990s, the second wave of educational reform shifted educational focuses from quantity to quality education (Y. C. Cheng, 2005a), such as language proficiency, teacher quality, private sector school improvements, curriculum development, teaching and learning conditions (e.g. physical environment of classrooms) and special education. Although significant improvements were found in the above-mentioned areas, there were little (or unobvious) improvement in students’ academic outcomes (Y. C. Cheng, 2005a). The lack of financial support, insufficient research, inadequate reflection and the ignorance of school-based needs were the main reasons for the ineffectiveness of schools (A. Lee, 2009b; Morris & Chan, 1997a, 1997b).

Therefore, the government initiated the School Management Initiative (SMI) in public schools in the second wave of education reform (Y. C. Cheng, 2009). Owing to the evidence of positive outcomes from pilot schools, all Hong Kong public schools were required to implement SMI by 2000. According to Y. C. Cheng (1996), the SMI aims at enhancement of autonomy of school stakeholders in creating advantageous conditions for participation, improvement, innovation, accountability, and continuous professional growth. The SMI claims to decentralise the original authority from central offices and external school sponsoring bodies (e.g. religious groups and charities) to school stakeholders in the decision-making processes and school management tasks. Therefore, schools were supposed to enjoy a more flexible management according to their characteristics and needs. Accordingly, school stakeholders will also enjoy much greater autonomy and responsibility for the use of resources in problem-solving, teaching, and long-term development of schools.

Beside decentralisation, the SMI employs the notion of “equifinality” which assumes that school is a self-managing system that stakeholders can achieve the goal of effectiveness through different methods, at different time points, and with a more

dynamic human and resource allocation (Y. C. Cheng, 1996).

However, the SMI has aggravated the competitive atmosphere of schools because many of them still hold tightly on the fear of survival when schools acquire less financial resource from the government if the numbers of new student enrolment drops, creating viscous cycles and school closure eventually. This fear forced schools to be even more competitive in terms of student academic outcomes (i.e. the results in public examinations), as well as fame or recognition among parents. As such, the competitive culture spread across school communities (A. Hargreaves & Fink, 2006).

## 2.8 Bronfenbrenner's Ecological Concept

The above historical context of Hong Kong education plays an influential part in the current practice of HPS based on the assumption of schools as an open ecological system (Bronfenbrenner, 1979; Rosas, 2015). Changes happened in each of the above levels affect all subsequent interactions in other levels.

According to Bronfenbrenner (Bronfenbrenner, 1979), the ecological system for human development consisted of different levels surrounding an individual: micro-, meso-, exo-, macro-, and

chrono-systems. Depending on the positions of the individuals, one may contribute (and be affected by) more or less at certain levels (Green & Kreuter, 2005). Hawe, Shiell and Riley (2009) suggested that an ecological system approach was regarded as interventions and strategies that involve multiple players at multiple levels and that the linkages, relationships, feedback loops and interactions among the players and levels are characterised.

The micro-system was the immediate setting in which an individual live (such as homes and schools) and interact with others (such as teacher-student interactions, teacher-parent interaction, parent-student interaction, and so on) (Bronfenbrenner, 1979; L. W. Green & Kreuter, 2005).

The meso-system concerned the linkage and interactions of two or more (micro) levels that the student, his parents and teachers, and family live. For example, an HPS-awarded school helping a newly joined school to implement the HPS was a meso-system activity. The transportation arrangement (such as school bus driving students between schools and homes) and school “open days” allowing parents and public visits were also meso-system interactions (Bronfenbrenner, 1979; L. W. Green & Kreuter, 2005).

The exo-system concerned larger systems which the individual may not directly function, depending on one's position. For example, children did not participate in school policy development (Y. W. Leung, Yuen, Cheng, & Guo, 2016), thus it was an exo-system activity to the students. On the other hand, teachers were active in the school policy-making process, thus policy-making was a micro activity of the teachers. Activities organised by DH and HA belong to the exo-system for school members (Bronfenbrenner, 1979; L. W. Green & Kreuter, 2005).

Macro-system concerned the ideology, values, cultures, norms, economy and laws in the society. For example, the competitive, academic-oriented culture, and the expectations of parents, government and general public, schooling and education system of Hong Kong mentioned previously belongs to the macro-system.

Finally, chrono-system encompassed timing and changes across time. The introduction of HPS coincided with the waves of educational reforms could also be regarded as a chrono-interaction. For example, the continuous Hong Kong educational reforms propelled the greatest chronological changes, which in turns also affect across all other ecological levels (Y. C. Cheng, 2009)

## 2.9 Schools as Social Complex Adaptive Systems (SCAS)

The abovementioned ecological property of school system was not new, but the complex interactions among people, groups and strategies were seldom explained in the traditional Bronfenbrenner's ecological metaphor (Bronfenbrenner, 1979; Green & Kreuter, 2005), probably due to the solely individual focus during implementation (i.e., how an individual is affected by the systems—usually one at a time) rather than system focus that an organisation is also regarded as an entity (i.e. whole-school approach) (Vélez-Agosto, Soto-Crespo, Vizcarrondo-Oppenheimer, Vega-Molina, & García Coll, 2017). Recently, Keshavarz and colleagues (2010) proposed that schools as SCAS (Keshavarz, Nutbeam, Rowling, & Khavarpour, 2010). The SCAS can supplement the ecological concept, as well as describe emerging characteristics of the current educational system. In an SCAS, individuals, groups and organisations interact within and outside of the system such as the surrounding communities and the families. An SCAS consists of the following characteristics as summarised by Cilliers (2005):

1. There are numerous elements which in themselves could be simple and obvious, such as the six key components of the WHO HPS framework.
2. There are rich and dynamic exchanges of energy or information and that these interactions extend throughout the systems. In other words, the whole-school approach of HPS involves not only participations of all stakeholders, but also complex interactions among them.
3. The interactions are non-linear. Despite schools' hierarchical structure, the complex nature of interaction lead to the blurring of boundaries.
4. Direct and indirect feedback loops exist in a complex system. For example, the formal school self-evaluation and external reviews are required by SMI since the education reforms.
5. Complex systems are open systems which operate under non-equilibrium conditions. For example, the contexts of schools undergoing reforms are far from stable, hence the implementation HPS is also unstable, or unpredictable.

6. Complex systems and behaviours are subjected to the influences of memory and history which are distributed throughout the system.
7. The behaviour of the system as a whole is unpredictable but "emergent". This emergence is against linear causality. For example, a school implementing HPS may yield unpredictable results to the schools which may or may not be welcomed by school members.
8. Complex systems are adaptive or self-organising in favour of adapting to changes with or without the intervention of an external agent. For example, schools could organise and reorganise themselves with or without the participation in HPS.

A school as a microsystem, in itself, consists of multi-levels or subsystems (Green & Kreuter, 2005) that is evidenced in schools' organisational charts. Hierarchical structures exist in every schools based on which authority (decision-making power) is designated from the "leader" to "subordinates" (SSB, principal, teachers, groups and so on). The management and leadership of this

hierarchical concept emphasised policies and rules, favouring centralisation of authority.

The hierarchy of SCAS still exists as it is a universal characteristic of modern organisations (Diefendach, 2013). However, an SCAS emphasises more the decentralisation of authority (decision-making power), autonomy of individuals and interactions of interconnected groups (such as working groups and divisions). For example, teachers possess professional autonomy in classroom teaching (Quong, 2016), but at the same time are confined to authoritative guidelines, rules and policies – accountability (Hyslop-margison & Sears, 2010). Another example is student participation that students should be autonomous (individual autonomy) to participate in decision-making, but at the same time under the supervision of teachers and principals (authoritaty) (Y. W. Leung, Yuen, Cheng, & Chow, 2014).

## 2.10 Organisational Paradoxes

With the understanding of schools as SCAS, the whole-school approach of HPS inevitably involves complex interactions and changes of schools, or organisations. Jansson (Jansson, 2015) asserted that permanent tensions in organisations contribute to their

renewal and change. These pertinent tensions are inherent organisational paradoxes that leaders and managers have to cope with in order to foster changes (W. K. Smith & Lewis, 2011).

Paradoxes are contradictory, and even mutually exclusive, yet interrelated elements (e.g. thoughts, actions, or emotions) that exist simultaneously and persist over time, and that seem logical when considered in isolation, yet irrational and inconsistent when juxtaposed (Lewis, Andriopoulos, & Smith, 2014; Van Nistelrooij & De Caluwé, 2016). According to W. K. Smith and Lewis (2011), paradoxes are the manifestation of underlying dualistic tensions of between two elements, complex trialectics and even pluralistic tensions.

W. K. Smith and Lewis (2011) conceptualised four interactive categories of organisational paradoxes: *organising*, *performing*, *belonging*, and *learning* paradoxes.

*Organising paradoxes* consist of tensions between competing designs and processes to achieve a desired outcome (W. K. Smith & Lewis, 2011). For example, tensions between collaboration and competition, empowerment and direction or routine and change. Organising paradoxes constitute to the tensional triad because tensions exist between centralisation and

decentralisation of authority, or “centralised decentralisation” (Toh, Jamaludin, Hung, & Chua, 2014).

*Performing paradoxes* stem from the plurality of stakeholders, such as SSBs, principals, teachers, social workers, and school nurses. When stakeholders’ goals differ, strategies to achieve the competing goals give rise to tensions such as personal growth and development goals, academic and examination goals, and management goals. The “triple bottom line” (MacDonald, 2009) of schools (e.g. fiscal, academic and intangible core [i.e. everything outside academic, such as moral, citizenship and global education]) is facing challenges that further intensify the tensions when HPS is introduced. Thus, the tensional triad indeed reflects the tensions in meeting the triple bottom line of schools under the further influence of SMI.

*Learning paradoxes* concern the renewal and sustainability of an organisation—for one to sustain one must learn and renew. “These efforts involve building upon, as well as destroying, the past to create the future.” (W. K. Smith & Lewis, 2011, p. 383). A new school development direction may need to abandon existing practices and cultures. The tensions between episodic and continuous change characterise the learning paradoxes through the

process of un-learning and re-learning such as the adaptation processes in SMI and HPS.

*Belonging paradoxes* arise in the tensions of identity. Identities exist and belong to individuals and groups which seek unity and distinction, coexisting but sometime conflicting. Tensions arise from role conflicts among identities. In addition, tensions of identity exist across multiple organisational levels. In other words, one may identify himself/herself well at one level, but may identify himself/herself poorly at another level.

For example, teachers may identify well with their professional self in classroom teaching, but find it contradictory (role ambiguities) in acting as an administrator and manager under SMI (Watson, 2013). Similarly, role ambiguities may present when teachers act as an authoritative, disciplinary figure and educator to students; and as a caring, friendly councillor or health promoter. School nurses, being less involved in student disciplinary issue, may encounter less belonging paradoxes at the level of interaction with students in health promotion (E. Maughan, 2003).

However, the perception of professional under-valued have been recognised by literature, by both their nursing peers who were not school nurses (Croghan, Johnson, & Aveyard, 2004) and by

themselves (Morberg, Dellve, Karlsson, & Lagerström, 2006). Zimmerman, Wagoner and Kelly (1996) found that school nurses experienced role ambiguity between schools' expectations and their professional role owing to the unclear expectations of their role by the nurse practice act and by the school board. In other words, belonging paradoxes could still exist among school nurses if mutual understanding and valuing of school nurses' professional role was lacking (Morberg, Lagerström, & Dellve, 2009).

To summarise, these organisational tensions or paradoxes contribute to the complex interactions among school members. The concept of SCAS offers deeper understanding about the complex processes of schools as a hierarchical organisation. Health-Promoting Schools should be regarded as organisational change processes rather than simply an initiative or an interventional design.

## 2.11 Conclusion

The above initial literature review reveals that the WHO HPS framework has been adopted worldwide, including some schools in Hong Kong. The HPS approach has yielded promising results in some distinctive health areas, but is still inconclusive in

terms sustainability. International cases have suggested that a government-led approach and linking academic and health outcomes are essential strategies in promoting HPS-based school health programmes. Intersectoral collaboration between the health and education sectors have long been suggested, but not yet realised in Hong Kong. A recent systematic review of the researcher also suggested that intersectoral collaboration is one of the facilitators to the success of HPS, but more in-depth research is needed in the process of coordination (Hung et al., 2014). In addition, schools have been regarded as social complex adaptive system that not only interactions among school members are nonlinear and complex, but that pertinent organisational tensions or paradoxes exist which interfere schools implementing HPS.

Therefore, the literature review encouraged the researcher investigating the situation of HPS process in Hong Kong. To recap, the purpose of this study is to develop a theoretical understanding of the HPS process in Hong Kong, and of their strategy for success, and thus to generate a grounded theory to describe and explain the process. This study will employ CGT (Glaser, 1978, 2015; Glaser & Strauss, 1967). The main research question is: *What is the process whereby schools become and sustain as health-promoting*

*institutions?*

# CHAPTER 3

# DESIGN OF STUDY AND ANALYSIS OF DATA

## 3.1 Introduction

This section discusses the origin, development and philosophical underpinnings of Grounded Theory Method (GTM) which is the methodology used in the current study. Classic Grounded Theory (CGT) (Glaser, 1978, 1992, 1998, 2001, 2003, 2005, 2009, 2011, 2012, 2013, 2014a, 2014b, 2014c, 2015; Glaser & Strauss, 1967) was adopted as a philosophically neutral method to generate a middle-range theory. The processes of participant recruitment and data analyses were guided by and integrated with CGT, as discussed in this chapter.

**3.1.1 Research questions.** To recap, the main research question (RQ) guiding the discovery and formulation of theory is:

*Main RQ: What is the process whereby schools become and sustain as health-promoting institutions?*

According to CGT, the main research question is a guiding question for the researcher. The middle-range theory generated

may require other relevant questions. For example, two sub-questions could be formulated:

(i) What motivates stakeholders to work towards becoming health-promoting institutions?

(ii) What are the different characteristics, interactions, implementing strategies, and resources of health promoters in attaining Health-Promoting Schools (HPS) awards and sustaining as health-promoting institutions?

These questions are introductory to the emergence of theory, indeed they are also modifiable, as the subsequent theoretical sampling and conceptualisations suggest. For example:

(iii) What are the genuine main concerns behind schools implementing HPS, when they are in fact treating it as a mean of achieving the school's management objectives?

(iv) What are the major strategies that the participants adopted to solve the genuine main concerns, if it was not all about HPS?

(v) What are the common concepts of the processes of

HPS and the School-based Management Initiative?

The following sections discuss the methodology issues and debates of the CGT.

## 3.2 Grounded Theory Method

The term "grounded theory method (GTM)" is used to refer to a set of procedures for data collection and analysis, rather than the intended outcome of a theory. It was developed by Barney G. Glaser and Anselm L. Strauss (1916-1996) during their collaboration in the early 1960s (Charmaz, 2006; Glaser, 1998; Glaser & Strauss, 1967). It is a general comparative, qualitative method that utilises both qualitative and quantitative data with the aim of generating a middle-range theory (Glaser, 1978; Glaser & Strauss, 1967). The logic of GTM includes induction (Glaser, 1978; Glaser & Strauss, 1967), deduction, verification and abduction (involving simultaneous use of induction, deduction, imagination and inferences) (Annells, 1997a, 1997b; McCann, 2003a). The method is characterised by constant comparative analysis (constant comparison) and a theoretical sampling technique. Since the GTM legitimates and inspires researchers to build their own theories, it

has been used increasingly by qualitative researchers in various disciplines, including nursing and health care.

However, adaptations over the years have led to modifications of the GTM which led to debates between founders, and finally a parting of the ways for Glaser and Strauss. In particular, Glaser (1992) criticised Strauss' and Corbin's version of the GTM (SGT) for eroding or re-modelling the method from its original intention. The differences in terminologies, coding procedures and other modifications confused many qualitative researchers, including this author, in the learning and research application of the method.

The subsequent criticisms of the CGT and adaptation of the GTM in different versions led to Glaser's combat against qualitative data analysis (QDA) method "remodelling" or QDA lacing (Glaser, 1992, 1998, 2001, 2003), yet the "GT jargonising" continues today (Glaser, 2009, 2015).

In order to understand the method better, one needs to consider the development and modifications of the GTM. The detailed tenets of the CGT will be discussed in Section 3.3.

**3.2.1 Original intention of grounded theory.** The GTM was originally derived by Glaser and Strauss from their research on terminal patients in hospitals (Glaser & Strauss, 1967). After analysing the research procedures and experiences, they gave the name *grounded theory* to indicate their "discovery" as "a general method of comparative analysis". Possibly because they were writing for sociologists, who were assumed to be familiar with concepts such as *the concept-indicator model*, *inductive logic, comparative analysis*, *theory verification, falsification and generation*, and *coding*, they gave little in the way of instructions, nor articulations of any ontological and epistemological claims (Glaser, 1978; Glaser & Strauss, 1967; Melanie, 2015).

In fact, based on the discussion in the later sections, this author understands CGT to be a method of research, and believes that confusion between CGT and other modifications (Straussian GT and constructivist GT) stemmed from the merging, overlapping, and debates about methodology, epistemology and ontology, which should be distinct from CGT as a general method based on the constant comparison technique (Glaser, 2014b).

One of the intentions of the founders of grounded theory was to tackle the trend of skewing and biasing social research

towards quantitative methods and diminishing the value of qualitative methods. Another trend of social research at that time was the dominance of research based on, and hence usually serving only to verify, the theories produced by previous “giants”, “theoretical capitalists” or elites of sociology (Birks & Mills, 2015; Charmaz, 2006).

Glaser and Strauss (1967) tried to address biases in social research by promoting a way to work in reverse: Instead of proving a (grand) theory by statistical methods, a researcher can “discover” a (middle-range) theory from systematic data collection and analysis that they called grounded theory. Since the publication of *Discovery of Grounded Theory: Strategies for Qualitative Research* (hereafter *Discovery*), the GTM has been adopted widely in various disciplines of research, such as social science, marketing, management, and healthcare, despite the claim, if not a warning, in the book that only sociologists are capable of generating theories using this method (Glaser and Strauss, 1967, pp. 6-7).

Although the original intention of the GTM was stated clearly in *Discovery,* its philosophical stand was not discussed in this very first book. Glaser and Strauss (1967) did not discuss the ontology and epistemology behind the use of GTM (CGT and

subsequent variations) as one, but not limited to, a qualitative method. Qualitative researchers, particularly those adopting GTM, are often required to justify the chosen methodology with the discussion of its philosophical underpinning. Hence many researchers could argue for possible philosophical underpinnings for GTM by articulating the vocabulary used in the founders' writing, such as the *Discovery*. For example, it was argued that the word "discover" was used as a hint of the founders' assumption of "a reality out there" (i.e. positivistic ontology). The discussions on data collection, analysis of GTM (e.g. the use of quantitative data, observation and inductive logic), and rigor of research using quantitative vocabulary (e.g. validity and reliability) led qualitative researchers, especially novices, to consider it as a positivistic method. Similar to other qualitative research methods, grounded theory has arisen within historical contexts, hence developments, debates and modifications have been inevitable.

**3.2.2 The philosophical debates and modifications surrounding CGT.** Three versions of the GTM that have emerged from ongoing debates of the philosophical underpinnings among the founders, their students and proponents: classic, Straussian and

constructivist. Until now, proponents of CGT, Straussian grounded theory (SGT) and constructivist GT often submerge themselves into the conflicts and debates of either the "remodelling" charged from the classical side, or the outdated positivistic ontology charged from the interpretative and constructivist side (Charmaz, 2000, 2006; Denzin & Lincoln, 1994; Mills et al., 2006). The CGT considers itself a philosophically neutral, general method based on the concept-indicator model (Glaser, 1978, 2015) that was adopted in this study.

Strauss and Corbin (1998) stated eight contributions that they brought to the SGT approach, with some shared by the CGT approach (pp. 9-10):

1. The need to get out into the field to discover what is really going on.
2. The relevance of theory, grounded in data, to the development of a discipline and as a basis for social action.
3. The complexity and variability of phenomena and of human action.
4. The belief that persons are actors who take an active role in responding to problematic situations.

5. The realisation that persons act on the basis of meaning
6. The understanding that meaning is defined and redefined through interaction.
7. Sensitivity to the evolving and unfolding nature of events (process).
8. An awareness of the interrelationships among conditions (structure), action (process), and consequences.

These contributions are consistent with the interpretative qualitative stance that emphasises participants' views rather than solely the hegemony of the researcher, such as contributions (4-6). In addition, contribution (2) legitimises the SGT as a qualitative method (c.f. the CGT as a general method claimed by Glaser) that "researches about persons' lives, lived experiences, behaviours, emotions, feelings, organisational functioning, social movement, cultural phenomena, and interactions between nations" (p. 11).

Straussian GT is characterised by its philosophical underpinning in symbolic interactionism (SI), although Glaser suggested that the researcher should not take it for granted in

adopting CGT, which should be done as openly as possible (i.e philosophically neutral). The following paragraphs will briefly present how SI underpin the SGT, which is still relevant to CGT if the data suggests it is.

***3.2.2.1. Symbolic interactionism***. Symbolic interactionism (SI) is an approach that originated in social psychology from George Herbert Mead's (1934) *Mind, Self and Society* which was published by Mead's students based on their class notes after his death in 1931 (Oktay, 2012). Herbert Blumer, a student of Mead's at the University of Chicago, contributed to the consolidation and expansion of Mead's ideas, coining the term *symbolic interactionism* (1969). The early and later development of SI overlapped the time when *Discovery* was published by Glaser and Strauss in 1967. Hence, it is understandable that GTM and SI were not explicitly discussed by the GT founders: SI had been discussed by some influential figures, particularly Strauss as an ex-student of Blumer (Gibson & Hartment, 2014; Oktay, 2012). According to Oktay (2012) and Schwandt (2001), SI was philosophically founded on the work of Charles S. Peirce (1839-1914), William James (1842-1910), John Dewey (1859-1952), and Charles Cooley

(1864-1929). These scholars represented the school of pragmatism in the Chicago tradition in American sociology. Briefly, pragmatism emphasises the union of theory and practice (Schwandt, 2001), that is “doing what works, instead of adhering uncritically to theoretical and philosophical principles” (Oktay, 2012, p. 10).

Robbins, Chatterjee and Canda (2006) defined “symbolic interaction” as follows:

> The dynamic process of interaction between the person and the environment that results in a self that is continually growing and changing. Symbolic interaction is based on the premise that identity involves shared significant symbols (or shared meanings) that emerge in the process of interaction with others. (p. 296)

Robbins et al. (2006) viewed the ontological stand of pragmatism as “[a] reality does not exist independently of meanings that are created, defined and acted upon by people according to their usefulness” (p. 321). SI suggests that researchers investigate the actions/interactions within individuals so as to understand the individuals’ meanings within a social context. Hence, pragmatism is compatible with SI, as well as with SGT in

terms of its contributions (4-6) mentioned above. Indeed, SGT has been used to generate theories at/from the micro-level (on the meanings and interactions of individuals), highly coherent with SI (Charmaz, 2006).

To understand the microscopic view of actions/interactions in SI, one may further refer to the three basic tenets set forth by Blumer (1969, p. 2):

1. Human beings act toward objects, events, or situations on the basis of the meanings that these things have for them.
2. The meaning of object, event, or situation is derived from, or arises out of, the social interaction that individuals have with other people.
3. Meanings are handled in, and modified through, an interpretative process, used by individuals in dealing with the object, event, or situation they encounter.

Mead (1932, 1934) also described microscopically that human beings interpret and construct meanings about their situations through an internal mental process, from which they

pursue their own plans by acting/interacting with others. Besides, Denzin (1989) argued for symbolic interaction:

> That interacting individuals define their own situations; that individuals are capable of engaging in self-reflective behaviour and, at the same time, can direct their own behaviour and that of others; and that in directing their own behaviour, individuals can interact with others and adjust their own behaviour as necessary (p.50).

Therefore, pragmatism and SI emphasise interaction, words, language, non-verbal behaviours, objects, and other symbols (i.e. symbolic) and culture as shaping the construction of meanings and actions, compatible with contribution (8) suggested above by SGT (Blumer, 1969; Denzin, 1989; Denzin & Lincoln, 2011; Mead, 1932, 1934). Taking an example drawn from this study, although a simplified one for explaining SI, in order to remind and encourage children to increase their water intake between classes, a bell is rung during recesses. The ringing is in itself meaningless unless teachers and children have symbolically and mutually constructed this in such a way that the bell being rung signals the time for drinking. Another example is that teachers utilise posters (a symbol)

to communicate health promotion messages within the school. That is, individuals must interpret the external world through symbols (e.g. the posters or reminders) in order to make sense, take action and interact (e.g. to adopt healthy lifestyle) (i.e. relativistic and intersubjective) (Blumer, 1969; Mead, 1932, 1934). Symbolic interactionism could be understood as the term given to describe the dynamic process of intersubjective interpretation between individuals about meanings through symbols, which guide and inform their actions (Blumer, 1969; Mead, 1932, 1934).

The criticism of SI is that its emphasis is solely on a micro-sociological level, without consideration of the macroscopic (Kuklick, 1984; Ritzer, 1996). It assumes that individual interactions are the fundamental dynamics of a functional society (Blumer, 1969; Mead, 1932, 1934), while social functionalism attempts to explain all human behaviours from the macro-society perspective, that individuals must ultimately perform as a cohesive and stable group (Maxwell, 2012; Schwandt, 2001). Therefore, SI is inadequate in addressing the groups, organisations and societies' actions and interactions, as well as the meaning constructing of individuals. In other words, being situated in the school systems,

the current contexts of the study on the HPS processes may generate theory beyond the application of SI.

To summarise, one of the modification of CGT is the SGT, which adopts the philosophical underpinning of SI. However, Glaser still insists that CGT is a philosophical neutral general method using constant comparative method. In keeping with this idea, this researcher continues to be as open as possible in the research processes to what emerged in its “own way”.

***3.2.2.2. Naturalistic inquiry.*** Naturalistic inquiry (NI) (Guba & Lincoln, 1982; Lincoln & Guba, 1985) is a paradigm of inquiry proposed to oppose the notion that the *scientific* paradigm (or the *rationalistic* paradigm) is the only legitimate inquiry to produce true science in social research. Briefly, NI *disagrees* with the scientific paradigm in three basical aspects::

a. Collecting large amounts of (quantifiable) data (i.e. the large the sample size, the better the evident claim) without considering the individual contexts and situations.
b. Relying heavily on its predecessors’ (grand) theories to make “logical” claims (i.e. hypothetical-deductive logic

and theory verification) which are irrelevant and inapplicable to real-life contexts.

c. Focusing on “main effects” (outcomes) while ignoring contingencies or important “side effects” (covariance and cofounders) (i.e. the linear causal relationship in a close system).

d.

Other criticisms of NI include the inability of the investigator to apply the scientific model in accordance with the design principles on which it is based (e.g. random sampling is practically impossible in a real-world situation that operate in an open system, and random assignment is not guaranteed to be error-free), and the fact that the results could be inapplicable or yield little meaning to application in individual contexts, no matter how astonishing a conclusion or how comprehensive a theory is formulated (see Guba & Lincoln, 1982). Therefore, Guba and Lincoln (1982) proposed the five axioms of NI:

a. The nature of reality: There are multiple intangible realities which can be studied only holistically rather than dissociated or controlled as in laboratory science. Thus, inquiry into these multiple realities will

inevitable diverge—as each inquiry raises more questions than it answers—so that prediction and control are unlikely to result, although some level of understanding can be achieved (see Guba & Lincoln, 1982, pp. 237-238).

b. The inquirer/respondent relationship: The inquirer (researcher) and the respondent (participant) interact to influence one another (co-construct). Special safeguards must be taken against both kinds of reactivity (see Guba & Lincoln, 1982, p. 238)

c. Nature of truth statements: The aim of inquiry is to develop an idiographic body of knowledge (results in inquiry are context-bound, and therefore neither reducible nor replicable). The knowledge is a series of "working hypotheses" that describe the individual case. Generalisations are impossible since phenomena are neither time- nor context-free, although some transferability of these hypotheses may be possible in some situations, depending on the degree of temporal and contextual similarity. Differences and similarities

are both interesting to the inquirer (see Guba & Lincoln, 1982, p. 238).

d. Attribution/explanation of action: An action may be explainable in terms of multiple interacting factors, events, and processes that shape it and are part of it, rather than just a linear causal relationship. (see Guba & Lincoln, 1982, p. 238 & p. 242).

e. The role of values in inquiry: Inquiry is always value-bound (inquirer values, paradigm choices, the choice of existing substantive theories, and values in socio-behavioural, human, and organisational phenomena). The inquirer could be of value-resonant or value-dissonant with the contexts of inquiry. (see Guba & Lincoln, 1982, p.238).

In other words, the naturalists do not try to eliminate the "subjectivity" of the researchers, but regard it as part of the "instrument" in the inquiry. Notably, theoretical sensitivity in the GTM (including CGT, SGT and constructivist GT) is regarded as a form of this "subjectivity" with which the grounded theorists try to keep as open-minded as possible so as to let relevant categories

(concepts) and hypotheses (conceptualisation and relationships among categories) emerge from the data, rather than assuming the researcher to be a *tabula rasa (*Charmaz, 2006; Corbin & Strauss, 2008, 2015; Glaser, 1978; Glaser & Strauss, 1967; Strauss & Corbin, 1990, 1998).

These naturalistic axioms are coherent with many of the tenets of the GTM. For example, naturalists argue that there can be no certain way of determining a cause-effect relationship, and prefer to think of multiple intertwined factors and conditions that “feedback and feedforward” (Guba & Lincoln, 1982). Hence, in GTM, there could be more than one “core category” on which substantive grounded theories are built. These grounded theories are hypotheses that are fit, workable, relevant and modifiable to the specific contexts of the area of study (Glaser, 1978, 1998). The tenet of the constant comparative method in GTM (Glaser & Strauss, 1967) is coherent with NI, as it reads “the naturalist is satisfied to tease out plausible connections between phenomena” (Guba & Lincoln, 1982, p. 242).

To conclude, possibly because the many tenets proposed in naturalistic inquiry (Lincoln & Guba, 1985) are carried forward in the debates of qualitative research methods. As such these tenets

have been applied to the debates and modifications in the GTM—on top of the original intentions and philosophical neutrality of CGT (Glaser, 2003). It is argued that the rises of SI and NI have also lead to the later development of constructivist ontology (Charmaz, 2006; Corbin & Strauss, 2015; Glaser, 2003, 2015), leading to the differentiation between CGT, from SGT and constructivist GT.

### 3.2.3 Ontological and epistemological neutrality of CGT

Having said that CGT maintains a philosophically neutral position, understanding the concepts of the debates is essential in order to inform a better understanding and application of the method chosen in the current study.

***3.2.3.1 Ontology of CGT***. Ontology is about "the worldviews and assumptions in which researchers operate in their search for new knowledge" (Schwandt, 2007, p. 190). Ontological questions ask for the form and nature of reality. For example, is there a "real" world (reality)? If there is a "real" reality, is it independently "out there"? If there is a reality "out there", is it

apprehensible? Ontology is “the study of things that exist and the study of what exists [*sic*]” (Latsis, Lawson & Martins, 2007).

Classic grounded theory does not position itself with any ontology (Breckenridge et al., 2012; Glaser, 2005). Glaser (2005) stated that “where grounded theory takes on the mantle for the moment of prepositivist, positivist, postpositivist, postmodernism, naturalism, realism, etc., will be dependent on its application to the type of data in a specific research” (p. 145). In other words, CGT is ontologically (and epistemologically) neutral and considers itself a “general method” to generate middle-range theories (Breckenridge et al., 2012; Glaser, 1978; Glaser & Strauss, 1967).

However, this neutral position of CGT is often and easily missed by qualitative researchers who criticise CGT as a positivistic/postpositivistic method. Some of the reasons for the criticisms are possibly due to the historically paradigmatic debates (Breckenridge et al., 2012; see also Creswell, 1998). Holton (2007) interpreted the philosophical neutrality of CGT by stating:

> This is not to say that CGT is free of any theoretical lens but rather that it should not be confined to any one lens; that as a *general methodology* [emphasis added], classic grounded theory can adopt any epistemological

> perspective appropriate to the data and the ontological stance *of the researcher* [emphasis added] (p. 269).

Therefore, the CGT researcher stays open to theoretical emergence (and hence the lens) with which s/he organises the emergent theory (Glaser, 2005). In this study, the data (the process of conceptualisation) suggested different possible philosophical lenses (or paradigms of inquiry) for analysis.

For example, the data suggested that Health-Promoting Schools (HPS) in Hong Kong are situated in an education system which is coherent with, but not limited to, the philosophical lens of critical realism. Critical realism (CR) is a combination of ontological *realism* and epistemological *relativism* (Maxwell, 2012). According to Maxwell, CR is regarded as a postpositivistic paradigm in a general sense.

The ontological realism of CR maintinas that there is a real world that exists independently of our perceptions, theories, and constructions. However, this “real world” or reality is stratified (Bhaskar, 1978, 1986, 1998). Briefly, CR assumes that social objects (such as social structures and mechanisms) of scientific knowledge are real, exist independently of human minds, and are

more intransitive (enduring). The theory generated by CGT, if we adopted the CR lens, reflects a perceived reality shared by a group of culturally and historically situated people (Lo, 2014).

Therefore, in this study, the participants were situated in the education system (schools) which is open and subject to the influence (constraints) of the pedagogical hierarchy, school policies, overarching policies from the EDB and the ethos (cultures) within and outside of the schools. Although the participants may be "controlled" or "constrained" in the system, their interactions could result in a "new way out". The original system (and constraints) could be changed and replaced by a more "advanced" system, so that the participants are empowered to perform, for example, health promotion and HPS. Accordingly, owing to the interactions of the participants and the "reality" (schools), CR composes of a relativist or constructivist epistemology.

*Relativism* assumes that reality does not exist independently from our perceptions and construction of it. Instead, there are "internal realities" in the form of multiple and intangible mental constructions, shaped by social interactions and experiences (Guba & Lincoln, 1994; Mills et al., 2006). While realism and relativism are mutually exclusive, they are not without variations of different

emphases, leading to “interbreeding” and hence the paradigmatic debates. For example, naïve realism draws heavily on the perception of senses, thus only the observables can claim to be real; *scientific realism* views the world described by science as real, allowing one to make reliable claims about the unobservable as observable (real) (Schwandt, 1997), thus experimentations, not solely observations, are legitimate in producing knowledge. *Historical realism* assumes an apprehensible “virtual reality” that is shaped and structured by social, political, cultural, economic, ethnic, and gender factors (Guba & Lincoln, 1994). Finally, *critical realism* retained an ontological realism while accepting a form of epistemological constructivism or relativism (Maxwell, 2012).

Similarly, relativism has been associated with other closely related philosophical ideas, such as symbolic interactionism (SI). For example, the data in this study also suggested that HPS is symbolic. Health promoters in schools utilise different “health symbols” (e.g. physical activities as symbol of a healthy lifestyle, the food pyramid and “3+2+1” as symbols of a well-balanced diet and lunchbox, and the health curriculum as symbols of health integration, etc.) in promoting health to students, so as to achieve the HKHSA Scheme.

The meanings of HPS can also be found from the data, as some health promoters associate HPS with the many initiatives that a schoolhas undertaken. Attaining awards in all these kinds of initiatives means that the schools are safeguarding students' wellbeing and hopefully their academic achievements. Personally, the meaning of HPS to some health promoters was a reflection of an expanded awareness of health.

These are examples of CGT possessing the openness and flexibility to adopt different philosophical underpinnings, such as CR, SI, and constructivism, as emerged from the data. The theory build upon on a core category, then illustrates, rather than a preconceived notion, a relevant philosophical lens (paradigm) that is fits and is workable for the specific contexts of the research area, the participants' main concerns and the resolutions of those concerns. These paradigms shed light on the choice among the epistemological variations as discussed below.

***3.2.3.2 Epistemology of CGT.*** Epistemology is about the process of thinking, the truths and beliefs that researchers seek (Denzin & Lincoln, 2001). The epistemological questions ask for

the nature of the relationship between the knower and the reality. In other words, what knowledge is and how it can be acquired.

Owing to the ontological neutrality of CGT, it does not position itself likewise with any epistemology (Breckenridge et al., 2012; Glaser, 2005). In other words, being grounded in the data, CGT could accommodate a variety of epistemological claims. Some of these epistemological variations are briefly discussed below. Notably, these epistemologies are rooted in ontological claims, hence combining to form the different paradigms. For example, *critical realism* is regarded as a philosophical lens of the postpositivistic paradigm, comprising of *realism* ontologically and *relativism* epistemologically.

As briefly illustrated above, the data of the study may suggest various possible philosophical perspectives (paradigms). If a researcher adopts an *a priori* philosophical lens in his or her approach to data collection and analysis, the philosophical assumptions (preconceptions) would limit the variety of other perspectives to be investigated further, distracting from identifying the main concerns of the participants. By contrast, if questions relevant to the main concerns of the participants were asked, then

the researcher would be redundant in choosing a paradigm *a priori* to a grounded theory research, especially in CGT.

***3.2.4.3 Methodology and methods of CGT.*** Methodology is "the process of how we seek out new knowledge. The principles of our inquiry and how inquiry should proceed" (Schwandt, 2007, p. 190). There are wide ranges of methodologies that are interrelated to the ontological and epistemological choices, forming the inquiry (research) paradigms (Guba & Lincoln, 1994). In other words, the *methods* of data collection adopted are indeed bounded to the research paradigms. For example, experimental designs in collecting data are allowed within the positivistic paradigm, such as randomised-controlled trials. However, interviewing is not appropriate within positivism. On the other hand, interviewing is a common data collection method within the interpretive paradigms (including relativism, critical theory, and constructivism).

These research paradigms may be commensurable with the others, depending on the beliefs (epistemology) and values (methodology) with which our data were acquired or created (different data collection methods). In the discipline of nursing, a

wide range of paradigms and data collection methods are adopted in different research (Charmaz, 2006).

As described in CGT, both quantitative and qualitative data could be used. Quantitative data could be generated by conducting a simple survey, or utilised through secondary data analysis. Qualitatively, the CGT researchers could conduct field observations and write field notes, as well as conducting interviews with participants in the studied area and in relation to the emerging theory. Other sources of evidence supporting the emerging concepts and theory could be obtained, such as artistic works, documents, and previous literature. All these sources are the “slices of data” in supporting the sole aim of generating a grounded theory in CGT.

Since CGT is just a general method of data collection from various sources (with theoretical sampling), it analyses the data by constant comparison method (to generate a theory), with the debates of epistemology and ontology contributing to Glaser’s criticisms of “remodelling”. In other words, the modified versions of the GTM (SGT, constructivist GT, and possibly other variations) are in fact a preconceived worldview with their methods. For example, researchers bind SI with SGT, and constructivism with

constructivist GT. The “philosophical neutral” characteristic differentiates CGT from these other versions (Glaser, 2014b).

To conclude, CGT is a general method for which there is no preconceived research paradigm.

***3.2.3.4 Inquiry of a paradigm compatible with CGT.***

Again, the CGT is a general method using a the constant comparative method to generate a middle-range theory without any preconceived ontological and epistemological underpinnings. However, there are methodological concerns with CGT, with which the researcher needs to consider the “compatibility” with the ontological and epistemological options, even they emerge from the data.

In the paradigm of *positivism*, the researchers believe in scientific methods (conventional hard sciences). The researcher also believes in verification (of hypotheses) and falsification (of theories). Methods of data collection rely on rigorous scientific research based heavily on hypothetical-deductive logic (Guba & Lincoln, 2005; Merriam, 1991). Clearly, however, CGT is *not* intended for theory verification, nor does it rely on hypothetical-deductive logic. The inductive constant comparative method does

not fit well with positivistic methodology (e.g. statistical analysis). However, quantitative data is analysed qualitatively (conceptualisation) in CGT.

*Postpositivism* shares many elements of positivism but is more relaxed. Instead of maintaining total objectivity with the "subjects" (such as behind a one-way mirror in the laboratory), postpositivists may allow subjective human truths. Postpositivists rely on quantitative data that is rigorously collected and analysed, but remain the possibility of incomplete apprehension of reality. Postpositivistic researchers also obtain qualitative data, but the process of data analysis is still mainly confined to hypothetical-deductive logic, and some usage of inductive logic in later development (Guba & Lincoln, 2005; Merriam, 1991; Merriam et al., 2007). The simultaneous usage of deductive and inductive logic, as well as imagination to make inferential leaps in theorising, is called abduction, as some argued in the case of GTM (Charmaz, 2006; Oktay, 2012).

Some researchers have considered CGT as a *late post-positivistic* methodology, with Glaser (2002) stating that:

> Grounded theory is a perspective-based methodology and people's perspectives vary. And as we showed in

> "Awareness of Dying" (Glaser & Strauss, 1964) participants have multiple perspectives that are varyingly fateful to their action. Multiple perspectives among participants is often the case and then the GT researcher comes along and raises these perspectives to the abstract level of conceptualisation hoping to see the underlying or latent pattern, another perspective (p. 5).

Simmon (2015) defended CGT as *not* an objectivist/positivist methodology. "Unlike objectivism, CGT is not about discovering an obdurate, objective reality independent of subjective realities; it is about discovering, conceptualising, and explaining *patterned subjective realities* [emphasis added], with full recognition that meanings are continuous, emergent social constructions" (p. 296).

Indeed, the minimal articulation of researcher-participant relationships and interactions in CGT maintains its high "compatibility" with (late) post-positivism, accepting both objectivity and subjectivity, hence the use of both quantitative and qualitative data. In contrast, the emphasis of interaction between

researchers and participants led to the development of SGT and constructivist GT.

The *interpretivism* and *constructionism* paradigms support hermeneutic and dialectic methodology, which compare and contrast dialogues, as well as looking for meanings from individuals and of phenomena. Therefore, data collection relies on observations, interviews, transcriptions and analysis of texts (Denzin & Lincoln, 2011). Besides constructivist GT explicitly positioning itself in this paradigm, CGT is actually "compatible" with the constructivism paradigm as Glaser (2002) declared in the paragraph cited above. Glaser (2002) stated that any constructivistic interpretation should be grounded in the data. Similarly, CGT allows the use of SI if the data suggests it. In fact, Glaser's criticisms of SGT and constructivist GT is directed to the preconceived use of SI and constructivism, which run a risk of "forcing", rather than rejecting them as valid perspectives if they emerge from the data.

In summary, CGT is neutral in ontology and epistemology. Indeed, it is "compatible" with various paradigms or interpretive frameworks (Creswell, 1998) once they have emerged from the data, including SI used in SGT and constructivism used in

Constructivist GT. Although different versions of GTM have their proponents and opponents, none of these can claim to be more "right" than the others (Glaser, 2015; Corbin & Strauss, 2008, 2015; Charmaz, 2000, 2002, 2006).

Glaser positions CGT as an independent alternative to other versions of GTM and QDA methods. Although there are criticisms directed towards the classic version, partially owing to the confusion of the historical philosophical debates in qualitative research, CGT is possibly the most "open" and "flexible" of all versions of GTM because of its ontological and epistemological neutrality (Gibson & Hartman, 2014; Simmon, 2015). The theory generated by CGT also possesses the highest compatibility of different possible paradigms as "driven" by the data (Glaser, 2015). Therefore, the researcher adopted CGT, along with all its tenets, in the processes of data collection and data analysis in this study.

## 3.3 Applications of CGT to the Present Study

In this section, the tenets (characteristics) of CGT will be discussed, in accordance with their applications in the data collection and data analysis processes. The tenets are constant comparative analysis, theoretical sampling and theoretical

saturation which are applied through interviewing, fieldwork, memo writing and memo sorting.

**3.3.1 Constant comparative analysis method.** The grounded theory method (GTM) adopts the constant comparative analysis method (constant comparison) with which data are constantly compared under simultaneous or concurrent sampling (data collection) and data analysis until theoretical saturation occurs (Corbin & Strauss, 2008, 2015; Glaser & Strauss, 1967; Glaser, 1978; Strauss & Corbin, 1990, 1998). In the process, the researcher constantly compares different incidents from "slices of data" for similarities, so as to conceptualise the data that form categories (codes, concepts, and properties).

Data are considered saturated if new data do not alter the categories. If differences, deviants and negative cases are identified through being compared and contrasted with the existing categories, the researcher needs to change his or her conceptualisation so that a new or refined category is produced to cover the new data.

The sampling procedures in CGT involve the researcher initially entering the area of interest without *a priori* assumptions (preconceptions, preconceived ideas, and professional interests)

and being guided by theoretical sampling throughout the whole research project (Glaser, 1978; Glaser & Strauss, 1967).

According to Glaser and Strauss (1967), constant comparison is based on the concept-indicator model. Incidents (interviews, observations, documented data, cases, art pieces, artefacts, etc.) are compared (constant comparison) in such a manner that conceptualisation (abstractions) is the main objective of coding (data analysis) until saturation of the categories (codes, concepts) occurs—the categories and their properties (subcategories, sub-concepts) have been richly conceptualised, and no more data are new to (change, add, modify) the categories and subcategories—that is, theoretical saturation (Glaser, 1978; Glaser & Strauss, 1967).

Constant comparison is the analysis method applied to the concepts of theoretical sampling, theoretical saturation and theoretical sensitivity in the data collection and data analysis processes of CGT.

**3.3.2 Principles in data management.** There are three interrelated "principles of doing" CGT: theoretical sampling, theoretical saturation and theoretical sensitivity. The principles

(tenets) are applied with the constant comparative method in the concurrent data collection and data analysis processes of CGT. Theoretical sampling is described as:

> The process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. This process of data collection is *controlled* [emphasis in origin] by theoretical sampling …. The general procedure of theoretical sampling … is to elicit codes from raw data from the start of data collection through constant comparative analysis as the data pour in. Then one uses the codes to direct further data collection, from which the code are further developed theoretically with respect to their properties and their connections with other categories until saturated. Theoretical sampling on any category ceases when it is saturated, elaborated and integrated into the emerging theory. (Glaser, 1978, p. 36)

In other words, theoretical sampling applies to two aspects: sampling of participants and sampling of slices of data.

***3.3.2.1 Theoretical sampling.*** During the recruitment of participants, the researcher has to find people to interview who best fit the emerging concepts and theories so as to enrich the categories and theory. It is different from traditional research (quantitative and qualitative) in which the inclusion and exclusion criteria of participants are set before the research is started and the researcher follows the protocol strictly without room for adjustment. Therefore, the participants in CGT are usually *not* homogeneous. They may come from different backgrounds, demographics and characteristics. The GT researcher does not know beforehand who the best participants (informants) are and where to find them. Only the emerging concepts (categories) and theory will inspire the researcher to find the next and subsequent participants throughout CGT research. This is also one of the main differences between the GTM and other qualitative research methods where the inclusion and exclusion criteria are in general not modifiable (Glaser, 1978, 1998, 2015).

On the other hand, theoretical sampling of slices of data allows the researchers to make constant comparison with data from all sources—the same source (e.g. the same interview transcript) and different sources (e.g. an interview and a document). As

suggested by Glaser (1978), most important are the *concepts* emerging from the incident, not what or whom the data are describing. As a simplified example, the concept of *leadership* is important, rather than the fact that Mr Chan is a principal, because leadership covers the qualities the principal possesses and how he serves. These concepts can be of different abstraction levels, some higher and some lower. *Leadership* is not the highest abstraction level; therefore it would not be the core category upon which a theory is built. However, it is conceptually higher than *principal,* which is barely at a descriptive level. In CGT, the higher the abstraction level of a category, the better it indicates the incidents (Glaser, 1978).

***3.3.2.2 Theoretical saturation.*** Theoretical saturation occurs when (a) no new or relevant data seem to emerge regarding a category; (b) the category development is dense; and (c) the relationships between categories are well established (Strauss & Corbin, 1990). According to Glaser (1978, 1992, 1998, 2005, 2015), the notion of theoretical saturation might be made more clear by considering the slightly differences between theoretical

saturation of a category and the theoretical saturation of the (emerging) theory.

For the theoretical saturation of a category, the saturated categories identified during the open coding stage are legitimised for use in the selective coding stage. On the other hand, as the emerging theory is built upon, through the selective coding stage, a core category is identified from the saturated categories (i.e. the core category and its subcategories are considered saturated at that moment). In addition of new data to the categories, which are temporary, in the open coding stage means that they are not yet saturated. Neither a core category nor an emerging theory (conceptualisations, hypotheses, and relationships) can be suggested since the selective coding stage has not yet started. If all data are saturated in the open coding stage, they are brought to the selective coding stage for the formulation of a temporary theory (emerging theory). In this stage, the core category is one that describes and explains the most variations of the phenomenon. Consequently, one could change to another core category (such as "upgrading" from an existing subcategory and "downgrading" from the original core category) by considering the theoretical saturation of the theory. Saturation in categories does not mean

saturation in theory, but a sophisticated theory is built upon categories that are saturated.

Theoretical saturation means that the researchers have selected a core category and started to relate with the subcategories through selective coding stage; new data added to this core and subcategories mean that the emerging theory is *not* saturated (i.e. there is insufficient conceptualising, hypotheses, and relating). However, usually the selected core category is almost (if not completely) saturated during the open coding stage and is still maintained to describe and explain most of the variations of the phenomenon (see Glaser & Strauss, 1967, pp. 61-62). The new data may suggest that the subcategories are not saturated, and the researcher then needs to go back to the open coding stage to compare "incident to incident" (conceptualising). However, these subcategories may be abandoned if they are found not to be relevant to the theory anymore; this was described by Glaser and Strauss as "delimiting the theory" (1967):

> As the theory grows, becomes reduced, and increasingly works better for ordering a mass of qualitative data, the analyst becomes committed to it. His commitment now allows him to cut down the original list of categories for

> collecting and coding data, according to the present boundaries of his theory …. Another factor, which still further delimits the list of categories, is that they become *theoretically saturated* [emphasis in original]. After an analyst has coded incidents for the same category a number of times, he learns to see quickly whether or not the next applicable incident points to a new aspect. If yes, then the incident is coded and compared. If no, the incident is not coded, since it only adds bulk to the coded data and nothing to the theory. (p. 111)

The criteria for determining theoretical saturation are "a combination of the empirical limits of the data, the integration and density of the theory, and the analyst's theoretical sensitivity" (Glaser and Strauss, 1967, p. 62). In other words, theoretical saturation of categories *in the theory* (but not those irrelevant to it) is a prerequisite for theoretical saturation; but for a theory to be saturated (complete), it is not necessary for all categories *of the data* to be saturated, since not all categories or incidents from the data are central (relevant) to the theory.

To summarise, theoretical sampling, theoretical saturation and constant comparison are three interrelated characteristics of the GTM. Theoretical sampling is determined by the emerging theory, but not the initial decisions (such as in purposive sampling) nor a preconceived theoretical framework. Theoretical saturation involves theoretical sampling and constant comparative analysis, which is cyclic and ongoing, through three progressive yet overlapping coding stages which will be discussed below (Glaser, 1978, 1992, 1998, 2001, 2011, 2005, 2015; Strauss & Corbin, 1990, 1998).

***3.3.2.3 Theoretical sensitivity.*** This is the attribute or ability of the researcher to code the data conceptually (rather than just remaining in descriptive coding)and constantly compare incidents to incidents to find more abstract codes that capture the main concerns of the participants and the strategies for resolving those concerns (conceptualising) (Glaser, 1978; Glaser & Strauss, 1967). Reading broadly about others' theories and literature within and outside of the researcher's field or expertise is a way to develop theoretical sensitivity. In general, experienced GT researchers have better theoretical sensitivity than novices, owing

to their experiences in research and greater knowledge base (Glaser & Strauss, 1967). However, novice GT researchers are usually more open and creative in conceptualising because previous professional knowledge may hinder the emergence of categories that genuinely represent the "latent patterns"; hence, creativity is an important aspect of theoretical sensitivity (Glaser, 1978). In other words, both experience and creativity contribute to the theoretical sensitivity of a researcher.

Therefore, the researcher can acquire his theoretical sensitivity by just doing GT—simultaneously data collection and data analysis through constant comparison with theoretical sampling (Glaser, 1998). Creativity, however, can easily be hindered if the researcher is not open-minded enough or starts the research with preconceived ideas about what the research settings, and who the best participants (informants) are, and what the theory will be. Cautiously, the research questions and interview guides can preconceive the direction of the theory (discussed in subsequent sections) (Glaser, 1978, 1998, 2015).

**3.3.3 Entering the area of interest.** As a tenet of CGT, the researcher entered the area without a priori assumptions or a

philosophical lens. Although the researcher was not a *tabula rasa*, he entered the field with an open mind as he reflected on the origin of interest.

The researcher participated as a volunteer student nurse in school health promotion activities during his undergraduate studies. By observation, having students walk in and out the nursing room was part of the experiences of a school nurse. However, there were some occasions when it was clear that school health is not just confined to a nursing station or a school. A series of episodes concerned with promoting health in schools as an important aspect of public health ignited the researcher's interest in the current Study.

In 2007, while serving in primary schools, the researcher was impressed by the school nurses, whose work was not limited to the nursing room, for example, taking care of students who were injured and dressing their wounds; checking abdominal pain and reassuring students that appendicitis was unlikely; escorting a student to the accident and emergency department owing to food poisoning after eating a homemade lunchbox. The nurses also organised health checks, educational talks, basic life support workshops, and seminars with other school health personnel, and

gave feedback and suggestions on existing health practices in the school to principals, teachers, experts, and scholars, as well as to politicians in the community. The school nurses were seen by the researcher as the health experts in schools and the most important people in safeguarding the students' health, yet the nurses said the role was more complicated than one may imagine.

In 2008, the researcher graduated from university and worked in a public hospital in which he looked after many surgical patients who were undergoing chemotherapy, surgical procedures, or other treatments related to non-communicable diseases. After being discharged, these patients lived with compromised quality of life owing to the complications of their conditions. The researcher remembered the experiences of voluntary services in schools and realised the wisdom in traditional Chinese medicine—"the best healers cure before one is sick". He imagined that one's health conditions could differ greatly if people learned and chose to adopt a lifestyle, for instance during childhood, which could possibly free them from chronic diseases. In addition, the number of patients overwhelmed the healthcare system so that health care services and holistic patient care were compromised. Frontline health care workers and professionals were suffering under a tremendous

workload and stress, which were having negative impacts on their health and quality of life.

These reflections led the researcher to look upon health promotion in children, and hence in schools, and at the same time to reflect on the meaning of health. Public health issues have required major investment in the part of governments worldwide in terms of disease prevention and health promotion. The arm of disease prevention directs health care providers to focus on how to maintain healthy states for people who are understood to be vulnerable to and inevitably subjected to disease and illness, aging and death. This philosophy of disease prevention has clear goals of preventative healthcare, and soothing the ills of those suffering from diseases and illnesses, as well as extending life expectancy. The other arm of health promotion directs health care providers to focus on guiding people to pursue healthy lifestyles, thus maintaining good health and enjoying a good quality of life.

While these reflections that came to the researcher's mind may not have been thorough, they gave rise to the question, "What is promoting health in schools about?" To answer this question, more questions came: "Who else, besides a school nurse or a health care professional, is responsible for disease prevention and health

promotion in schools?"; "How are the concepts of health implemented in schools by those who have not been trained in the health sector, such as teachers and principals?" The researcher was particularly interested in how schools in Hong Kong implement the World Health Organisation Health-Promoting Schools Initiative. Therefore, the working topic of this study "Implementing strategies for attaining Health-Promoting Schools Awards in Hong Kong" was developed.

**3.3.4 Setting of the study.** The setting of the study and the source of participants (health promoters) were public primary and secondary schools (including special schools) in Hong Kong—a Special Administrative Region (SAR) of the People's Republic of China.

***3.3.4.1 Legislative context.*** Under the Basic Law, Hong Kong SAR has a high degree of autonomy and enjoys executive, legislative and independent judicial power (see Basic Law, Article 2). Hong Kong residents also enjoy different rights and freedoms, such as civil, political, economic, social and cultural rights; freedom of speech, of the press and of publication; freedom of

association, of assembly, of procession, of demonstration, of communication, of movement, of conscience, of religious belief, and of marriage (see Basic Law, Articles 27–39). Educational institutions retain their autonomy and enjoy academic freedom. People also enjoy freedom of choice of educational institutions and freedom to pursue their education inside and outside Hong Kong (see Basic Law, Article 136–137).

***3.3.4.2 Population.*** Hong Kong is one of the most densely populated places in the world. According to the Census and Statistics Department (2015) and the EDB (2016o), Hong Kong's population was about 7.24 million at mid-2014, representing an increasing trend of 0.8% on average annually, and the land population density is about 6,690 people per square kilometre. Hong Kong was described in history as a "barren rock" but has now developed as a world-leading financial, trading and business centre (Lee, 2009).

Hong Kong's population is aging, the birth rate remains low, and the education level has improved. According to the CSD (2015) and EDB (2016o), the median age of the total population was 42.8 at mid-2014. Age groups below 24 constituted 22.6% of the total

population. For the population aged 15 and over, more than half have completed secondary school, and about 30% have attained post-secondary level education (sub-degrees, undergraduate or top-up degrees).

***3.3.4.3 Educational context.*** Educational policies formulated and executed by the EDB of the Hong Kong SAR Government ensure 9 years' free and universal primary (6 years) and junior secondary (3 years) education to all children attending public sector schools. Starting from the 2008/09 school year, the government provided free senior secondary education through public sector schools as well. In September 2014, there were 452 primary schools (about 2.6 millions enrolment), 395 secondary (day) schools (about 3 millions enrolment) and 60 special schools (no enrolment figures) in the public sector.

While these facts about Hong Kong set the contexts of research for the study, CGT does not assume any of these descriptions to be of relevance, unless they have theoretical relevance. However, Hong Kong's high degree of autonomy and academic freedoms of Hong Kong that allowed the researcher to

conduct the present study, as well as giving scope for the schools to implement the WHO HPS framework.

**3.3.5 Recruitment of participants.** According to the principle of theoretical sampling described in CGT, the recruitment of participants is "driven by the data" and is a simultaneous process concurrent with data analysis (Glaser, 1978; Glaser & Strauss, 1967). Initially, the researcher entered a field of interest without *a priori* knowledge of what kind of participants would be the *best* type of informants, but the informant should be able to give thick and rich data concerning the area of study, so as to ensure the generality of both the scope of population and the conceptual level of the theory (Glaser & Strauss, 1967; Lincoln & Guba, 1985; Charmaz, 2000). Therefore, the researcher adopted a purposive sampling technique with the following criteria, which it was hoped would bring rich data from the participants at the initial phase of the study:

1. The health promoters are currently and have been working in school settings in Hong Kong for more than 2 years.

2. The health promoters' schools have received the Hong Kong Healthy School Awards (HKHSA).
3. The health promoters are responsible for the application process of the HKHSA or coordinating the activities for attaining the HKHSA.

Health promoters are any persons or stakeholders participating in health promotion activities. Health promoters in schools include principals, vice principals, teachers, non-teaching staffs, social workers, school nurses, parents and students.

***3.3.5.1 The process of recruitment.*** At the beginning, the researcher browsed online for the list of awardees of the HKHSA and contacted the awarded schools via direct phone calls to the school general offices and invitation emails to the school principals. In addition to the above-mentioned initial inclusion criteria, the researcher formulated an imaginary matrix of school categories to guide the recruitment of participants. Non-HPS schools were also included (Table 3) so as to maximise the similarities and differences in responses to the initial research questions (of becoming, attaining, and sustaining) (Glaser, 1978; Glaser &

Strauss, 1967). The HSC was a scheme established later than the HKHSA by the Centre for Health Education and Health Promotion of CUHK, whereby schools were required to “sign a contract” to take a pledge regarding their intentions of becoming an HPS. While the HSC is independent of the HKHSA, some schools considered that signing the HSC was a step before applying for the award. On the other hand, HPS schools can also sign the HSC. Similar to the HKSNA list of awardees, the list of schools having signed the HSC was available to the public online. The researcher contacted the schools via phone calls and invitation emails.

Ideally, the researcher planned to recruit participants from schools of all different categories (Table 3). However, the response to direct phone calls and emails was poor (with no answer or reply, or declining to be interviewed). It was impractically to recruit schools that were non-HPS (Table 3). However, as cautioned by Glaser (1978, 1998, 2015), it was recognised that preconception of the relevance of the data from non-HPS schools may lead to “forcing”. Therefore, the researcher continued recruitment of participants as guided by the principle of theoretical sampling.

Table 3
Matrix of school categories in guiding recruitment of participants [a]

| | Kindergarten | Primary [b] | Secondary | Special [c] |
|---|---|---|---|---|
| HPS | | 5 (I, J, K, L, M) | 1 (P) | 5 (A, B, C, D, F) |
| Non-HPS | | 2 (N, O) | | 2 (G, H) |

[a] Schools were labelled in capital letters. Numbers denoted frequencies of schools fitting the categories. Schools fitting the categories were bracketed.

[b] A convenient label E (not shown) denotes the individual interview with a participant who was a Registered Nurse recruited by a local university. She was responsible for coordinating school health promotion activities in various primary schools, including schools F, I and O.

[c] Special schools (public sector) include primary and secondary education. Others are normal schools.

***3.3.5.2 Number of participants.*** Since the study adopted the theoretical sampling of the GTM (Charmaz, 2006; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967), it was impossible to make *a priori* calculations or exact prediction about the sample size or the number of participants. In addition, the study adopted both individual interviews and focus groups, hence prediction of the number of participants was not feasible. However, Charmaz (2006) suggested that 25 interviews (assuming all were individual interviews) might be sufficient to reach theoretical saturation for a small-scale study. Creswell (1998) suggested a

range of 20 to 30 people (assuming each individual participated once only) to saturate the categories and detail a theory (p. 65). Mason (2010) summarised the mode, mean and median sample sizes of other Ph.D. studies using the GTM as 25, 32 and 30, respectively.

***3.3.5.3 Theoretical sampling in recruitment of participants.*** This is the process of data collection "for generating theory whereby the analyst jointly collects, codes, and analyses his data and decides what data to collect *next* [emphasis added] and where to find them, in order to develop his theory as it emerges" (Glaser & Strauss, 1967, p. 45). The process of data collection is controlled by theoretical sampling according to the emerging theory (Glaser, 1992).

At the beginning of a research study, therefore, purposive sampling is used by the researchers who enter the field of interest with as little *a priori* assumption as possible (Glaser, 1978; Glaser & Strauss, 1967), although some basic preliminary predetermined criteria of the subjects, such as occupation and profession, age and gender might be set as an entry guide (Patton, 1990). However, as mentioned above, Glaser (1978, 1992, 1998, 2005, 2015) warned

against the preconceptions of any relevance of the subjects' demographics. As data collection and data analysis continue simultaneously, and the categories and their properties emerge through constant comparison, the researchers make further decisions about participants, sampling, settings and the type of data to be collected (Corbin & Strauss, 2008, 2015; Glaser, 1978, 1992, 1998, 2005, 2015; Glaser and Strauss, 1967; Strauss & Corbin, 1990, 1998). Hence, theoretical sampling is in a sense purposive sampling driven by a theoretical decision. Theoretical sampling thus could start from the beginning of data collection through constant comparison, and pause if those categories are "saturated, elaborated and integrated into the emerging theory" (Glaser, 1978, p. 36). However, this is not the end of data analysis. Engaging in theoretical sampling presumes generating new directions for further investigation and clarification through concurrently coding and analysing the data. Often, another cohort of participants may be necessary. Theoretical sampling is complete when the researcher reaches theoretical saturation of the data (Glaser & Strauss, 1967; Strauss & Corbin, 1998).

In addition, the researcher invited the staff in a special school to participate in a focus group (the use of focus groups is

discussed in the following section). All participants in the first focus group matched the inclusion criteria. However, the group dynamic illustrated that the school nurse was the main agent (health promoter) in the HPS process. The principal also highly recommended the school nurse as the HPS coordinator. Therefore, the researcher conducted a number of individual interviews with school nurses after the first focus group (Table 4). The second to the ninth interviews (all were individual interviews) were all conducted with school nurses.

Glaser (1978, 1998, 2015) suggested that initial interviews should be conducted “freely” without stringent criteria so as to accumulate theoretical richness and relevance through simultaneous data collection and analyses. While conducting these individual interviews with the school nurses, the researcher concurrently analysed the data, based on which he theoretically sampled and arranged the next interview whenever possible and theoretically plausible. Table 4 illustrates some theoretical insights gained from the interviews. The researcher was inspired to conduct subsequent interviews (both individual interviews and focus groups) with different schools (primary, secondary and special) and health promoters (including parents and students) so as to accumulate

theoretical richness. As such, all twenty tow interviews were conducted as guided by the theoretical sampling strategy (Table 4).

Table 4
Theoretical sampling in guiding recruitment of participants

| Type | Chrono-logical order | Key theoretical insights from the interviews | Theoretical sampling in subsequent interviews and data analysis |
|---|---|---|---|
| FG1 | 1 | The school nurse was the coordinator of HPS in the team or the school. | To interview more school nurses, individual interviews were preferable. |
| I1 | 2 | Departure of core members from the HPS team delayed HPS progress. | To consider staff who left the HPS team or the school as potential informants. |
| I2 | 3 | Principal turnovers affected HPS progress. | To interview principals, both current and former (e.g. retired). |
| I3 | 4 | Coordinating HPS by the school nurse created administrative difficulties. | To interview teachers who are experienced in administration or HPS. |
| I4 | 5 | History of health promotion in schools preceded HPS. Schools doing HP well may not apply to HPS. | To include non-HPS schools. To interview non-stationed school nurses or healthcare professionals |
| I5 | 6 | Better timeliness and higher availability in HP of a stationed school nurse | To focus on school's internal dynamics, such as the HPS team. |
| I6 | 7 | The SN was not the leader/coordinator of HPS | To identify other core members in the HPS team. To interview normal schools. |
| I7 | 8 | Initiatives beside HPS exist. They could be coherent or competing with HPS. | To compare schools doing other school programmes with or without participating in HPS. |
| I8 | 9 | Vague and constrained school nurse roles suggest low level of participation in health promotion | To explore the school's structures and systems. FG may be useful. |
| FG2 | 10 | HPS is both bottom-up and top-down, as well as structural | To organise FG with principals |
| FG3 | 11 | ER shaped HPS. HPS required reform in school's internal structure. | To interview School L for more in-depth discussion on ER and internal reform. |
| FG4 | 12 | Establishment of a supportive school structure and ethos were essential to HPS. | To compare between first-time HPS winners and multiple HPS winners |
| FG5 | 13 | Sustainable HPS required school-to-school and community networking. | To explore structures and systems outside of the school. |
| FG6 | 14 | Parent and student participations; structure establishment | To explore school's structure and its relationship with stakeholders' participations. |
| I9 | 15 | ER shaped HPS. New EDB curriculum (HMSC) is coherent with HPS. | To explore ER, new curriculum and policies. |
| FG7 | 16 | New EDB curriculum supports HPS team formation | To explore the relationship between structure and the HPS process |
| FG8 | 17 | School-based management shapes HPS | To interview members of the school management committee (e.g. principals). |
| I10 | 18 | HPS as a staff development strategy. Administrative supports required. | To compare with non-HPS schools. |
| FG9 | 19 | HPS and other initiatives/school programmes required external resources. | To compare with winners of other awards |
| FG10 | 20 | Valuing initiatives beside HPS. | To compare with winners of other awards |
| FG11 | 21 | Internalised initiatives (e.g. HPS) required fewer internal and external resources. | To explore the school's structure. To compare with secondary schools. |
| FG12 | 22 | Balancing health and educational goals | To focus on policies and structures |

EDB–Education Bureau; ER–Education reform; HPS–Health-Promoting Schools

**3.3.6 Data collection method.** The researcher accessed multiple sources of data, consistent with the notion of "all is data" in the GTM (Charmaz, 2006; Corbin & Strauss, 2015; Glaser, 1978; Glaser & Strauss, 1967). The data collection strategies included interviews and school documents (e.g. school health policies). Demographic data sheets, contact summary sheets and field notes were also used to record observations during fieldwork. In this Study, the main sources of data were interviews and school documents.

***3.3.6.1 Focus groups and individual interviews.*** The researcher utilised focus groups and individual interviews in the study. Focus groups have been considered appropriate for grounded theory studies owing to the GTM notion that all is data, different slices of data and multiple data sources (Glaser, 1978; Glaser & Strauss, 1967; Hernandez, 2011). Focus groups were used to elicit the interactions and team dynamic of health promoters in doing HPS, while individual interviews were used to allow the researcher to investigate the more in-depth and personal experiences of the participants (Albrecht, Johnson & Walthier, 1993). Participants in the individual interviews were able to talk on

sensitive issues that may not have been able to express comfortably in focus groups (Krueger, 2000; Larsson et al., 2007; Morgan & Krueger, 1993).

However, the strength of the focus group for observing group dynamic could have become a weakness if the group dynamic had been negative, limiting participation or freedom of expression (Hernandez, 2010). For example, the researcher attempted to conduct the first interview with a focus group formed by a principal, a vice-principal, teachers and a school nurse. The researcher noticed that the school nurse and principal dominated the discussion, owing to their considerable contributions and experiences in coordinating the HPS project. However, the school nurse was hesitant to talk in the focus group about the overwhelming workload assigned to her by the principal. Hence, an individual interview was conducted with her, to allow her to express her "main concerns" freely. This is also an example of theoretical sampling occurring even in an early stage of grounded theory (Glaser, 1978; Glaser & Strauss, 1967).

*3.3.6.1.1 Interview guides and transcripts.* Classic GT suggests that the researcher should conduct interviews without

preconceived ideas, and that the notions of “accuracy” and “complete descriptions” of QDA do not apply to CGT (Glaser, 1978, 1998; Glaser & Strauss, 1967). Glaser argued that the main use of interview transcripts is to *conceptualise* data, rather than to achieve a complete description or coverage (Glaser 1998; see Glaser, 2001, pp. 166-184). In addition, an interview guide was not necessary because the researcher was *not* researching for his *professional interests* (i.e. forcing), but to explore the participants' main concerns, and the strategies that they used in resolving those concerns (i.e. emerging from the data) (Glaser, 1978, 1998; Glaser & Strauss, 1967). However, other GT researchers (e.g. Charmaz, 2006, 2010, 2012; Corbin & Strauss, 2015)—usually in the SCG or constructive GT—recommended that novice interviewers use a semi-structured interview guide, but at the same time remain open-minded.

Therefore, the researcher (a novice) adopted both the suggestions from CGT and other versions of GT and used an interview guide at the beginning of the research (Appendix I and II). The researcher formulated open questions, as well as predicting possible questions around the aim and research questions of the study. The interview guide served to remind the researcher about

the topics that needed exploring, but at the same time to remain open, flexible and theoretically sensitive to the concepts emerging during the interviews (Charmaz & Belgrave, 2012). In contrast to quantitative surveys, the researcher did not follow the same sequence or use the same wordings in posing questions in this grounded theory study. Being flexible and open, the health promoters expressed their stories about implementing the HPS, their relevant concerns, and the strategies used to resolve these concerns. The questions were shaped and directed by the content of the discussion and the exploration of the relevant categories with constant comparison, so as to gain a richer and broader scope of data relevant to the emerging process. Modifications were made to the interview guide (questions) during the process of concurrent data analysis and data collection.

Glaser (1998, 2001) agreed that computer-assisted qualitative data analysis software (CAQDAS) could be an advantage. When GT researchers work in a team and not all members may be able to attend the interviews or fieldwork, the computer technology (although time consuming) can help the team to communicate the data collected. This was the case for the researcher and his supervisors, since only the researcher carried out

the data collection. The other team members were able to benefit from the records in CAQDAS.

Considering that interviewing is one of the major data collection methods in GT research, and because the researcher (a novice) was working under the guidance of his supervisors who are experienced in qualitative research as a team, the interviews were audio-recorded and transcribed verbatim into Cantonese for analysis. Extracts that have been included in the final report were translated into English. Microsoft Words (Office 2007) and NVivo 10/11 were used for data storage and subsequent data analyses (see Section 3.3.5).

Demographic data sheets, field notes, and memos were also written up as soon as possible after each interview, while the memories of the observations were still fresh (Glaser, 1978, 2015); these will be discussed in the following sections.

#### ***3.3.6.2 Field notes of interview and field observation.***

Classic grounded theory suggests immediate coding and conceptualising of the data after each interview and fieldwork (Appendix III and IV), even before the interview tape recordings have been listened to and transcribed (Glaser, 1978, 1998, 2001,

2003, 2011). This allows timely conceptualising before the researcher forgets what was observed and reflected during and after the fieldwork and interview. Traditionally, interview recording and transcribing are not recommended in CGT, hence Glaser (1998) highlighted that field notes should be written as soon as possible and that coding done with field notes is then possibly the first step of data analysis in CGT. He described the purpose of field notes as follows:

> Grounded theory uses the incidents in field notes as illustrations of the meaning of categories and their properties and their interrelations. It does NOT [emphasis in origin] use incidents as evidence of findings. As illustrations for grounded theory, field notes in the researchers own words are enough for illustrating generated hypotheses and the concepts within them. As evidence of findings in routine qualitative research, however, taping can be seen as producing the verbatim, accurate data for verification of the descriptions. But this is not the purpose and goal of grounded theory. (Glaser, 1998, p. 113)

Having noted the the different emphases in the purpose of field notes and interview transcripts, the researcher does not need to reject the idea of transcribing interviews, as long as he focuses on conceptualisation. The procedures of writing field notes and writing memos are the same, but the concepts are slightly different: Field notes are written immediately after the interviews and field observations, while memos are written any time during the process of data analysis, including at the time of writing field notes. In practice, writing field notes is the same as writing memos (memoing), in that they can be written in any format and style. Field notes are different from memos in some of their content: field notes may contain some "facts" about the settings, but memos focus on conceptualisation of data beyond facts and descriptions. Memos are also written later, during the continuous data analysis; with memos, the conceptualisation of data may be more fruitful than with field notes. Memoing can be (and usually is) done on top of field notes, since data analysis continues and constant comparison leads to more memoing, while field notes are written just after the interview, which may only yield limited (yet still useful) concepts and conceptualisation. With this fine differentiation between field notes and memoing, it can be

concluded that memo writing and sorting are more important than the field notes written after fieldwork or an interview, since memo sorting is the main conceptualisation process of theory generation in CGT (see Glaser, 1998). However, both field notes and memos serve the same purpose, that of documenting every emerging idea and concept for the generation of theory..

*3.3.6.2.1 Field observations in schools.* Whenever possible, the researcher asked permission from the schools to have a school tour on the interview day (School A, B, C, D, F, I, K, L, M, N, and O). This helped to orient the researcher to the environment of the school in which the health promoters and the students were situated, thus enabling him to know what was salient for exploration. In the schools that allowed guided tours, the principals (School A, L, O, and N), teachers (School I, K, M, P), and school nurses (School A, B, C, D, F) guided the researcher, so details and stories could be reviewed through conversations. It helped the researcher to generate ideas for further research and to build rapport with the participants and stakeholders, including the students.

The researcher also kept in contact with the participants. He has been invited to join health-related activities organised by the

schools. Participation in these activities enhanced the rapport between the researcher and the participants, and increased the opportunity to learn about their work and perspectives. According to Lincoln and Guba (1985), field observation (1) maximises the inquirer's ability to grasp motives, beliefs, concerns, interests, unconscious behaviours, customs, and the like; (2) allows the inquirer to see the world as his subjects see it, to live in their time frames, to capture the phenomenon in and on its own terms, and to grasp the culture in its own natural, ongoing environment; (3) provides the inquirer with access to the emotional reactions of the group introspectively—that is, in a real sense, permits the observer to use himself as a data source; and (4) allows the observer to build on tacit knowledge, both his own and that of members of the group. The researcher recorded the observations, reflections and theoretical insights in field notes and memos.

However, in reality, no schools allowed the researcher to stay for a whole working/teaching day to observe classroom teaching or physical education lessons, owing to the tight schedules of teachers and inconvenience to the school management, therefore no full-day observations could be made inside classrooms (a limitation of this study). However, general observations are useful

in exploring a school's physical environment, as well as its social environment through observing students' and teachers' interactions during recesses and lunch breaks. In addition, in CGT any conceptual insufficiency due to insufficient observation can be corrected through constant comparisons of data, since the concepts will emerge from other slices of data (such as interviews and school documents). At best, the researcher participated in health promotion programmes and short observations during recesses, lunch breaks and after-school hours in some participating schools (School A, B, C, D, F, I, K, L, M, N, and O). Although the observations were short, the timings was spread throughout the early, middle, and later stages of the data collection processes, enhancing the theoretical sensitivity during the research process.

***3.3.6.3 Contact summary sheets.*** Similar to writing field notes, Glaser suggested that the researcher can write a summary as soon as possible in any formats with which he can even do the coding and memo writing before any "data entry" in the computer or the use of CAQDAS. The contact summary sheet (Miles & Huberman, 1994) serves this purpose.

Miles and Huberman (1994) suggested that a contact summary sheet should contain the name of the interviewer and the identifier of the participants (e.g. a code to maintain confidentiality), the date of interview or contact, as well as the date on which the summary or reflection was written. The date of summary should be as close to the date of contact as possible to ensure the memory is fresh (Glaser, 1998). Otherwise, the incomplete contact summary sheet reminds the researcher to reflect on the interview, or suggests repeated occurrences of the same incident, which may be an indicator of concept saturation. Miles and Huberman (1994) suggested that the researcher answer a few questions on the contact summary sheet: "What were the main issues or themes that stuck out for you in this contact?", "What discrepancies, if any, did you note in the interviewee's response?", "Was there anything else that stuck out as salient, interesting, or important in this contact?", and "How does this compare to other data collected?". Glaser noted that any discrepancies from the interviews are just more "slices of data" ready to be compared—the notion of constant comparison in CGT—so as to conceptualise for categories and properties which will be more fit to the emerging concepts and theory.

Therefore, a contact summary sheet (Appendix V and VI) was designed to facilitate the documentation and quick review of significant findings for each interview, coding and conceptualisation of data (Glaser, 1998; Miles & Huberman, 1994). It also served to remind the researcher about the direction for further exploration in the next and subsequent interviews—the notion of theoretical sampling in CGT.

***3.3.6.4 Demographic data sheets.*** In CGT, earned (theoretical) relevance is the prerequisite for the use of participants' demographic data (Glaser, 1978). In other words, in this study it was important that the researcher did not preconceive age, gender, occupation, and even the experiences of teaching and engaging in health promotion as being associated with the process of becoming a Health-Promoting School. However, a demographic data sheet could help the researcher to gather basic information about the participants, so as to make use of this information in theoretical sampling and conceptualisation of the data.

For example, the occupations "school nurse", "principal" and "teacher" (participant demographics) were theoretically relevant in *group dynamics* (a subcategory in the coding) because

the principal had *positional authority* (a property of the subcategory *group dynamics*) in the school system in decision making regarding the school's *development direction* (a subcategory; *leadership style* [a subcategory] is the contingency [a kind of property] related to this subcategory). If a theory were to build upon on a certain kind of "core category" (imaginary at this moment), all these categories could be linked together because they are all relevant. Therefore, at least some of the demographic information (in this case "occupation") was relevant to the emerging theory that was grounded from the data.

Therefore, a demographic data sheet (Appendix VII) was designed to collect information about the health promoters, including gender, age, school particulars, marital status, educational level, occupation, employment status, salary, work experience, and religious belief. All of these slices of data could potentially form the contexts in which the health promoters interpreted their experience in the HPS and other projects in the school. The researcher had no preconceived assumptions about these data unless they were mentioned by the health promoters as significant (Glaser, 1978).

***3.3.6.5 Documents and school health policies.*** Classic grounded theory utilises all sources of data. Conceptualisation of these data is the main purpose in formulating the theory. Although the WHO HPS Framework mentions “school health policies” as one pillar of HPS, the researcher, as guided by CGT, did not assume that school (health) policies would be relevant to the process (main concerns) of the participants until they emerged from the data. Indeed, the existence of a school health policy was essential according to the participants, for it authorises (legitimises) HPS in schools.

Under the School-based Management Initiative (SMI) of the HKSAR government (EDB), schools are required to make their school development plans, reports and policies transparent to the public. Therefore, a school health policy document is readily accessible on the school’s webpage. In the beginning, the researcher intended to explore the official criteria accreditation of the HKHSA. However, the “online evaluation system” of the HKHSA Scheme requires registration, and only participating schools are authorised to access it. It is agreed between the participating schools and the CUHK that these data are confidential. Respecting the participating schools’ decision and ethical

principles, the researcher had no access to any related accreditation systems of the scheme. Therefore, he made use of other literature directly related to the scheme (e.g. Lee, 2005, 2009, 2014). Grey literature has also been retrieved from the Internet as data for comparison, including that from overseas HPS programmes.

To conclude, CGT involves concurrent data collection and analysis. Theoretical sampling, theoretical saturation and theoretical sensitivity are the three principles applied throughout the whole research. Data collection methods allow the uses of qualitative and quantitative data. Common means of data collection include interviewing, fieldwork and comparing other relevant data sources. Utilising the constant comparative analysis method, the researcher analyses the data using various overlapping procedures and techniques, including field notes and memos. In the following section, the data analysis procedures and coding stages of CGT will be further discussed.

**3.3.7 Data analysis.** Data analysis is conducted simultaneously with data collection, as suggested by CGT (Glaser & Strauss, 1967; Glaser, 1978). It involves various yet overlapping

stages of coding, memo writing and sorting, which finally result in a substantive theory. In this study, the researcher relied mainly on data from interviews, which were the richest source, as well as documents on school health policies, as guided by the emerging theory. Since fieldwork was less frequent, field notes were treated as one of the slices of data, yet not the major one.The following subsections will discuss the open coding, selective coding and theoretical coding stages.

***3.3.7.1 Coding and categorizing data.*** Coding is the conceptualizing of incident with incident and incident with concepts to identify more categories and their properties (Glaser, 1992), which is the initial step in the process of theory development (Charmaz, 2000, 2007, 2014). Glaser (1978) introduced coding families to guide researchers as to the possible dimensions that can be coded, such as the Six Cs: causes, contexts, contingencies, consequences, covariances and conditions (Figure 2). Coding families are theoretical codes that may *or* may not be needed (as implicit) during any stages of coding: open coding, selective coding and theoretical coding.

*3.3.7.1.1 Open coding.* Open coding is the process of breaking down the data from interviews or field notes into analytic pieces (incidents), which can then be raised to the conceptual level (Glaser & Strauss, 1967). The researcher "generates an emergent set of categories and their properties that fit, work, and are relevant for integrating into a theory" (Glaser, 1978, p. 56). From the beginning, the researcher keeps in mind a few general questions: "What is the data a study of?", "What category or property of a category, of what part of the emerging theory, does this incident indicate?", "What is actually happening in the data?", "What is the main concern of the participants", and "what is the strategy that the participants used to solve the concerns?" (Glaser, 1978, p. 57). The pattern of many similar incidents will then be given a conceptual name (i.e., coding).

According to Glaser (1978, p.38), a *code* can be a concept, a category or a property. A *concept* is "the underlying meaning, uniformity and/or pattern within a set of descriptive incidents". A *category* is "a type of concept which is usually used for a higher level of abstraction". A *property* is "a type of concept that is a conceptual characteristic of a category, thus a lesser level of abstraction than a category. A property is a concept of a concept".

A category is saturated if the many incidents keep indicating the same pattern and no new properties emerge. Glaser and Strauss (1967) suggested that there are different ways of doing open coding: (1) line-by-line analysis, closely examining phrases, words or sentences so as to achieve a full theoretical coverage that is thoroughly grounded; (2) sentences or paragraphs; or (3) entire documents, depending on the type of data collected, the skills of the collectors, the kinds of interviews or observations, and the density of ideas in the data. The researchers should also keep in mind that "all is data". In the open coding stage, the codes generated mostly conceptualise the empirical substance of the area of research, thus they are also called "substantive codes" (Glaser, 1978). As the data analysis continues, writing memos in-between the coding process is common; the researcher conceptualises how the substantive codes may relate to each other as hypotheses to be integrated into the theory (memo sorting) (Glaser, 1978). Thus, in conjunction with "substantial codes" and as the researchers may also conceptualise their memos (memo sorting), the codes (relationship, conceptualisation, hypotheses) may also be called "theoretical codes". Glaser (1978) commented that "the analyst should not assume the analytic relevance of any face sheet variable

such as age, sex, social class, race, skin colour etc., until it emerges as relevant" (p. 60). Open coding ends when all categories are saturated and the core category has been identified.

The generation of theory occurs around a core category (Glaser, 1978). A core category accounts for most of the variation in a pattern of behaviour; most of the other categories and their properties are related to it, but the unrelated categories will be excluded from the next coding stage (selective coding) and the development of theory (theory reduction). The core category contains the main concern or problem for people in this setting. It could be a concept or a process, such as a basic social process (BSP) (Glaser, 1978).

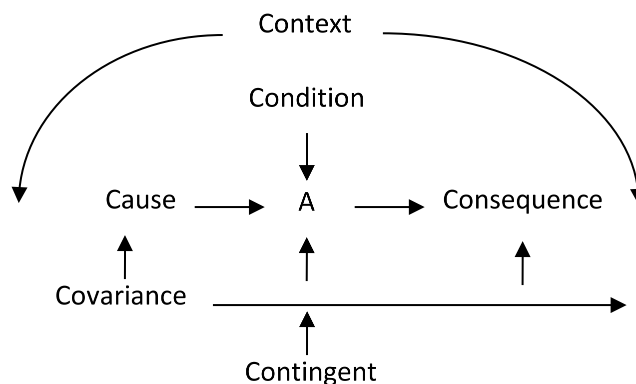
*3.3.7.1.2 Selective coding.* Selective coding is a coding stage that follows the open coding stage (Glaser, 1978, 1992, 1998). It is a delimited coding process in which only the categories and their properties related to the core category are coded. The core category found in the open coding stage becomes a guide to further data collection and theoretical sampling (Glaser, 1992). The codes generated in the selective coding stage are also mostly the

substantive codes (Glaser, 1978). Memos written during this stage of coding will become more focused. Constant comparative analysis and theoretical sensitivity are also applied in the selective coding stage. In contrast to the view of Strauss and Corbin (1998) that axial coding will be used after open coding, Glaser (1992) suggested that researchers should focus on the theoretical coding, with the codes based on the emergence and relevance of concepts that work. As suggested by Annells (1997a, 1997b), the present researcher did not imply any "right" or "more right" method, rather the analysis was done and presented with the concerns in the philosophical perspectives, paradigm of inquiry, intended product, theoretical underpinnings, procedural steps and claims of rigour (Annells, 1997a, 1997b; Charmaz, 2000, 2007, 2014)

*3.3.7.1.3 Theoretical coding.* While the core category, the categories and their properties are identified in the open and selective coding, in which the substantive codes are compared and interrelated in terms of their similarities, differences and inter-relationships through constant comparative analysis, theoretical codes conceptualise how the substantive codes relate to each other as hypotheses to be integrated into a theory (Glaser, 1978).

Theoretical coding helps to establish new connections, integrative scope, broad pictures and new perspectives. The Six Cs are an example of theoretical codes (Figure 2). Theoretical codes are always implicit in the emerging data and conceptualisation, thus one could generate a theory without explicitly using them (and thus the stage of theoretical coding), unless they help to clarify the relationships among categories (Glaser, 1978).

Figure 2
The Six-Cs as Properties (Dimensions) of A, where A is a category




***3.3.7.2 Memo writing and sorting.*** Memo writing is the theorising write-up of ideas about codes and their relationships as they strike the researcher while coding through constant comparative analysis (Glaser, 1978). Memos thus appear in all the

open, selective and theoretical coding stages. The memos, as an indispensable tool for theory development, force the researcher to progress from describing to conceptualising the data (Glaser, 1978, 1992, 1998; 2005). Memos are put back together with the data (i.e. memo sorting) in the theoretical outline, in preparation for the writing stage (Glaser, 1978, 1992). The sorting process requires the researcher to move back and forth constantly between memos and a potential outline of a theory, so that the codes, the core categories (e.g. a BSP) and the theoretical integration can be modified, reintegrated, proportionalised and verified to generate a theory with the best fit that works (Glaser, 1978). The emerging theory is parsimonious and relies on five to six categories (including the core). Categories are theoretically saturated, but the theory is not necessarily. Memo sorting saturates (or refines) the theory. More memoing and sorting is needed until saturation of the theory occurs.

## 3.4 Computer-assisted Qualitative Data Analysis Software

Despite arguments that computer-assisted qualitative data analysis software (CAQDAS) can hinder the creativity process and generate tremendous unnecessary data without theoretical relevance (Glaser, 1978; Glaser & Strauss, 1967), it has various advantages (Corbin and Strauss, 2015, pp. 204-205):

1. CAQDAS can manage different types of data, such as visual and audio forms.
2. It shortens the time of retrieval and layout work while the researchers contribute to creativity.
3. It is easier to retrace the analytic steps, making the research process more transparent to oneself and others, so that constructing an audit trail becomes easier.
4. It allows quick retrieval of data banks, making the analysis more consistent and the findings more reliable.
5. It helps the researchers to construct diagrams for analyses and presentations.
6. It increases "methodological awareness" (Seale, 2002, p. 108) because the researchers have records of analytic decisions, alerting them to premature "saturation".
7. It allows quick access to data during the writing stage.

Therefore, CAQDAS may be useful for the novice CGT researcher, as long as he always remembers that the software does not analyse the data for him, but merely assists him in the process.

Creativity and theoretical sensitivity are paramount during the process of conceptualisation. Memo writing and sorting, the essential analysis process in grounded theory, can also be made easier with this advanced technology. In this study, Microsoft Office and NVivo were used for data storage and analyses.

### 3.5 Ethical Considerations of the study

After gaining approval to implement the study from the Human Ethics Committee of The Hong Kong Polytechnic University (Appendix VIII), the researcher followed the approved procedure for conducting the interviews. The respondents were given an information sheet (Appendix IX and X) that clearly mentioned the topic and aim of the study, the interviewing and recording methods, and the participants' rights. They were invited to sign the consent form (Appendix XI and XII) to indicate their voluntary participation in the study. Throughout the study, the privacy and rights of the participants were respected and safeguarded. First, the risks from their involvement in the study were minimal. The potential benefits of contributing to a better understanding of the interactions in the process of implementing HPS were explained, and gratitude expressed for their time and

contributions. The participants were invited to take part in the interviews in places where their privacy was protected, such as a meeting room in their workplace.

During the data analysis, information identifying participants was kept confidential. All interview recordings, transcripts, and related documents were stored in a password-safeguarded computer and a locked cabinet. All information and data access was restricted strictly to the researcher and his supervisors only. Anonymity was maintained by using codes for each participant, interview, and document.

## 3.6 Conclusion

The methodology and related debates surrounding GTM and CGT were discussed in this chapter. The researcher adopted the CGT as the guiding research method and followed all the tenets of CGT in data collections and analyses with the assistance of CAQDAS. The researcher obtained relevant ethical approval and conducted the research according to the ethical considerations.

# CHAPTER 4

# REPORT OF FINDINGS

## 4.1 Introduction

This chapter described the findings during the investigation of schools in becoming, attaining and sustaining a health-promoting institution that subsequently yielded a grounded theory beyond the process of Health-Promoting Schools (HPS). As guided by the CGT, the main strategy (core category) of school actors (mainly staffs) in dealing with health promotion was to *streamline* the changes that stakeholders (including the government, school sponsoring bodies [SSBs], parents and general public) wanted to initiate and sustain. The *Theory of Streamlining Changes—The Path to Lessen Resistance to Change,* or in short the Theory of Streamlining Changes (TSC) emerged as a parsimonious middle-range theory.

In brief, the TSC emerged as a multi-level, self-organising, social complex adaptive system (SCAS) process for its wholeness of action and influence. The TSC embraced complexity and organisational paradoxes, such as the existing hierarchical school structure *yet* the practically “boundaryless” nature, and fraught of

tensions between motivation and resistance to change. The momentum to resistance was in response to changes imposed by the tensions of authority, autonomy and accountability. This latent pattern was conceptualised as the *tensional triad*—tension among authority, accountability and autonomy of the education system (schools), the teaching profession, and school members as individuals.

No participants withdrew from this study. Overall, there were 22 interviews with 42 participating individuals. Table 5 shows the details of all the participants, while Table 6 shows the compositions of the individual and focus group interviews. Overall, 8 principals, 5 vice-principals, 13 teachers, 9 school nurses (Registered Nurses), 1 social worker, 1 non-teaching member of staff (clerk), 3 parents (representatives of the Parent-Teacher Association) and 2 primary students (student health ambassadors) who participated. According to the CGT (Glaser, 1978, 1998, 2015; Glaser & Strauss, 1967), the demographics of the participants should not be preconceived to be theoretically relevant in theory generation. However, the results suggested that school principals and staff in managerial positions are important change agents in schools to implement HPS. As such, healthcare professionals, such

as school nurses, are the catalyst of change in HPS owing to their health-related professional training.

Entering through the investigation of HPS of these schools, the common themes were (a) to facilitate students' educational achievement and whole-person development, (b) to maximise school effectiveness, and (c) to develop towards sustainable organisations—all considered the "main business" of schools. The HPS played an assistive, but sometimes pivotal, role in schools excelling towards quality education, school effectiveness and upcoming changes and challenges.

Safeguarding students' health and safety—the duty of care—was of paramount importance at schools. Therefore, the HPS was found to be highly relevant to schools in the current era of educational reforms and globalisation. In other words, the current study conceptualised schools implementing HPS and sustaining as a health-promoting institution as a manifestation of adapting to complex changes both internally and externally, because schools were (and are) regarded as open, ecological and social adaptive complex systems in the 21$^{st}$ century. Therefore, the TSC emerged as a complex social process.

Table 5
Details of Participants

| No. of participant | Participant code | Pseudonyms | Position [a] | Gender | Ranked age [b] | Marital status | Education attainment | Experiences of HPS/HP in school [c] | Religion | Interviews participations | School code | School category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A1 | Ann | SN | F | 4 | Married | Bachelor | 16 | Christianity | FG1, I3 | A | Special |
| 2 | A2 | Adam | P | M | 7 | Married | Master | 16 | Christianity | FG1 | A | Special |
| 3 | A3 | Amenda | VP | F | 6 | Married | Master | 16 | Christianity | FG1 | A | Special |
| 4 | A4 | Alex | T | M | 4 | Married | Bachelor | 5 | None | FG1 | A | Special |
| 5 | A5 | Adrian | T | M | 4 | Married | Bachelor | 5 | None | FG1 | A | Special |
| 6 | B1 | Betty | SN | F | 4 | Married | Bachelor | 20 | Christianity | I1 | B | Special |
| 7 | C1 | Candy | SN | F | 4 | Married | Bachelor | 16 | Christianity | I2 | C | Special |
| 8 | D1 | Diana | SN (former) | F | 4 | Married | Master | 9 | Catholic | I4 | D | Special |
| 9 | D2 | Don | VP | M | 4 | Married | Master | 9 | Christianity | FG8 | D | Special |
| 10 | D3 | Doris | SN | F | 5 | Married | Bachelor | 9 | None | FG8 | D | Special |
| 11 | E1 | Elaine | SN (former) | F | 2 | Married | Master | 2 | Christianity | I5 | E | Special |
| 12 | F1 | Fion | SN | F | 3 | Married | Master | 2 | Christianity | I6, FG7 | F | Special |
| 13 | F2 | Fred | P (retired) | M | 7 | Married | Bachelor | 14 | Christianity | I9 | F | Special |
| 14 | F3 | Flora | T | F | 4 | Married | Bachelor | 6 | None | FG7 | F | Special |
| 15 | F4 | Frankie | VP | M | 6 | Married | Bachelor | 14 | None | FG7 | F | Special |
| 16 | F5 | Fumiko | T | F | 1 | Married | Master | n.a. | None | FG7 | F | Special |
| 17 | G1 | Gigi | SN | F | 7 | Married | Bachelor | 25 | None | I7 | G | Special |
| 18 | H1 | Helen | SN | F | 5 | Single | Nursing school | 20 | Christianity | I8 | H | Special |
| 19 | I1 | Ivana | T | F | 3 | Married | Bachelor | 9 | None | FG2, FG11 | I | Primary |
| 20 | I2 | Isaac | SW | M | 2 | Married | Bachelor | 3 | Christianity | FG2 | I | Primary |
| 21 | I3 | Irene | T | F | 3 | Married | Bachelor | 9 | None | FG2 | I | Primary |
| 22 | I4 | Iris | P (retired) | F | 7 | Married | Bachelor | 9 | None | I10 | I | Primary |
| 23 | I5 | Ion | P | M | 5 | Married | Bachelor | 9 | None | FG11 | I | Primary |
| 24 | I6 | Icy | T | F | 3 | Married | Bachelor | 9 | None | FG11 | I | Primary |
| 25 | J1 | Jane | T | F | 3 | Married | Bachelor | 11 | Christianity | FG3 | J | Primary |
| 26 | K1 | Kato | VP | M | 5 | Married | Master | 3 | Christianity | FG3, FG6 | K | Primary |
| 27 | K2 | Kala | PTA | F | 5 | Married | Secondary 5 | 0 | None | FG6 | K | Primary |
| 28 | L1 | Leo | P (retired) | M | 7 | Married | Master | 10 | None | FG3, FG4 | L | Primary |
| 29 | L2 | Lucy | T | F | 4 | Married | Bachelor | 6 | None | FG3, FG4 | L | Primary |
| 30 | M1 | May | P | F | 7 | Married | Master | 13 | None | FG5 | M | Primary |
| 31 | M2 | Mary | T | F | 3 | Married | Bachelor | 13 | Others | FG5 | M | Primary |
| 32 | M3 | Maria | T | F | 2 | Married | Bachelor | 8 | None | FG5 | M | Primary |
| 33 | M4 | Melody | PTA | F | 3 | Married | Secondary 5 | 0 | None | FG5 | M | Primary |
| 34 | M5 | Mabelle | PTA | F | 4 | Married | Secondary 5 | 0 | None | FG5 | M | Primary |
| 35 | M6 | Michael | SHA | M | 0 | Single | Primary | 0 | None | FG5 | M | Primary |
| 36 | M7 | Margaret | SHA | F | 0 | Single | Primary | 0 | None | FG5 | M | Primary |
| 37 | N1 | Nadia | P | F | 6 | Married | Master | 2 | Christianity | FG9 | N | Primary |
| 38 | N2 | Nancy | VP | F | 7 | Single | Bachelor | 2 | None | FG9 | N | Primary |
| 39 | O1 | Ole | P | M | 8 | Married | Bachelor | 4 | None | FG10 | O | Primary |
| 40 | O2 | Olivia | Clerk | F | 7 | Single | Bachelor | 4 | None | FG10 | O | Primary |
| 41 | P1 | Peggy | T | F | 5 | Married | Master | 13 | Christianity | FG12 | P | Secondary |
| 42 | P2 | Priscilla | T | F | 3 | Married | Master | 10 | Christianity | FG12 | P | Secondary |

[a] P–Principal; PTA–Parent-Teacher Association (parent representative); SHA–Student health ambassador; SN–School nurse; SW–Social worker; T–Teacher; VP–Vice principal.
[b] Ranked age: 1-8. [1] <24. [2] 25-29. [3] 30-34. [4] 35-39. [5] 40-44. [6] 45-49. [7] 50-54. [8] 55 or above.
[c] Experiences of HPS/HP in school up to the date of interview in approximate years. HPS–Health-Promoting; HP–Health promotion.

Table 6
Compositions of Individual and Focus Group Interviews with Schools

| Type of interview [a, b] | Chronolog-ical order [a] | Interviews frequency [c] | Date of interview (dd/mm/yy) | School code [d] | School category [e] | Positions of participants [f] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Principal | Vice principal | Teacher | School nurse | Social worker | Parent | Student | Clerk | Total |
| FG1 | 1 | 1 | 18 January 2013 | A | Special | ● | ● | ● ● | ● | | | | | 5 |
| I1 | 2 | 1 | 27 January 2013 | B | Special | | | | ● | | | | | 1 |
| I2 | 3 | 1 | 15 May 2013 | C | Special | | | | ● | | | | | 1 |
| I3 | 4 | 2 | 21 May 2013 | A | Special | | | | ● | | | | | 1 |
| I4 | 5 | 1 | 18 June 2013 | D | Special | | | | ● | | | | | 1 |
| I5 | 6 | 1 | 12 September 2013 | E | Special | | | | ● | | | | | 1 |
| I6 | 7 | 1 | 21September 2013 | F | Special | | | | ● | | | | | 1 |
| I7 [g] | 8 | 1 | 25 October 2013 | G | Special | | | | ● | | | | | 1 |
| I8 [g] | 9 | 1 | 28 October 2013 | H | Special | | | | ● | | | | | 1 |
| FG2 | 10 | 1 | 13 November 2013 | I | Primary | | | ● ● | | ● | | | | 3 |
| FG3 | 11 | 1 | 23 November 2013 | J, K, L | Primary | ● | ● | ● ● | | | | | | 4 |
| FG4 | 12 | 2 | 18 December 2013 | L | Primary | ● | | ● | | | | | | 2 |
| FG5 | 13 | 1 | 20 December 2013 | M | Primary | ● | | ● ● | | | ● ● | ● ● | | 7 |
| FG6 | 14 | 2 | 17 January 2014 | K | Primary | | ● | | | | ● | | | 2 |
| I9 | 15 | 2 | 19 January 2014 | F | Special | ● | | | | | | | | 1 |
| FG7 | 16 | 3 | 21 January 2014 | F | Special | | ● | ● ● | ● | | | | | 4 |
| FG8 | 17 | 2 | 23 January 2014 | D | Special | | ● | | ● | | | | | 2 |
| I10 | 18 | 2 | 25 February 2014 | I | Primary | ● | | | | | | | | 1 |
| FG9 [g, h] | 19 | 1 | 21 August 2014 | N | Primary | ● | ● | | | | | | | 2 |
| FG10 [g, h] | 20 | 1 | 22 August 2014 | O | Primary | ● | | | | | | | ● | 2 |
| FG11 | 21 | 3 | 26 August 2014 | I | Primary | ● | | ● ● | | | | | | 3 |
| FG12 | 22 | 1 | 30 January 2015 | P | Secondary | | | ● ● | | | | | | 1 |

[a] I–individual interview; FG–focus group.

[b] Type numbering is different from chronological order (e.g. FG3 represents the third focus group which is the eleventh interview among all).

[c] Interview frequency is based on individual schools (e.g. School A was interviewed for the first & second time on 18 January 2013 & 21 May 2013, respectively).

[d] A convenient label E represents the individual interview (I5) with a participant who was a Registered Nurse recruited by a local university. She was responsible for coordinating school health-related activities in various primary schools, including School F, I and O.

[e] Special schools (mild and mild-to-moderate mental disabilities only) include primary and secondary education. Others are normal schools.

[f] Each dot represents one participant.

[g] Non-HPS schools.

[h] Awardees of the HAS (HAS) of The Hong Kong Polytechnic University.

The TSC proposes to create a path that mitigates the resistance for integration of health education and health promotion at schools in the era of emerging student physical and mental health concerns. The changes proposed by the HPS, as well as other good-intended initiatives, were overshadowed by the ongoing educational reforms—aggravating, if not causing, the tensions among authority, accountability and autonomy of the schools and the teaching profession (the tensional triad)—and the emerging health issues at schools and the communities.

Investigation of HPS processes of schools in this study yielded the conceptualisation of organisational change which was beyond the HPS per se. The TSC captured interactive processes in which multi-levels *coping strategies* were adopted by the participants to sustain organisational changes, including but not limited to HPS, health education and health promotion of students, parents and staff.

The core category—*Streamlining Changes* (Section 4.2)—was built upon four main categories and their subcategories and properties (Section 4.4 to Section 4.7). In a hierarchical perspective, these categories (strategies) targeted the political, school, team and individual levels. In a complex system perspective, they interweaved in every interaction among school members. This dual perspective incubated the tensions and paradoxes of organisation which will be further discussed in Chapter 5 (Discussion). In the following sections, the core category, subcategories, properties and sub-properties of the TSC will be described.

## 4.2 The Core Category: Streamlining Changes

*Streamlining Changes* (SC) is the core category of TSC. This process facilitated primary and secondary schools to overcome the whole-school changes over the past three decades, heavily driven by educational reforms. "Streamlining" was latent across different levels of interactions in schools' daily operation, while "changes" were repeatedly mentioned in all interviews. For example, Adam (the principal of School A) said, *"There were great* changes *in special school education… Integrated Education, whole-child development, school-based management, and so on… HPS is one of these changes, although it happens many years ago."* Health-Promoting Schools, therefore, situated in the bigger picture of school function.

Betty (the nurse of School B) recalled, *"HPS, that I have participated too, was a real achievement of our school because it brings a lot of good* changes*, such as better health promotion practice. Of course, there were obstacles that not everything is smooth, especially it* changed from the top to the bottom.*"* Health-Promoting Schools involved whole-school change that obstacles existed.

Candy (the nurse of School C) commented that *"health promotion in school was a new concept to the principal and teachers that also precede the introduction of HPS. Learning is a process of* trials and errors. *There were no protocol or standard of practice then."* Health-Promoting Schools, therefore, was advanced from traditional concept of health promotion to whole-school approach through organisational learning.

Diana (the nurse of School D) admitted that change in staff responsible for HPS affect the continuity of implementation, *"in the first day of my appointment, my boss [the principal] emphasised a lot on HPS. He was proud of being awarded... During the first year, I spent a lot of time reading and familiarising with the HPS work in the school, because the previous coordinator [the former school nurse] left. She only came back and handover to me in a single day... Since then, our school did not participate in the award scheme anymore..."* In other words, sustainability of HPS was subjected to other organisational processes of schools, such as staff turnover.

Elaine (a Registered Nurse who visited School F, I and O) recalled her experience in the nursing room that *"differentiating her roles from that of the stationed school social worker was sometimes difficult, but the students tended to approach me [Elaine] because I was always available to them. In addition, everyone had to physically pass through me before reaching the social worker because our workstation arrangement."* This demonstrated that changes could be as subtle as modifications of surrounding environment, as simple as being available and true present, and that the impact of such change could be as pivotal as affecting people interactions.

Fion, Gigi and Helen (the school nurses of School F, G, and H, respectively) was not involved too much in school health promotion – partially associated with the fact that they did not participate in school level decision making. This suggested that there were multiple pathways bringing about changes in schools.

Ivana (the teacher of School I) coordinated HPS for more than 9 years, admitted that *"we [the school] did not want to participate in the HPS awarding scheme at first because we did not want to be restricted, but we learn from their model and sharing"* This suggested that there was no "one-size-fit-all" model and explanation for schools changing (or not) into an HPS, and that schools may require different assistances along the change process. For example, Leo (the principal of School L) intentionally adopted HPS as one of the *"driving engine"* of school reforms, while School M was the leader of HPS in the district that *"in order to grow, we has to assist other schools in our districts, yet it was difficult to achieve because we all have different agenda and priorities."* (May, teacher of School M) This suggested that change and growth may be cyclic and complex, rather than linear and simple.

The participating schools were influenced by the demands of multiple stakeholders from both inside and outside. External changes demanded schools to change in order to survive and to achieve renewing educational purposes, namely the educational reforms towards quality education, curriculum model and academic structure, medium of instruction, school-based management initiative (SMI). In particular, the SMI exerted long-lasting pressure on schools that many subsequent changes or initiatives were scrutinised with a sceptical lens by school members. For example, Nadia (the principal of School N) said, *"it was overwhelming to participate in the HPS awarding scheme. Therefore we prefer simple initiatives that involve less changes, as changes are endless"* Sceptically, Ole (the principal of School O) expressed that *"neither the so-*

*called healthy school policy [mandated by the EDB] nor the awarding scheme [organised by CUHK] understand the fact that genuine change requires the injection of resources, such as manpower. Yes, there are initiative, and sometime funding, but what we need is spare hands. I doubt that these initiatives are tokenistic and political."*

School P (a mainstream secondary school) integrated HPS into an elective subject under the new senior secondary curriculum (Health Management and Social Care [HMSC]). Peggy (teacher of School P) said, *"before the establishment of the subject [HMSC], we did not prioritise our resources in HP, even though we have been an HPS. For better or worse, this subject is career-oriented, that is to prepare students for university enrolment and future career planning in health-related field."* This illustrated that the seemingly government-led change may not necessarily guide HPS towards the original intention and direction.

School changes triggered paradoxes, dilemmas and conflicts between traditional and contemporary school leadership or authority, institutional and social accountability, and expected and emerging roles of the teaching profession. Health, being a concept relatively distant from the education sector was traditionally handled independently in the health sector (Chan, Deave, & Greenhalgh, 2010). However, health promotion moved to the forefront of the participating schools and their school members' mind because of the introduction of Health-Promoting Schools (HPS).

One would reasonably expect obstacles in the processes of integrating both health and education concepts and practices in an

educational setting, as did the study found. For example, all participants mentioned that there were inadequate manpower and guidance for HPS implementation. There were strategies, if not solutions, that schools adopted to overcome the difficulties encountered during the implementation of HPS. For example, Hung, Chiang, Dawson and Lee (2014) reviewed and synthesised five enablers from global qualitative literature that facilitate health promoters HPS implementation. However, how these facilitators reflected and interacted with the larger local contextual change is far from clear.

The current study, therefore, discovered the process of SC that addressed the "main concern" of Hong Kong schools—*living with the paradoxes and tensions in the education system*. Streamlining Changes was *the path of the least resistance in accommodating contextual changes to achieve the education goals of students, the management goals of schools, and the duty of care of schools*, including health and safety of students. These emerging and evolving goals require schools to adopt coping strategies in order to develop into a sustainable, and thus healthy, organisation.

The proposal of TSC as the path of the least resistance was because the coping strategies interweaved in a complex manner rather than a linear causal relationship, providing synergy or compound effects until the "tipping point" be reached (Mason, 2016). As Mason (2016) suggested, "we should be doing everything we can, from every possible angle, at every possible level and at every possible point of intervention to contribute to the production of critical mass and the precipitation of change

in a desired direction." (p. 439). In other words, while the participating schools of the study (HPS and non-HPS) had adopted some strategies in HPS, health education and health promotion, only those overcoming the complex changes persistently and comprehensively, and reaching the critical mass for change can lessen the resistance momentum.

Table 7 summarised how these categories lessen the resistance imposed by the tensional triad. The conceptualisations of TSC will be presented in the following sections and subsections.

Table 7

Core Categories, (Sub)Categories, Properties and Conceptualisations of the Theory of Streamlining Changes

| **Categories and properties** | | **Descriptions related to the Conceptualisation of the Tensional Triad** | | | | |
|---|---|---|---|---|---|---|
| *Core Category:* | *Streamlining Changes* | The path of the least resistance for changes under the tensional triad. The tensional triad may not resolve, but coping strategies exist. | | | | |
| Conceptualisations of main concern and latent pattern | Latent Pattern: | Educational reforms shape the Hong Kong context. Ecological school systems possess multiple levels within and outside. Social adaptive complex school systems possess non-linear, complex interactions among various stakeholders and levels. Schools strike to fulfil the main business of education and duty of care, yet overshadowed by the Tensional Triad. | | | | |
| | Tensional Triad: | The intertwining latent tensions in school systems which impede changes | *Tensional Triad Matrix* | Authority | Accountability | Autonomy |
| | - Authority | - Decentralisation of power from the government to schools, teachers, parents, and other stakeholders. | Authority | --- | [T2] | (T1) |
| | - Accountability | - Accountability to the profession, the schools, the government and the larger society. | Accountability | (T2) | --- | [T3] |
| | - Autonomy | - School autonomy, teacher professional autonomy and individual autonomy | Autonomy | [T1] | (T3) | --- |
| *Category One:* | *Triangulating tensions* | Coping strategy at school political level. | | Coping strategies lessen the resistance imposed by the tensional triad | | |
| Property 1a: | - Balancing | - Positional balance in the tensional triad based on the vulnerability archetypes. | | ◎ | ◎ | ◎ |
| Property 1b: | - Pacing | - Self-regulation of speed of change to increase acceptance. | | ◎ | ◎ | ◎ |
| Property 1c: | - Desensitising | - Desensitise the emotional resistance of tensional triad. | | ◎ | ◎ | ◎ |
| *Category Two:* | *Strategising / Strategic planning* | Coping strategy at (school-based) management level. | | Coping strategies lessen the resistance imposed by the tensional triad | | |
| Property 2a: | - Attuning | - According goals and values of health with those of education. | | ◎ | | |
| Property 2b: | - Branding | - Establishing school brands, uniqueness, competitiveness and recognitions. | | | ◎ | |
| Property 2c: | - Trending | - Addressing emerging needs of students, schools and expectations of society. | | | ◎ | |
| *Category Three:* | *Empowering / Empowering leadership* | Coping strategy at team level. | | Coping strategies lessen the resistance imposed by the tensional triad | | |
| Property 3a: | - Critical massing | - Professional development for individuals, establishing school health teams, networking to gain resources and partnering with HPS champions, tertiary institutions and healthcare professionals. | | ◎ | ◎ | ◎ |
| Property 3b: | - Values and attitudes aligning | - Establishing the attitudes and values of the leaders through transformative leadership. | | ◎ | ◎ | ◎ |
| Property 3c: | - Motivating | - Motivating to improve performance, relationship and self-actualisation. | | | | ◎ |
| *Category Four:* | *Cultivating* | Coping strategy of establishing health-promoting ethos and promoting the exercising of autonomy, especially individual autonomy. | | Coping strategies lessen the resistance imposed by the tensional triad | | |
| Property 4a: | - Experiential teaching and learning | - Learn and teach through experiences, trials and errors. | | | ◎ | ◎ |
| Property 4b: | - Role-modelling | - Demonstrate and behave according to professional beliefs and values. | | | ◎ | ◎ |
| Property 4c: | - Reflecting | - Formal and informal, individual and group discussions and evaluations. | | | ◎ | ◎ |

**Table 8**
**Example of coding process through constant comparative analysis of data: Change of education, school and schooling**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Change of education, school and schooling | "Health Promoting Schools (HPS) is putting the model in the school context so it is perceived to be an additional means of effective schooling, and regarded as an educational innovation rather than an initiative imposed by the health sector." (Lee, Keung, Lo, Kwong, & Armstrong, 2014, p. 225)<br><br>"No longer must we limit the perceived capability of school health educators by advocating for health 'programs'—even coordinated school health programs .... 'school health' as a vehicle for accomplishing the mission of schooling." (Hoyle, Todd Bartee, & Allensworth, p. 165) | *"The second principal led the HPS, inducing a lot of change… from policies to practices, from structure and physical environment of the schools."* (Betty, nurse of School B)<br><br>*"The educational reforms pushes us to change upside-down! The Invitational Education, The HPS, Caring School, etc… All we adopted aim to facilitate the reform."* (Fred, principal of School F)<br><br>*"On my first day …. The school's atmosphere was very poor. Morale of the staff was very low. I was very concern of the situation …. Therefore, I put the HPS into a long-term development plan for ten years! To save my school, so to speak."* (Leo, principal of School L) |

**4.2.1 The main functions and evolving concerns of schools in a changing society.** The participants of the study often started discussions about HPS by referring to their schools' histories. They were the salient contextual and temporal influence rooted historically in the education sectors—educational reforms—as reported by the participants and evidenced in schools' documents and other literature. Educational reforms seem to be distant from the worldwide HPS literature, yet highly relevant to organisational change of Hong Kong primary and secondary schools.

***4.2.2.1. The main function of schools—whole-person development in education and health literacy.*** All participants agreed that *"the main function of schools is about 'academic'"*, yet they did not exclude "health" as an aim of education. In other words, *"academic"* did not capture the whole picture of educational goals. Nor did academic outcomes define all the goals of education as mentioned by the participants and documented in schools' and Governmental policies. Education is a complex task

because its goals are "all-round", for example the EDB defines the aims of education in the 21st century:

> To enable every person to attain *all-round development* [emphasis added] in the domains of ethics, intellect, physique, social skills and aesthetics according to his/her own attributes so that he/she is capable of life-long learning, critical and exploratory thinking, innovating and adapting to change; filled with self-confidence and a team spirit; willing to put forward continuing effort for the prosperity, progress, freedom and democracy of their society, and contribute to the future well-being of the nation and the world at large. (EDB, 2014, Section 1.3).

In response to changing societal and economical contexts, the Hong Kong education system claimed to produce all-round students who could "adapt to change" in the ever-changing society, as written in the "aims of school curriculum":

> The school curriculum should provide all students with essential life-long learning experiences for whole-person development in the domains of ethics, intellect, physical development, social skills and aesthetics, *according to*

> *their individual potential* [emphasis added], so that all students can become active, responsible and contributing members of society, the nation and the world.
>
> The school curriculum should help students to learn how to learn through *cultivating positive values, attitudes, and a commitment to life-long learning* [emphasis added], and through developing generic skills to acquire and construct knowledge. These qualities are essential for *whole-person development to cope with challenges of the 21st Century* [emphasis added].
>
> A quality curriculum for the 21st Century should therefore set the directions for teaching and learning *through a coherent and flexible framework which can be adapted to changes* [emphasis added] and the different needs of students and schools. (EDB, 2014, Section 1.4).

The government also claimed to develop future generations according to students' individual potential (EDB, 2014a) as reiterated by the participants, for example:

> *"In our 3-year school development plan…there are three top priorities: healthy living and experiencing, learning and teaching, and whole-person development. We have a*

*theme for this 3-year period: 'healthy kids love to learn; experiencing life with extended potentials'. It is a big motto of us! Therefore, 'health' contributes a lot [to the theme]…" (Ole, principal of School O)*

In this regard, schools were fundamentally responsible for providing learning and growing opportunities in whatever ways that fit the notions of "developing potentials" and "all-roundedness". Health, therefore, seemed to fit everywhere in education.

In school, health was regarded either as a subject or syllabus of classroom teaching. Health literacy embraced the knowledge and skills to be taught in the education system, usually through traditional means of knowledge transfer. However, educational reforms in the past decade also encouraged new methods of knowledge transfer, such as experiential learning. Real-life experience became an essential component in learning and teaching (see Section 4.7, Cultivating).

Whole-person development embraced all-round literacy of students, including health literacy (see EDB, 2014b). The increasing importance of health literacy was evidenced by the

“Seven Learning Goals” that primary students were expected to achieve (EDB, 2016o):

1. Responsibility: recognize their roles and responsibilities as members in the family, the society, the nation; show concern for their well-being;
2. National identity: understand their national identity and be committed to contributing to the nation and society;
3. Habit of reading: develop a habit of reading independently;
4. Language skills: engage in discussion actively and confidently in English and Chinese (including Putonghua);
5. Learning skills: develop creative thinking and master independent learning skills (e.g. critical thinking, information technology, numeracy and self management);
6. Breath of knowledge: possess a breadth and foundation of knowledge in the eight Key Learning Areas; and

7. Healthy lifestyle: lead a healthy lifestyle and develop an interest in and appreciation of aesthetic and physical activities.

Similar to primary education, secondary education underwent reforms that shared most of the above learning objectives. In particular, curriculum reform in primary education was “in the medium-term phase of development” and the new senior secondary academic structure and curriculum were implemented in 2009 (EDB, 2016d, 2016e). Both reforms directed education towards whole-person development of students, including “competence in learning to learn and an open-minded attitude” (EDB, 2016l).

Despite the government positioned primary and secondary education holistically, the statement *“the main function of schools is about academic”* from the participants suggested that educational practice was constrained by latent factors (see Section 4.3, The Tensional Triad).

In reality, the tight schedule and packed curriculum resulted in the incapability of achieving all at once for many schools (Y. C. Cheng, 2009), not to speak creating opportunities based on students’

individual potentials. For example, Ole (the principal of School O) admitted that the notion of “integrating health elements into the curriculum” has not been fully executed:

> *“We have a theme for this 3-year period: ‘healthy kids love to learn; experiencing life with extended potentials’. It is a big motto of us! Therefore, ‘health’ contributes a lot [to the theme]. However, to be honest, health elements in the curriculum are insufficient… we have big names; big initiative, but we didn’t have the resources such as a team of student nurses from the PolyU. Nor we had sufficient (physical) spaces to allow mass physical exercises beside the P.E. lessons …. we are too busy to have the space (time) to conduct extra health promotion activities as simple as physical exercises…” (Ole, principal of School O)*

Albeit how schools fully integrated health elements into the curriculum, the advancement on health literacy education did not expect schools to provide “health services” (as did in the WHO HPS framework). In addition, classroom teaching often shifted the focus of education towards students’ academic achievements which

fit the immediate expectations—high attainment in examinations—of many parents whom the schools are accountable for under the School-based Management Initiative (SMI) (EDB, 2016k).

***4.2.2.2. Evolving responsibilities of schools—emerging health concerns, duty of care, and School-based Management Initiative.*** Having said that schools treated "health" as a matter of subject (health literacy), their responsibilities (and parents' and society's expectations) did not limit to just fulfilling the educational goals. The responsibility towards "health" was heightened after the SARS (severe acute respiratory syndrome) outbreak in 2003 during which many schools were closed for the sake of outbreaks control.

Schools re-opened afterwards and suffered from incompletion of syllabus and curriculum, jeopardising students' learning experience. On the other hand, owing to the increasing non-communicable diseases in children including obesity, diabetics and prolonged use Internet and electronic screen products (ESP), healthcare professionals advocated schools as a strategic setting to promote healthy lifestyle, such as weight management, hand-hygiene and Internet and ESP usage education (DH, 2014; A. Lee

et al., 2010; R. L. T. Lee, Loke, Wu, & Ho, 2010; R. L. T. Lee, Leung, Tong, Chen, & Lee, 2015). In addition, owing to tremendous academic stress in students and work stress in teachers, mental wellness drew schools' attention in the recent decade (Ho, Louie, Chow, Wong, & Ip, 2015).

After these "lessons", schools realised how "health" linked "education" in the long run. Ill-health jeopardised the effectiveness of schools fulfilling their educational functions and safety and health-related responsibilities to students and staff.

*"Ensuring schools to be both effective and healthy is important for long-term survival and improvement"* (Nadia, principal of School N). As such the participating schools were attracted to the timely HPS initiative (i.e. the HKHSA) according to the participants (e.g. Fred and Leo, the school principals of School F and L, respectively).

Another influential reason for the initiation of HPS was that participants were concerned with the existing school legal liability of "duty of care"—safety of the students, staffs and visitors—in accordance to risk management (EDB, 2017b). Therefore, school safety was implied in HPS, such as the Safe Schools/Healthy

Students Initiative promoted by the US government (Modzeleski et al., 2012).

According to the EDB (2017), schools were required to follow safety policies and practices, including school building safety and occupational safety of employees, providing a safe learning environment for students. To do this, participating schools held regular fire safety talks for students and staffs, and implemented safety measures during incidents, emergencies and school activities. All of these involved laborious school administration and management. Therefore, Fred (the principal of School F) commented that *"addressing school safety is perhaps more practical than HPS because of its* direct *benefit to schools' legal obligations … HPS helps less in this aspect, if not becoming a burden in itself"*.

Adam and Leo (the principals of School A and School L, respectively) also implemented the Invitational Education (IE) initiative to strengthen school management, learning and teaching (International Alliance for Invitational Education, 2015). Iris (the principal of School L) mentioned,

> *"The reason for schools, including ours, to participate in so many initiatives and projects is that we are under the*

> *pressure of School-based Management Initiative. We have to change. And when one school implement something, others will have to follow because stakeholders, such as parents and the SSB, will compare and compete…"*

This competition hinted at the hidden concerns of schools. The WHO HPS framework suggested schools integrate health education and health promotion into the curriculum (related to the *main functions* of schools). However, rarely did HPS-related literature describe how this was done while also adapting to the competition between schools.

The emphasis on whole-person development embraced many of the health values and attitudes—"no child left behind", equity, positive attitudes and inclusiveness—that the framework, the Ottawa Charter and the Global School Health Initiative promoted. It was the convergence that the participants found HPS relevant to the schools' holistic educational function. However, SMI made HPS becoming auxiliary to the whole bunch of concerns—educational functions, legal liability and school survival.

These concerns were overshadowed by the latent pattern of authority, accountability and autonomy tensions that will be explained in Section 4.3 (The Tensional Triad).

**4.2.2 Trends that lead schools to adopt HPS in achieving school effectiveness.** The intersection of health concerns and education concerns generated opportunities for intersectoral collaboration. The first opportunity for both sectors to know and learn from each other emerged in special schools.

Adam (the principal of School A) explained that during the periods of educational reforms, changes appeared in the manpower structure that a stationed school nurse position was mandated in special schools:

> *"In those days [before the establishment of official school nurse position], there were less problematic children … what I mean is there were less co-morbidities found, labelled or identified in our intellectual disabled students such as autism, ADHD, epilepsy, behavioural problems, Asperger's, etc. However, the situation [increase of prevalence of those health concerns] led to the fight and bargaining of us [special schools] with the government*

*for the establishment of a school nurse … now we have it! But the next question was what's next?"*

As explained by Adam, special school principals and teachers had no idea about how to work with school nurses, nor did school nurses know their roles outside health sector, as Adam (principal of School A) continued later:

*"We thought of different possible tasks for the school nurse, such as watching over [of the students] during the lunch hours, measuring body temperature [when fever was suspected], hanging around sometimes … but in general, we had no idea about it. Later, we involved the school nurse in health education; may be going inside the classrooms and providing health education. Of course, we would discuss the new roles with the school nurse because she would like to contribute more, too. I thought it was a slow discovery process … the HPS reinforced the contribution of school nurses in health education and health promotion." (Adam, principal of School A)*

Candy, who was the first badge of school nurses, recalled her experience working at School C:

> *"This field was completely new to everyone. The principal was curious about my role as a school nurse, but I answered 'I don't know either'. At first glance my clinical experience helped little. Afterwards, I realised that there are huge rooms for health promotion in this relatively healthy group of people, despite their physical needs comparing to 'normal' students."*

Owing to the physical conditions and developmental needs of special schools students, school nurses were an essential staff responsible for most of the students' health-related issues. School nurses not only changed the manpower structure of special schools, but also introduced "health" as a concept to school personnel. "Health" as a concept to special school personnel usually linked to the medical model that focussed on treating and managing physical abnormalities, while "health promotion" remained distal in terms of schooling policy, even for special schools:

> The main policy objective of special education is to enable children with special educational needs to fully

> develop their *individual potential* [emphasis added]. We encourage students with special educational needs to receive education in ordinary schools as far as possible, or in special schools when necessary. (EDB, 2016p).

Special schools were responsible for taking care of students with severe special educational needs or multiple disabilities, and at the same time implemented the same curriculum for normal schools: “On the principle of ‘One Curriculum Framework for All’, students with special educational needs, like their able counterparts follow the mainstream school curriculum and are offered essential life-long learning experiences.”(EDB, 2016c). This “normalisation” of special schools’ curriculum and purpose was criticised by some participants (Adam, Fred, Iris and Ole) for being *“one-size-fits-all”*.

Emerging health concerns of individuals jeopardised effectiveness of schools. In particular, many schools started to pay attention to the impact of “health” on the overall effectiveness of school function (with the awareness that new school function was emerging). The participating schools, regardless of being an HPS or not, adopted “health” as a school development goal or school

vision, such as “healthy living, stay healthy to learn” and “healthy students learn better”.

School members reflected on the meaning of HPS, health education and health promotion. For example, Adam and Leo (principals of School A and School L, respectively) reflected on HPS, *“does ‘healthy schools’ mean that the students of the school are healthy or the school is healthy; or both?”*. This reflection suggested that the HPS process involved not only providing health services to children, but also interventions to improve school structure and management.

Another kind of reflection, from many principals, teachers and school nurses, concerned the “right person” to lead or coordinate HPS. A few (Ann, Betty, Candy, Gigi, Helen and Kato) preferred the principals or vice principals to be the HPS coordinator; some others (Adam, Nadia, Nancy, Ole and Olivia) preferred school nurses. The remaining participants were either neutral or undecided. Despite their different preferences, all shared a common concern: *“who are better equipped with the skills and knowledge in Health promotion and health education within the school setting”* that hint at the issues around (professional) authority of the teaching and healthcare professions to enact health

intervention during the processes of change (see Section 4.3, The Tensional Triad).

These interactions suggested that the HPS process, as well as school changes, involved both top-down and bottom-up dynamics. Individual understandings of the concepts of health, HPS, health education and health promotion affected health promoters' behaviours. Health promoters and other stakeholders would "buy-in" and reach consensus easier during the processes of HPS if they shared common understandings of both education-sector and health-sector languages and concepts (International Union for Health Promotion and Education, 2010), leading to empowerment from the authority, as all participants (except the principals) always said, *"the support from the principal/school board is crucial."* These complex interactions among individuals and systems denote a latent pattern surrounding the main concern of the participants that is the continuous changes along the educational reforms.

Health-Promoting Schools (HPS) could be further illustrated by its "substitutability" as HPS was replaceable if the schools found other initiatives more applicable or feasible. Safe Schools was one of the examples directly linked with school safety,

risk management and duty of care. Stress management and healthy lifestyles for students and teachers could also constitute a *"health theme"* embraced by HPS. However, many other initiatives would serve similar purposes—to promote health, for health was a broad subject—such as Caring School, Green School, Invitational Education, permaculture, and so on. In this sense, the introduction of HPS acted as a contingency, impactful or not, to other concurrent (and may be more important) school needs, events and changes.

Notably, a school could promote various health-related topics to *without* initiating HPS, and continue to operate as usual. Therefore, HPS probably served "a higher purpose", that is the educational and managerial goals of schools as required educational reforms.

Fred, a principal of School F, gave a typical answer to why the school joined the HPS at the very beginning:

> *"Around year 2000, there was another wave of educational reform which brought tremendous changes to schools… We [the schools] had to implement the SMI [School-based Management Initiative]. The School Management Committee, or the SMC, was established. It*

> *has been over ten years for us to adopt and adapt [to the changes]. It was very stressful. Now we are on the track …. On the other hand, the birth rate was dropping while between-schools competition on attracting new students was intensified. Worst still there were whole bunch of concurrent initiatives to be implemented, e.g. the integrated education and the gifted education …. The Health-Promoting Schools Scheme might be a way out for schools like us [less competitive in terms of examination results and academic achievements].”*

Despite the HPS itself was *not* conceptualised as the core (latent) pattern *but* a covariance or a contingency, the core category of Streamlining Change emerged and consolidated the successful stories of HPS. The successful HPS schools regard health education and health promotion as “repetitive concerns” of the education system because of two reasons: (1) health curriculum had changed back and forth as a formal independent subject, or else assumed other “soft” subjects (A.Lee, 2009b; Morris & Chan, 1997a, 1997b), and (2) school were dealing with emerging health-related and social issues of students and their families. However,

health education and health promotion were usually not the main functions of the education system.

According to the participants, if health education and health promotion were *"handled properly"*, the HPS was a protective factor to students' and staff' personal health, and moderated students' academic outcomes. However, HPS could also be a mediator of "greater concerns" such as school effectiveness. In fact, the HPS were adopted by participants as a strategy intended to assist them in achieving many of the objectives in SMI, such as quality assurance and effective school management. These addressed the schools' *accountability* (EDB, 2016i).

Despite the participants appreciating the usefulness of HPS and its match with SMI, requiring all local schools to implement HPS is unrealistic because of a lack of many different types of resources to support implementation. In particular, the lack of healthcare expertise and experiences in health promotion and HPS of teachers yielded more obstacles and tensions among professional authority, accountability and autonomy. In addition, schools also adopted other initiatives from which funding, manpower and related-expertise (e.g. information technology, farming and health)

are readily accessible, such as the HAS led by nurses and health-sector scholars.

The above conceptualisation of fulfilled the changes in SMI or educational reforms—and were referred to as *"stepping stones"* according to some participants (Leo, Ivana, Iris, Kato, Peggy and Priscilla). These could explain the modifications the HPS implementation found in the current study. For examples, schools fit all other governmental and non-governmental health-related initiatives under the umbrella of HPS or HKHSA. For example,

> *"All is health. The six key components of HPS are broad enough to include healthy eating (EatSmart@school Campaign), environmental protection (Green Schools, permaculture), and whole-person development (moral, citizenship and caring schools)." (Fred, the principal of School F)*

In addition, these health-related initiatives reflected a reality that emerging concerns were related not only to health, but also education, environment, relationship, family and society. All occurred in the context of complex systems especially the ongoing educational reforms.

Whether HPS is a genuine solution to the problems encountered by schools, or just becoming another problem, different school personnel may have their own perspectives. For example, Iris, Ivana, Leo, Lucy, May, Mary, Maria, Jane, Peggy and Priscilla regarded the HPS as *"very useful"* for their schools. They expressed no or little resistance in implementing the HPS. In addition, their schools (School I, M, J and P) were awarded designation of HPS more than once and achieved the highest Gold Awards.

On the other hand, Betty, Candy, Diana, Don, Fion, Kato, Nadia, Nancy and Ole admitted that there were some to moderate resistance to change, even though their schools (School B, C, D and F) had achieved the Silver Awards, with the exception of School K. The later achieved Bronze and others were non-HPS.

To summarise, the current study conceptualised the HPS processes as manifestations of schools adapting to ongoing complex changes in the internal and external processes. In the following subsection, further conceptualisation of findings from ecological perspective will be described.

#### 4.2.3 Streamlining Changes as an ecological concept.

The implementation of HPS involves both internal and external interactions which could be described by the ecological metaphor (Rosas, 2015).

As described in Chapter 2 (literature review), the ecological perspective of health concerns individuals situated in, influenced by and interacting with people in various groups, communities and systems (Green & Kreuter, 2005). Hawe, Shiell and Riley (2009) suggested that an ecological system approach was regarded as interventions and strategies that involve multiple players at multiple levels and that the linkages, relationships, feedback loops and interactions among the players and levels are characterised.

Participants articulated and emphasised *"contextual"* influences that brought about changes. The continuous Hong Kong educational reforms propelled the greatest contextual (and thus systemic) changes according to the participants. This global educational context affected Hong Kong schools in various aspects. Y. C. Cheng (2000) described the changes spreading across the "macro-, meso- and site-, and operational levels":

> At the macro-level, the main trends include: towards re-establishing a new national vision and educational aims;

> towards restructuring an education system at different levels; and towards market-driving, privatising and diversifying education. At the meso-level, increasing parental and community involvement in education and management is a salient trend. At the site-level, the major trends are: ensuring education quality, standards and accountability; increasing decentralisation and school-based management; and enhancing teacher quality and the continuous lifelong professional development of teachers and principals. At the operational level, the main trends include using information technology in learning and teaching and applying new technologies in management, and making a paradigm shift in learning, teaching and assessment. (Y. C. Cheng, 2009, p. 75)

Bronfenbrenner's ecological concepts were evidenced when participants described "contextual" and "external" influences on the process of HPS, including the educational reforms, between-school exchanges (such as the sister schools of HPS, sharing sessions and awarding ceremonies) and third-party involvements (e.g. academic scholar sharing and non-governmental organisation

collaboration). In addition, participants described “internal”,” operational” and “managerial” activities that emphasised interactions among students, parents, teachers, principals, and other school members. Therefore, evidence from the participants and the Hong Kong educational system suggested the fit of Bronfenbrenner’s ecological concepts (EDB, 2016a).

Streamlining Changes emerged as a core strategy from the investigation of schools (micro-system) in which organisational changes *affect* individuals (top-down) and *required* individual efforts (bottom-up) to initiate and sustain. These ecological interactions yielded tensions or resistance to change which will be discussed next.

## 4.3 The Tensional Triad—Tensions among Authority, Autonomy and Accountability

As discussed above, the participating schools of the current study demonstrated ecological interactions during the process of HPS implementations and changes in schools’ management and structures. These changes were continuous in the chrono-level (waves of educational reforms across decades), progressive in the exo-level (various political and policy changes, and subtle but

salient in the macro-level (societal values and attitudes towards education and health).

There were three latent tensions underlying the ecological changes of the school among the issues of authority, autonomy and accountability, namely the *tensional triad*.

*Tensional triad* was a collective concept (paradox) which constituted three latent systemic tensions between (1) authority and autonomy [T1], (2) authority and accountability [T2] and (3) accountability and autonomy [T3] (Figure 3).

Figure 3

The Tensional Triad (2-D illustration)

As illustrated in Figure 3, tensions manifested across levels and stakeholders, such as tensions between schools (the authority) and staff (the autonomous teaching professional) [T1], schools and parents (stakeholders whom the schools are accountable for) [T2] and parents and staff [T3].

**4.3.1. The conceptualisation of authority.** Authority, or legitimated power, in the tensional triad imposed political and decision-making power from education policies on school, which is in turn disseminated top-down to the whole system through the school manager (principal) on the staff, and finally resulting in a general sense of decentralisation of decision-making power in the current education system as promoted by the SMI (Ko, Cheng, & Lee, 2016). This decentralisation of power, however, became both the cause and effect of *the resistance to change* because the participants might not perceive a sufficient sense of empowerment in term of authority, due to the positional inferiority and mismatch of professional authority and expertise.

In addition, the tradition hierarchical structure still existed in schools, which continue to maintain a sense of supervisor-subordinate relationship among school members. This

*decentralisation-disempowerment* was, paradoxically, from the educational reforms towards “participatory decision-making mechanism”, “school flexibility and autonomy” enhancement, and “transparency and accountability” in the SMI (EDB, 2016k). Therefore, *“gaining the principal’s support”, “approval from the SMC”, “participations of the teachers”,* and *“support from the parents”* were commonly mentioned by the participants. These could be understood as external authority seeking behaviours that individuals tried to regain a sense of authenticity which were suppressed by education system and even their professional identify (see Akoury, 2013; Burks & Robbins, 2011). External authority seeking behaviours were the manifestation of both decentralisation of power in decision-making and disempowerment of the authentic and autonomous teaching professionals (deprofessionalism). In this regard, tension of authority existed within autonomy and accountability (Figure 3).

The implementation of HPS challenged the authoritative sense of school and teaching profession, explicitly and implicitly. Participants emphasised that the main function of school was always “academic”, suggesting that “education” rather than “health” was the legitimate power of schools (M.-Y. Wong, 2016). For

example, principals and vice principals (Adam, Amenda, Leo, Kato, Fred, Iris, Nadia and Nancy) expressed that one of the impediments in introducing HPS to school members was the lack of confidence of finding a "suitable" teacher to coordinate and motivating others to participate. This lack of confidence was grounded by the remoteness of authority that school functions had in relation to student academic achievements in the traditional sense.

Despite recent education reforms in school management and organisation, learning and teaching, student support and school ethos and student performance (i.e. the performance indicators) (EDB, 2016i), none of them directly targeted improving student health outcomes. Participants regarded this as *"understandable"* (see EDB, 2010). Rather, health outcomes served as the mediators of schools to achieve the performance indicators of school effectiveness in the SMI (see St Leger & Nutbeam, 2000). These reforms, therefore, have reinforced the educational-driven nature of the HPS process; and that the covariate and contingent HPS suggested other ongoing initiatives also served for the SMI process.

On the other hand, participants claimed that the *"suitable person"* had to be committed and interested in coordinating the HPS, as well as equipped with health promotion and health

education knowledge and skills. Meeting all of these attributes was not easy. For example, participants argued that specialisation in health education teaching was lacked in the teaching professionals, despite the trainings (short courses, professional diploma and master in health promotion) offered along with the HKSNA (A. Lee, 1999, 2009b).

Teachers (such as Ivana, Irene, Lucy, Jane, Flora and Fumiko) expressed that despite one or two HPS coordinators who completed the HPS-related trainings, the overall professionalism of other teaching colleagues remained distal to claiming themselves the health education and health promotion professionals. In this regard, the overall degree of professional legitimacy of teachers, and in turn the whole-school, in performing health education and health promotion remained low. This was especially so when governmental intention in leading or mandating the WHO HPS framework in schools was lacking.

On the other hand, in special schools, nurse participants argued that coordinating HPS required not only health promotion and health education knowledge and skills, but also *organisational management* expertise. For example, Ann (the school nurse of School A) said, *"I thought a vice-principal or senior teacher*

*should coordinate the HPS, because it involves many administrative works"*. Betty described her school's "rises and falls" in HPS:

> *"The second principal, who had retired, was the one pushing the HPS and making us work... She was very passionate on HP in children... After her retirement, the third principal succeeded the next round that the school won the Gold medal. He also inherited the HE and HP ethos and spirit in school, however he resigned deal to personal health issue. Afterwards, the fourth principal, who also did not work long here, had changed the school direction. The current (fifth) principal basically does not emphasis on the HPS anymore. Although I am the one witnessing the five eras which include the period under the first principal of the school and am responsible for the HPS, and HP in school, I would say the overall school changes were too complex to do it on my own... And the school principals played a critical role in leadership and management of the school."* (Betty, the school nurse of School B)

Both sides of the story—teachers' and nurses'—proved that not only the multidisciplinary team was essential in organisational changes, but also the latent tension in the legitimate power (authority) of who led HPS.

**4.3.2. The conceptualisation of autonomy.** Autonomy is an overarching concept which concerns the schools (school autonomy), their functioning members (staffs) (mostly professional autonomy), as well as the service consumers (students and parents) (individual autonomy). *School autonomy* was one granted by the EDB in decision-making of operations (such as hiring staff). Self-development and self-evaluation of performance of schools, and intra- and extra-curriculum activities provides opportunities for students to develop their full potential and achieve whole-person development (EDB, 2016k). In other words, school autonomy was a concept that schools were accountable to fulfil. Therefore, an autonomous school was also accountable.

The more autonomy a school equipped (granted by the government), the more accountability a school had to fulfil. However, the increase in school accountability did not directly

equipped schools with autonomy. Rather, school autonomy had to be gained by school members under the SMI.

Governmentally defined school autonomy required teachers to exercise education professional conduct (code of practice), including autonomy and professionalism (Council on Professional Conduct in Education, 1995, 2008), that is professional autonomy of teachers. *Professional autonomy* (also teacher autonomy) refers to "the capacity of the individual teacher, the exercise of that capacity or the affordances of discursive, institutional and systemic structures within which the teacher is located" (E. Hargreaves et al., 2013, p. 23). That is, teachers were the key players contributing to school autonomy.

*Individual autonomy* concerns independence of judgement in teaching for teacher; and in choice of education for parents and students. Everyone possessed individual autonomy, but parents and students were increasingly exercising more individual autonomy in choice of education under the cultural trend of consumerism or "market ideology" (A.Hargreaves, 2000).

The tension of autonomy was caused by the phenomenon that among these three basic types of autonomy, professional autonomy, including teachers' individual autonomy, was probably

the most suppressed. This was because of the outcome-oriented, performance-based accountability required in the SMI by the government, as the ultimate authority and funder (Ko et al., 2016; Quong, 2016).

In the HPS processes, the concept of autonomy was not limited to educational codes of practice and requirements of the SMI, but also extended to areas related to the health sector and healthcare professionals. Healthcare professionals were appointed as specialist staff in schools, mostly in special schools and international schools in Hong Kong. However, the mechanism of how health education and health promotion activities, as well as the issues related to the authority, autonomy and accountability of healthcare professionals have not been clearly delineated in the education sector.

According to the participants, particularly teachers and school nurses, professional autonomy was a general concept applied differently between education and healthcare professions, and between hospital and school settings. This exercising of professional autonomy raised the question of who grants the authority to teachers (and school nurses) to perform new (and renewed) roles of health education and health promotion in schools

with two immediate possibilities: the school principal and the EDB, versus the health sector (such as the DH). Interestingly, the health sector was less interested in establishing a stationing school nurse in normal public schools (Information Services Department, 2008).

Health-Promoting Schools (HPS) challenged the definitions and applications of school and professional autonomy that involved the interactions among authority, autonomy and accountability, causing tensions among all stakeholders. For example, if a teacher volunteered or was assigned to become the HPS coordinator of the school, the question arose, was he/she a healthcare professional? Most of the participants (teachers, principals and school nurses) hesitated to claim a teacher was a healthcare professional, but more appropriately a *health promoter.* This was interpreted as avoiding any legal liability that could be attributed to a healthcare professional identity. Furthermore, this questioning of professional identity presented in teachers' self-reflections demonstrated their "*conflicting role"* as well: *"I am not convincing to my students that I am a tough teacher who concern their discipline and behaviours during classes while I have to act caring and tender who talks about health"* (Ivana, teacher of School I).

This phenomenon of questioning one's identity was coherent with the low "health representation" of teachers in the literature (Miglioretti, Velasco, Celata, & Vecchio, 2012). On the other hand, how teachers exercised teacher professional autonomy; and integrating or even acquiring the necessary health representation or professional autonomy in health education, health promotion and HPS was rarely, if not never, discussed in the literature. Most of the participants assumed that teacher professional autonomy was sufficient enough to conduct health education for students inside classrooms as long as they had been professionally trained in health education/

The lack of confidence to take on the role in health promotion appeared to involve school infection controls, general hygiene maintenance and school environmental safety. In this regard, some principal participants (such as Kato and Ole) preferred themselves or the vice principals to take up the leadership role (such as the HPS coordinator) because in their positions, they were more confident, authoritative and autonomous in, at least, the managerial, administrative and leadership tasks. In this regard, the schools (principals and teachers) had authoritative and autonomous roles within the accountability framework in the education sector.

**4.3.3. The conceptualisation of accountability.** The concept of accountability was monitored and reinforced in the education sector since the educational reform in the 1990s. *School accountability* is a collective, both internal and external, and often hierarchical (top-down and bottom-up) concept with various meanings as evidenced by governmental policies and guidelines, for example:

1. The Incorporated Management Committees (IMC) or the School Management Committees (SMC) is established under the Laws of Hong Kong (EDB, 2016n). The composition of the IMC/SMC includes SSB manager(s), teacher manager(s), the principal (ex-officio member), alumni manager(s), parent manager(s), independent manager(s) and alternate manager(s).
2. Schools (under aided/direct subsidy scheme [DDS]) operating and receiving substantive infrastructural support from the government after signing the SMC/IMC Service Agreement (SA) with the EDB (EDB) (EDB, 2016n);

3. School sponsoring bodies' (SSB) responsibilities in school management and fund raising from government and non-government sources (EDB, 2016h);
4. SMC/IMC's responsibilities in school management and operations under the Code of Aid for Aided Schools and the responsibilities to formulate clear policies, accountability mechanism and monitoring (self-evaluation) procedures regarding schools' operations (EDB, 2016b, 2016h).
5. School development strategies should meet the requirement of government education policies. (Education and Manpower Bureau, 2006a, 2006b).
6. School managers' roles and functions in policy-making, planning and prioritising school development projects, and managing school resources (personnel and finance) in line with the government education policies, goals and curriculum, the mission and vision set by the SSB, school's development direction, giving staff sufficient flexibility and authority to implement specific duties and plans involved in the

day-to-day operation of the school, as well as leading regular internal and self-evaluations and external reviews of all the budgets, development plans and performances (Education and Manpower Bureau, 2006a, 2006b).

These roles and functions of the SSB, IMC/SMC and principals contributing to the accountability of school as a whole were not meant to be exhaustive. The concept of accountability intertwined the concepts of autonomy and authority that exist simultaneously in triad.

Schools were more autonomous in becoming self-evaluative, self-managing and self-learning (EDB, 2010), but more accountable to all stakeholders. For example, the SSBs were accountable to the government; the principals were accountable to the SSBs; the staffs were accountable to both the supervisors and the principals; and the schools, as a whole, were accountable to the SSBs, parents and the society.

Parents were equipped with bargaining power and individual autonomy under the culture of consumerism. However, they were assumed less accountability at the organisational (school)

level. Similarly, students were mainly accountable for their learning to themselves and the parents, but not to the schools.

Among these levels of accountability, teacher accountability is under the greatest challenge. According to Halstead (cited in Sachs, 2016, p. 416), there were two forms of teacher accountability: *contractual accountability* and *responsive accountability.* Teacher professional practices were contractually accountable to schools based on performance indicators and students academic achievements, leading to stresses of fulfilling the outcome-oriented competitive cultures. In addition, teachers were responsively accountable to themselves and students judged by sound professional decision-making towards the best interest of students which concerns more the process rather than outcomes. Both forms of accountability are important in shaping the sense of teacher professionalism (Sachs, 2016), but the heightened tensions of authority and accountability suppress the teacher autonomy in relation to responsive accountability, leading to constraining, if not shrinking, professionalism of teacher.

Health-Promoting Schools promoted the decentralisation of authority and increase of autonomy, but the impact of change in accountability of schools and school members were not explicit for

education sector. HPS assumed schools were accountable to their own stakeholders within local context. This assumption, however, caused hesitation of schools members to participate because of the overwhelming experiences of the educational reforms that heavily emphasised on accountability. Therefore, participants raised practical concerns: to what degree a school is accountable for health-related issues of students. Furthermore, the expanded *contractual* and *responsive* accountabilities of teachers in relation to health education and health promotion were arguable in the process of HPS. Therefore, the schools assimilated HPS into one that fit their existing school structure and accountability framework. In one of the participants' words, *"everything is integrated in the school structure"* (Ivana, the teacher of School I).

To summarise, the tensions of authority, autonomy and accountability within school systems were aggravated by the educational reforms that many schools struggled in finding a balance to achieve the renewed educational goals and school effectiveness. Many of the consequences of the ineffective educational reforms over the past three decades were discussed by local and international scholars within education sector (e.g. Y. C. Cheng, 2009; Hallinger, 2010). The latent tensional triad was a

critical hindrance to school in implementing health sector initiatives, such as HPS. In particular, health education and health promotion challenged the “health representation” of teachers, which in turn disclosed the tensions of authority (who govern), autonomy (who is the professional expert qualified to perform health-related roles and functions), and accountability (who accounts to whom for what) within the education system.

**4.3.4. Tension between authority and autonomy [T1].**

The introduction of HPS to local schools disclosed the tensions of authority, autonomy and accountability within the educational setting. One of the interactions is the heightened tensions between authority and autonomy [T1] (Figure 3). The extract of EDB’s comment on the ongoing curriculum reforms implied this tension:

> Developing a healthy lifestyle in order to enhance students’ growth—schools in general are supportive of the ‘healthy campus’ policy. They [the schools] *can further strengthen the related learning experiences* [emphasis added] to help students develop a healthy and balanced lifestyle, including adopting a regular working and resting habit, exercising regularly, having a balanced

> diet, learning self-care, maintaining personal hygiene and good mental health… Participating in different courses and activities in spare time can develop students' potential. However*, an excess of such courses and activities will reduce students' time for rest and play*, *and hinder them from developing their personal interests and potential* [emphasis added]. In addition, *if students grow accustomed to passively following someone else's arrangement*, *their personality and development may also be hampered* [emphasis added]. Therefore, schools should ensure that students have sufficient time to play, rest and develop their interests. (EDB, 2014, Section 1.5.2 Areas for further enhancement or improvement)

Schools were required to be flexible in designing curriculum and arranging appropriate time for play and rest. However, the teacher professional autonomy was compromised. Teachers could not create a balanced ethos of learning, playing and living for students not only because of the tremendous workload, but also academic stress of students imposed by expectation of parents and societal cultures. Another evidence pinpointing the

authority-autonomy tension was found in the FAQ (frequently asked question) by the EDB (2016d):

> Q: Curriculum reforms emphasise school-based curriculum development. Is the school allowed to decide on its own what students learn, how they learn; what teachers teach and how they teach?
>
> A: *School-based Curriculum is not an arbitrary, "do as one wishes" mode of curriculum development.* [emphasis in origin]
>
> Central curriculum provides clear directions and principles for curriculum development and offers a flexible and open-ended curriculum framework for schools. It ensures all students enjoy equal learning opportunities (learning hours, core content). *Basing on the characteristics of the teachers, students, sponsoring bodies and local communities, schools may structure curriculum, tailor learning material, design teaching and*

> *learning and assessment strategies in developing school-based curriculum.*" [emphasis added]

International scholars criticised on autonomy sabotage by the central curriculum-driven system in which (school and teacher) autonomy presented only in the choice of teaching methods at the *classroom level*, but not in setting teaching goals, standards and contents at the *administrative level* (A. Hargreaves, 2003; Steh & Pozarnik, 2005) . In addition, the SMI was criticised for only allowing school autonomy at the administrative level of control (authority) where the principals were dominant. At the professional control level (teacher autonomy), teachers/professional autonomy and creativity were suppressed (V. M. Y. Cheng, 2010; Kwan & Li, 2015). Therefore, school autonomy depended on how school principals disseminated autonomy to staff.

The authority-autonomy tension [T1] manifests not only between *governmental* authority and *school* autonomy [T1a], but also between *principal* authority and *professional/teacher* autonomy [T1b] (Figure 4).

The tension [T1] is evidenced in the process of HPS. All teacher participants expressed that *"principal's support in HPS is*

*important"*, implying that their authority and autonomy required principals' approvals. Principals (such as Adam, May and Iris) allowing the greatest autonomy of staff in coordinating HPS tended to control as little as possible, but at the same time aware the existence of the tension [T1b]. Adam (the principal of School A) emphasised that the success of HPS required the consideration of *"balances between power given to and accountability of the delegates"*.

While Adam was able to balance the tension [T1b], teachers might not feel authorised or empowered. For example, a participant (strict anonymity as requested) reported a first-person experience of an HPS-related work relationship crisis in the school: A teacher was assigned by the principal for leading the implementation of HPS. However, the teacher disagreed with the school development direction towards HPS. Finally the teacher *"resigned with anger and disappointment"* (according to the anonymous participant). Individual conflicts implied the tension between one's identity as both a professional and an individual that *professional authority* and *individual authenticity* also arise from self-determination and autonomous decision-making (Ryan & Deci, 2004, 2006) [T1c] (Figure 4).

To summarise, the conceptualisation of authority-autonomy tension [T1] consisted of interrelated tensions (e.g. T1a, T1b and T1c) in schools. Various coping strategies were adopted by school members to *streamline* the resistance to changes (to be discussed in later sections of categories and subcategories).

**4.3.5. Tension between authority and accountability [T2].** The second tension between authority and accountability [T2] was not new to the education sector (A. Hargreaves, 2003; Waters, 2012), but was, again, aggravated by educational reforms.

Tensions appeared between *governmental* authority and *school* accountability (schools accountable to the government) [T2a] (Figure 4). In the past, this tension was between the schools and the SBBs that usually consisted of religious bodies (such as Catholic, Anglican, Methodist and other church organisations) and voluntary organisations (such as merchant associations). Schools' developmental direction, visions and missions, and curriculum were solely decided by the SSBs. In other words, the schools had nearly full authority and autonomy and much less accountability to the government comparing to school management committees (SMC) nowadays (Ko et al., 2016; Kwan & Li, 2015). In SMC,

SSB representatives could only contribute to not more than 60 percent of SMC constitution, hence school management was subjected to other stakeholders' decisions and the final approval of the government (EDB, 2016k).

This change of school management intended to decentralise school authority from the SSBs to other stakeholders and improve education quality (EDB, 2016k). However, Ko et al. (2016) and Kwan and Li (2015) argued that due to the government-driven curriculum, school authority (and autonomy) in designing educational curriculum was practically absent. Schools were required to prove themselves meeting governmental standards of school performance (school performance indicators) and school effectiveness (Schools Value-added Information System) through school self-evaluation and external school review (Kwan & Li, 2015). In other words, school accountability is driven by managerial objectives, academic results of students, and hence the expectation of the parents and the society. The consequences were teacher professional authority and autonomy being suppressed. Worse still, impediments occurred in organisational changes (such as the HPS) when teachers were the major implementers.

While school principals were the delegates to exercise school authority, teachers might not be benefitted from the decentralisation of authority because they lack the curriculum-decision power. In addition, teachers were subjected to increased accountability to parents and society. In particular, majority of the parents and societal norms prioritised their children's examination results and academic achievements. Despite the government promoted "whole-person development" and "developing individual potential to the full", some long-term education aims (e.g. healthy lifestyle and citizenship) were less emphasised by parents and other stakeholders owing to the changing societal cultures and climates (e.g. Poon & Wong, 2007).

The traditional belief and the highly respectful culture that schools and teachers knew the best for the children were challenged by the educational reforms. Teachers struggled to establish and protect their professionalism and professionalisation (Horn, 2016; Ng, 2013; Ng & Yuen, 2015), including the suppressed teacher autonomy (Quong, 2016). This phenomenon constituted to the tension between governmental-school authority and teacher accountability (teachers accountable to schools/principals and the government) [T2b]; and the tension

between stakeholders authority and teacher accountability (teachers accountable to society and other stakeholders, particularly parents) [T2c] (Figure 4).

The authority-accountability tension [T2] existed in and formed the status quo of the school systems similar to the authority-autonomy tension [T1]. Health-Promoting Schools disclosed (or even further challenged) the tensions, triggering resistance to changes. For example, the ambiguity of "health representation" of teachers led to the hesitation of taking up the responsibility of HPS coordinator, or even workplace conflicts as illustrated previously. These tensions, therefore, explained the worry of some principals (Adam, Iris and Ole) and teachers (Ivana and Mary) on the lack of career path for teachers coordinating HPS when HPS was "unofficial" (non-governmental-led). Professional development was a mean to professionalism that an increase of teacher authority and autonomy was a motivator of participation, but unfortunately missing in the HPS process in Hong Kong.

To summarise, the conceptualisation of authority-accountability tension [T2] consisted of the interplay of different school members and stakeholders (e,g. T2a, T2b and T2c) across different levels of the school systems (Figure 4). Teachers

struggled to protect their professionalism that resulted in resistance to change.

**4.3.6 Tension between accountability and autonomy [T3].** The third tension between accountability and autonomy [T3] is an extension of the previous two tensions [T1 and T2] because accountability, autonomy and authority were interrelated concepts (Ko et al., 2016). At the centre of these three tensions, teachers were insufficiently empowered in terms of professional authority and autonomy (i.e. professionalism) (Quong, 2016) in order to initiate and sustain organisational changes. For example, a teacher proposing a health project had to gain support from the immediate authority (the principal or the vice principal). The final approval of the proposed project depended on the decision of the principal and the SSB. This "micro-management" involving political considerations and procedures (Hyslop-margison & Sears, 2010), undermining the teacher's sense of autonomy and morale. Another example was that the principal initiate changes sought staff's support and participations, but the staff disagreed with the decision of the principal and the SSB as illustrated from the abovementioned workplace relationship crisis.

Disagreements might not always yield conflicts, but prevent schools from implementing and sustaining organisational changes. For example, Candy (the school nurse of School C) described her observations that colleagues avoided new roles and responsibilities and delayed changes proposed by the new principal. Candy failed to motivate the colleagues to continue HPS because she was not authorised during the term of former principal, despite the fact that she was highly autonomous and accountable as a Registered Nurse. This complex interplay of the tensions between accountability and autonomy implied the contribution of authority.

The manifestations of the accountability-autonomy tension [T3] were the tensions between the intertwined dynamics of autonomy and accountability among different school members and stakeholders (Figure 4). The SMI and government-driven curriculum shaped a governmental controlled and administrative controlled school systems, rather than a professional controlled one (Ko et al., 2016; Kwan & Li, 2015) [T3a]. Therefore, teachers fulfilled more administrative mandates that occupied most of their time in fulfilling their contractual accountability (outcome-oriented), rather than their responsive accountability (process-oriented). Changes were often unwelcomed by many teachers, and

that the changes were perceived as burdens. The educational reforms led to the increased individual autonomy of parents in participation of decision-making processes in school operations. However, teacher professional autonomy has encountered a constriction [T3c]. For example, the regulatory nature the Council of Professional Development of Teachers and Principals (COTAP) and the Code of Conduct prepared by the Council on Professional Conduct in Education (CPC) did not obtain governmental emphasis despite years of efforts in advocating teacher professionalism [T3b], further devaluating the professional-driven decision making process (responsive accountability) of the teachers (Council on Professional Conduct in Education, 2008; Kwan & Li, 2015; Quong, 2016; Sachs, 2016).

These tensions hindered the motivation of adopting changes (such as that required by HPS), because the changes implied whole-school adaptation and required teachers to commit and participate, but teachers lacked the essential sense of professionalism. This lack heightened the existing tensions between teacher professionalism and SMI and performance-driven school systems. Schools hesitated to participate in the HPS, unless

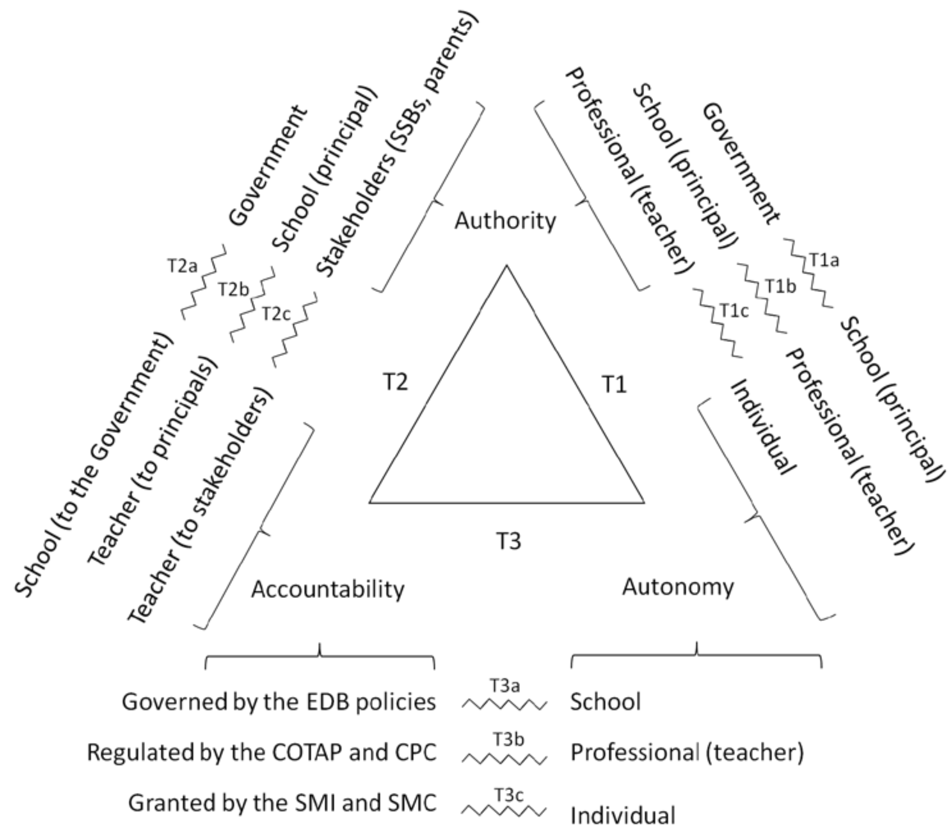
they could *streamline* to form stronger coherence among the HPS and the existing educational systems.

To summarise, these tensions among authority of education policy, autonomy of the teaching profession and accountability granted in parent groups and other stakeholders commonly presented in triad in local schools (Figure 3 and Figure 4). In the current study, many schools struggled with the overwhelming reforms and concurrent initiatives. Teachers were exhausted by increasing workloads. Managerial staff was anxious about performance and accountability. It was hypothesised that the tensional triad impeded the process of change towards effective education.

In this regard, school members developed three interactive coping strategies to maximise the chance of implementing and sustaining changes with the existing tensional triad—*Balancing, Desensitising* and *Pacing* which would be discussed in the following subsections.

Figure 4

Sub-tensions of the tensional triad (2-D illustration)




## 4.4 Subcategory One: Triangulating Tensions

*Triangulating tensions* (also *Tensional triangulation*) was a conceptual strategy of *Streamlining Changes.* It was an umbrella concept composed of three (3) coping strategies (properties): *balancing, pacing* and *desensitising*. It was the overarching coping

strategy because it existed in the highest level of the ecological school systems which could be political.

**4.4.1 Balancing—balancing the tensional triad based on the vulnerability archetypes.** *Balancing* (or *situational balancing*) was a property of *Triangulating tension.* It referred to the (1) *positional balance* within the individual coordinators, leaders or advocates who initiated changes in schools such as the HPS; and (2) *political balance* of the schools regarded as a whole entity. The health promoters learned and were conscious of the tensional triad which was a political issue without simple solution as suggested by their experiences and other educational literature (e.g. Beijaard, Meijer, Morine-Dershimer, & Tillema, 2005; Hyslop-margison & Sears, 2010). For example, Ivana (teacher of School I) was aware of the existing school structure, common practice and culture that she integrated the element of HPS into them: *"…we scrutinise the six key factors [of the WHO HPS framework] with our reports, documents and policies to re-establish a structured framework conducive to HPS practice, on one hand, and consistent with the daily operation of schools, on the other."* (Ivana, teacher of School I)

**Table 9**
**Example of coding process through constant comparative analysis of data: Balancing**

| Categories/ properties/ concepts/ codes | Constant comparative analysis of all "slices of data" | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Balancing | Political balancing involved the negotiation among different vulnerable archetypes – authority vulnerable, autonomy vulnerable and accountability vulnerable – so that all stakeholders' political utility could be balanced (Weiler, 1983, 1989, 1990)<br><br>Vulnerable archetypes could be understood as the "dominance differences" (Morberg et al., 2012, p. 356) which are the product of interactions among the individuals and their capital and habitus in the field.(Morberg, Dellve, Karlsson, & Lagerström, 2006)(Morberg, Dellve, Karlsson, & Lagerström, 2006)(Morberg et al., 2006)(Morberg, Dellve, Karlsson, & Lagerström, 2006)(Morberg, Dellve, Karlsson, & Lagerström, 2006)(Morberg, Dellve, Karlsson, & Lagerström, 2006)(Morberg, Dellve, Karlsson, & Lagerström, 2006)(Morberg, Dellve, Karlsson, & Lagerström, 2006)(Morberg, Dellve, | *"Teachers are overloaded with their jobs. They hesitated to coordinate the HPS. Finally, together with other considerations (e.g. the personal interests of the staff), I have invited the school nurse, i.e. Ann, to coordinate the HPS. She is so committed and fervent…"*. (Adam, the principal of School A)<br><br>*"The principal invited me to help in the school health promotion. I appreciated that because I support children health promotion very much. However, because I am not a teacher, I could not initiate much unless the principal advocated for actions. On the other hand, since our schools are not really participating in the HPS, I feel less heavy in terms of responsibility…"* (Olivia, the clerk of School O) |

Karlsson, & Lagerström,
2006)(Morberg et al.,
2006)(Morberg et al.,
2006)(Morberg et al.,
2006)

*Positional balance* referred to the positional neutrality among being an authorised and authoritative HPS coordinator who initiated and led changes, an autonomous professional coordinating and implementing the HPS; and an accountable staff to the principal, parents and society. There were three basic positions interacting in the process of leading and coordinating HPS: principal, teaching profession and non-teaching staff. Building upon the concept of tensional triad, they represented the three vulnerability archetypes, namely (i) authority vulnerable, (ii) autonomy vulnerable and (iii) accountability vulnerable. These were illustrated by the cases of School A, School O and School I.

Adam, the principal of School A, authorised the school nurses (Ann) and allowed the greatest decision-making autonomy on the HPS. Adam recalled:

> *"Teachers are overloaded with their jobs. They hesitated to coordinate the HPS. Finally, together with other considerations (e.g. the personal interests of the staff), I have invited the school nurse, i.e. Ann, to coordinate the HPS. She is so committed and fervent..."*. (Adam, the principal of School A)

On the other hand, the school nurse (Ann) expressed that she was so stressful due to the heavy accountability in coordinating the HPS during the time of *"professional lonely"* and *"one-man band"*, she said:

> *"I had worked over time after schools to conduct the weight-management courses; three days per week… I had invited some teachers to help, but I do not do so in recent years because they were occupied with increasing workload…. As I recalled, I spent three months in the last summer when the students were having the summer holidays. I worked in the office to compile the evidence, i.e. the many documents, for accreditation. It could have been done easier if they teachers could complete their parts, but in practice I did it myself; the teachers are just too busy to gather the necessary documents, therefore I prepared a checklist for their easy reference… Nor do they had the time to enter the online system and complete all the accreditation checklist. As an HPS coordinator, I am totally accountable"* (Ann, the school nurse of School A)

The above case of School A illustrated the authority vulnerable archetype because the actor (here the school nurse) lacked legitimate power, despite sufficient autonomy (and assuming accountable to the principal on the HPS).

In the case of School O, Ole (the principal) proposed the HPS initiative to staff (including teachers and the vice principal) in a committee meeting, knowing that only if he obtained their commitment to coordinate could the HPS be sustainable, but finding a teacher to volunteer in extra administrative tasks would be difficult because he knew that there are tons of work for the teachers. As he expected, there were no teacher volunteer to be the HPS coordinator. Ole could had chosen to assign a teacher to coordinate the HPS by his positional authority regardless the teacher's hesitation, but he did not because he preserved the rapport with the teachers. Therefore, he decided to coordinate the HPS himself. During initiation in the following year, Ole noticed that it was too heavy to coordinate the HPS by himself solely, hence he invited Olivia (the clerk) to help in many of the administrative mandates. Olivia, however, expressed a lack of professional autonomy and authority owing to her position:

> *"The principal invited me to help in the school health promotion. I appreciated that because I support children health promotion very much. However, because I am not a teacher, I could not initiate much unless the principal advocated for actions. On the other hand, since our schools are not really participating in the HPS, I feel less heavy in terms of responsibility..."* (Olivia, the clerk of School O)

The above case of School O illustrated the autonomy vulnerable archetype and authority vulnerable archetype. The clerk lacked the professional knowledge, and hence the professional authority and autonomy, despite she were accountable to the principal who authorised her. The principal avoided overriding the teachers' autonomy by withholding his positional power, hence was regarded as the authority vulnerable archetype.

Iris, the principal of School I, intended to invite a senior teacher to coordinate the HPS, but the teacher refused with the reason that "health is not his strength area and interest". The teacher is not motivated to leading the HPS. As Iris and Ivana recalled:

*"After his declination of my invitation (a former teacher), I waited for another timing … until Ivana started to work in our school. She was a junior teacher at that time and had less administrative tasks comparing to the others... She accepted this challenge (to lead and coordinate the HPS) with hesitation initially. I then promised her that I will always on her back. 'I will always support you; be your shield to opposition and be your advocator in the SSB'. Since then we work very well with each other... and because other colleagues know that the principal supports her, the HPS has become one of the most successful development of the school."* (Iris, the principal of School I)

*"You know, as a junior teacher at that time, I had little positional power to lead a big project such as the HPS. Nor I was confident enough to become the leader of the HPS... The HPS accreditation process requires you to gather tons of evidences from different parties (teachers); to mobilise other colleagues is labour intensive and sometime tactical (political). The tactic is, well, to gain principal's support... I want it to be successful because,*

> *you know, I was young and needed to develop my career. Of course, I totally buy the idea of school health promotion and want my students to be healthy."* (Ivana, the teacher of School I)

The above case of School I illustrated the accountability vulnerable archetype because the actor, although equipped authority (granted by the principal) and autonomy (for her teaching profession), she was accountable to lead the HPS to success.

These cases indicated that the initiation of change required *the balance among the vulnerability archetypes* (that these archetypes were just arbitrary for conceptualisation). Having said that authority, autonomy and accountability were interrelated concept as described in the tensional triad, in general, the principals usually identified themselves as the authority vulnerable: They risked scarifying subordinates' supports and participations by exercising their positional authority. The tensional triad was triggered by neglecting the need of autonomy of the teaching staff. Therefore, the principal had to decentralise his authority through authorising another staff, at the same time allowing high autonomy of the staff in coordinating the HPS.

Accordingly, the teaching professionals usually identified themselves as both the autonomy vulnerable and accountability vulnerable. Being non-governmental-driven, the HPS initiative allowed the school to exercise the highest autonomy in design and planning. However, teachers usually protected professional autonomy by refusal to and avoidance of extra administrative mandates in order to protect their professionalism as described in the tensional triad.

Although the worry of legitimacy of teachers performing health education and health promotion remained due to the lack of health-related training, other educational changes required the safeguarding of teacher professionalism. Therefore, again, the principal had to ensure that teachers' autonomy and professionalism were fully respected, even though hesitation, delays and resistance to change were resulted (as illustrated in the cases of School A, School O and School I).

The non-teaching staffs, owing to the inferior position in schools, were rarely leaders and coordinators of change. As such, non-teaching staffs tended to identify themselves as all vulnerable archetypes because by definition, they were not the main staffs—inferiority of positional authority—in an educational institution.

Since a whole-school initiative required accountability and autonomy of leaders, the tensional triad was triggered among the inferior authority, limited autonomy, yet inflated accountability.

On the other hand, although school nurses (in special schools) were non-teaching staff, they are less vulnerable in terms of authority, autonomy and accountability owing to trust towards healthcare professionals from school members and parents. As such, it was hypothesised that inviting a school nurse to be the HPS coordinator would trigger less the tensional triad in school systems. However, owing to the lack of school nurse in normal schools, schools could only mobilise teachers, triggering a stronger resistance of change.

Subsequently, *political balance* was obtained through a majority understanding, consensus and support from the teachers, parents and other stakeholders in the SSB in bringing about whole-school changes, as Ivan (the vice principal of School I) said *"after various negotiation with teachers, stakeholders and the SSB, every subsequent steps become smoother"*. Thus, political balancing involved the negotiation among different vulnerable archetypes, so that all stakeholders' political utility could be balanced (Weiler, 1983, 1989, 1990)

To conclude, *balancing* was a coping strategy that health promoters adopted to minimise political resistance concerning the tensional triad.

**4.4.2 Pacing—self-regulation of speed of change to increase acceptance.** *Pacing* was the second property of *Triangulating tensions.* Pacing extended the adaptation period of change, thus lessening the negative impacts of tensional triad. As described previously, schools survived the reform syndrome and encountered the tensional triad. Teachers struggled in the overwhelming workloads and growing psychological stresses resulted from classroom teachings, administrative tasks and managerial roles which obstructed them to achieve the aims of education optimally. Learnt from past experience from the maladaptation of educational reforms, slower pacing in the implementation of HPS was a coping strategy of participants to buffer the demand of accountability, preserving teacher professional autonomy and school authority (see also Y. C. Cheng, Ko, & Lee, 2016; Ko et al., 2016).

**Table 10**
**Example of coding process through constant comparative analysis of data: Pacing**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Pacing | Slower pacing in the implementation of HPS was a coping strategy of participants to buffer the demand of accountability, preserving teacher professional autonomy and school authority (see Y. C. Cheng, Ko, & Lee, 2016; Ko et al., 2016)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006)(Morberg et al., 2006) | *"There are many concurrent initiatives… all start with small steps, and adding new elements bit by bit, and then refine and improve…, I think it is an easier way of doing. If all changes came at once, we could not tolerate because of insufficient manpower and other resources, even there were external manpower to help… Sometime, in order to do it step-by-step, changes will be done piecemeal, but it allows easier refinement later because colleagues then have more experience, confidence and acceptance.* (Icy, teacher of School I) |

Owing to the limited resources, schools prioritised governmental mandated initiatives. While the educational reforms were compulsory, the HPS was voluntary that schools could self-regulate the speed if they chose to participate. For example, Icy (a teacher) said:

> *"There are many concurrent initiatives… all start with small steps, and adding new elements bit by bit, and then refine and improve…, I think it is an easier way of doing. If all changes came at once, we could not tolerate because of insufficient manpower and other resources, even there were external manpower to help… Sometime, in order to do it step-by-step, changes will be done piecemeal, but it allows easier refinement later because colleagues then have more experience, confidence and acceptance.* (Icy, teacher of School I)

Pacing was adopted by schools *not* participating in the HPS as a strategy to balance between the capacity and the development direction of schools. For example, School G (a special school) did not participate in the HPS, as Gigi recalled:

> *"We decided not to join the HPS finally… I brought up this topic to the former principal for discussion… but she believed that the school was on the same track towards the same goal. If we joined, it seems to be constrained or led by somebody else. We did not need the award to prove ourselves... but basically we were following their [CUHK] direction… As a school nurse, I was focussing on 'healthy eating' and 'environmental hygiene'; the social worker took care of the psychosocial health of the students"* (Gigi, the school nurse of School G)

Whether schools not participating in the HPS (e.g. School G) achieved the same standard of the "official" HPS or not, a balance had to be achieved between schools' development direction and their capacities, in other words, the readiness for change (Gardner & Ollis, 2015). The above case demonstrated that joining or not joining the HKHSA scheme was a process (contingency) of schools to achieve the same "healthy school" goal if they so desired. Pacing was thus a strategy to achieve a more flexible introduction and implementation of the HPS (see Gardner & Ollis, 2015). Indeed, the CUHK offered a sister initiative along

with the HKHSA Scheme: the Healthy Schools Charter (HSC) in which schools pledged to become HPS before rolling in the real accreditation processes. Pacing allowed schools to choose how fast or rigorous in the processes of change.

To conclude, regardless schools participated in the HPS or not, they adopted the pacing strategy as they situated in contexts that required them to be accountable, including for the emerging health concerns of students. This tension demanded time from schools to digest and integrate in their operations. Having said that time, usually more than 5-7 years (Buijs, 2009; Ragaišienė, 2009), were required for schools to transform (such as the HPS), *pacing* was treated as a useful strategy rather than an unwelcoming indicator of "slow progress". Therefore, *pacing* is more meaningful when schools adopt it for at least two developmental cycles. Notably, *pacing* was implied in other subcategories and properties. However, it was different from delaying or resisting changes because *pacing* was a conscious decision in setting an adaptation period. Since it was a managerial and sometimes political strategy, *pacing* became a property of *Triangulating tensions.*

**4.4.3 Desensitising—desensitise the emotional resistance of tensional triad.** *Desensitising* was the third property of *Triangulating tensions*. It dealt with the anxiety and worries of stakeholders resulting in resistance to change in the existing school cultures and practices towards new initiative. As the tensional triad existed, staff apprehended HPS as extra workloads, especially when it was set forth with the top-down approach. The top-down approach often intensified the authority-autonomy tension among teachers (Pitt, 2010; Pitt & Phelan, 2008), further undermining the motivation of change and morale of staff. Desensitising was an attempt of HPS leaders and coordinators to conceal the possible "add-on" feeling that diminished teachers' sense of autonomy. For example, Ivana regarded desensitising as a major step to induce change:

> *"Our process of change in HPS is rather smooth, because we make use of the existing structure… I know that in other schools, there are teachers complaining of doing extra… We, the principal and I, rephrased and sold it to the colleagues that 'you are doing what have already been doing now'. We scrutinise the six key factors (of the WHO HPS framework) with our reports, documents and*

> *policies to re-establish a structured framework; that is the so-called matching. We persuaded them that 'things will not be changed or added too much'. Through this strategy colleagues accepted more and implementation was easier."* (Ivana, teacher of School I)

Although the degree of readiness for change of different stakeholders in schools varied, a group consensus of readiness for change was considered to be more stable which favours the initiation and implementation of change (Rafferty, Jimmieson, & Armenakis, 2012). Through desensitising, as well as balancing and pacing, they would probably say *"okay, let's try it"* as the political resistance of authority, autonomy and accountability was *triangulated*.

To summarise, *balancing*, *pacing* and *desensitising* were inter-related properties of *Triangulating tensions* of *Streamlining Changes.* It was crucial for health promoters to acknowledge and address the tensional triad in order to reduce the resistance during the introduction and implementation of HPS.

**Table 11**
**Example of coding process through constant comparative analysis of data: Pacing**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Desensitising | Education Reforms syndrome<br><br>Anxiety and worries of stakeholders results in resistance to change.<br><br>Feelings of add-on, extra workload, burden, overwhelming, etc. Integration of new elements (from initiative or change) helps to desensitise these feelings (see also Section 4.5, Strategising) | *"Our process of change in HPS is rather smooth, because we make use of the existing structure… I know that in other schools, there are teachers complaining of doing extra... We, the principal and I, rephrased and sold it to the colleagues that 'you are doing what have already been doing now'. We scrutinise the six key factors (of the WHO HPS framework) with our reports, documents and policies to re-establish a structured framework; that is the so-called matching. We persuaded them that 'things will not be changed or added too much'. Through this strategy colleagues accepted more and implementation was easier."* (Ivana, teacher of School I) |

## 4.5 Subcategory Two—Strategising

*Strategising* (or *Strategic planning*) was a subcategory of *Streamlining Changes* emerged from the data of the current CGT study. It was a coping strategy at the managerial level. *Strategising* is led by the principal with the approval of the SMC. While the members of the SMC were the formal (authoritative) leaders in directing school's development, the principals were the key change agents. They were expected to be autonomous, fervent and accountable. *Strategising* was more than just establishing a set of rules and guidelines independent of school contexts and societal culture. Rather, strategically integration with the existing school and education systems, as well as societal trends concerning education and health were crucial.

Health-Promoting Schools (HPS) was defined by international HPS scholars as one that *changes* their curricula (Langford et al., 2014, 2015), but schools in Hong Kong were rarely able to change the government-driven curricula, triggering the tensional triad. *Strategising*, therefore, involved the practical consideration and integration of health elements in the existing curricula and school structures within the limits of school autonomy, such as the establishment of school health policies. The

schools integrated the concept of HPS in schools' existing policies, structures and practices through continuous considerations of the available resources, changing needs of students and staff, and emerging health-related concerns in the society.

Upon introduction of the HPS in Hong Kong in the early 2000s, waves of educational reforms coexisted internationally including Hong Kong (Y. C. Cheng, 2009), filtering further the understandings and perceptions of the change brought by the HPS. The *perceptions of change* were threefold: an add-on, a solution, and a calling.

Firstly, the HPS was an "add-on" to schools, imposing extra works on the tremendous workload brought by the educational reforms. For example, some participants reported the obstacle in joining the HKHSA Scheme was the lack of resources, particularly manpower:

> *"We did not join the healthy school scheme, because the former principal considered that joining the scheme would be a constraint. We did not want to spare the resources. In addition, he considered that the school was doing similar things; hence we did not apply..."* (Gigi, the school nurse of School G)

> *"I think the reason for not participating in the scheme was… the consideration of manpower. If we participated, there would be at least one to two teachers responsible for it. However, we do not have enough manpower, hence lack of confidence… I tried to invite the physical education teachers to participate, but he or she rejected for the reason of heavy workload. I accepted the rejection and did not force anyone to do so."* (Ole, the principal of School O)

> *"If we had to join the healthy school scheme by the Chinese University of Hong Kong… the application would be too complicated! Too many items on the checklist… It is too much to do in order to meet all the standards for winning an award, not to speak to sustain it."* (Nadia, the principal of School N)

Secondly, the HPS was "a solution" to safe the "dying schools"—schools would have to close if they did not have enough numbers of new student enrolment—a major stress to schools

during and after the reform (Y. C. Cheng, 2009). For example, some participants regarded the HKHSA Scheme as a timely opportunity which assisted school to overcome the reform syndrome:

> *"On my first day of appointment as the principal of this school, I reflected a lot and felt deeply. The school's atmosphere was very poor. Morale of the staff was very low. I was very concern of the situation. I felt deeply because it was my mother schools too… I must do something to rebuild the school… Therefore, I put the HPS into a long-term development plan for ten years! To save my school, so to speak."* (Leo, the principal of School L)

> *"Since the educational reforms, there were great changes to the school system.… schools had to strike for survival. Our school had to find a way out as well, thus we collaborated with universities to do something. At that moment, the Health-Promoting Schools caught my attention. You know, during the educational reforms, all teachers were very busy. To be honest, none of us had*

> *room for more works. Schools competed with each other, such as policies... That's we had to initiate some programmes. Because we are a special school, we concern more "health promotion", rather than focusing on "academic achievement".* (Fred, the Principal of School F)

While some participants (e.g. Leo and Fred) expressed explicitly the strong pressure of school closure in the educational reforms and viewed the HPS as a solution to their *"inferior status"*, other participants regarded the HPS as *"a good thing to have"* under the principles of self-management, self-learning and self-evaluating—driving concepts in the SMI—in educational reforms. For example, the HPS was regarded as a stepping stone in fulfilling the regular school self-evaluation and external school review—the core elements of quality assurance mechanism in the educational reforms—as required by the EDB (Y. C. Cheng, 2009, see also EDB, 2011). In addition, implementing the HPS was considered helpful in establishing uniqueness and (re)gaining reputation of schools under the competitive atmosphere among schools in the same district, so as to ensure the numbers of new student enrolment.

Schools formulate 3-year cycle development plans and annual self-evaluation reports which were open for access and download on school websites. Very often, awarded HPS publicised their achievements on school websites as a symbol of honour. In addition, the HPS spirit was incorporated in statements of school visions and missions which were symbolic of and coherent with the whole-person development educational goals.

Participant reported that registering HPS as one of the school development goals was a common strategy of implementation. The 3-year development plan guides the direction of school development, as well as prioritises the allocation of resources. For example, Leo mentioned:

> *"What we have to do about the HPS is to put it in the school development plan. That's how we get things focused. It is also used for the school external review. In fact, the 3-year development plan is a kind of format or model. Whatever appears in the plan, we will focus and get things done. The persons responsible for certain tasks are written in black and white. Therefore, there is no such thing like "not belonging to me". Things are then done more smoothly."* (Leo, the principal of School L)

Introducing the HPS as a school development direction reminded the principal and staff the main themes in three academic years, as Ivana and Ivan (teachers of School I) described:

*Ivana: "Indeed we have the 3-year development plan. There are 3 goals for these 3 years. Conventionally, they all focused on academic curricula, such as languages and mathematics. However, after we have started the HPS, there will be at least one goal related to health, such as moral and civic education, mental health, etc. No matter how tiny the point is, its existence catches our attentions.... Because this plan lasts for 3 years, all other planning will stick to this plan, such as the annual plan."*

*Ivan: "It means that there are annual plans to guide us in fulfilling the 3-year plan."*

Re-registering the HPS in the school plan was a tactic to remind the staff on the HPS spirit, as Ivana recalled:

*"We started the HPS since 2005. Until 2009 [the school won the Silver Award for 2006-2008], we could call ourselves whole-school doing HPS. After another 3 years*

*[the school won the Gold Award for 2009-2011], basically we all have achieved everything. The foundation is here; the road has been built. However, we want to keep the HPS spirit. Hence we keep the wordings related to health, so that we would not forget the notions, the principles and the healthy practices. Whatever appears in the 3-year development plan, we still keep the health-related goals, but it may be less emphasised as comparing to previous years."* (Ivana, teacher of School I)

Besides the HPS was perceived as an "add-on" and/or a "solution", the third perception of change to HPS was: a *"calling"* to address the emerging health-related concerns and societal problems in students.

*"For the path of becoming an HPS... from SARS [severe acute respiratory syndrome] to drug abuse in children and adolescents; from infectious diseases to obesity, or mental health problems, suicides and so on... we noticed the need to join Health-Promoting Schools."* (Kato, the principal of School K)

*"Our students [students of a special school] have more diverse health issues these days. Beside mental disabilities, there are autistic disorders, attention deficit disorder, mental health issues and epilepsy, to name just a few. The teachers know little about them, that's why we have a school nurse... The school nurse definitely helps a lot in taking care of students' physical health needs, but it requires the collaboration of the school nurse and the teachers if we were talking about health education, health promotion and whole-school approach. Recalling the time of SARS, the school nurse coordinated everything… that's why the Health-Promoting Schools addresses our needs both of the students and the society."* (Adam, the principal of School A)

*"In this generation, we face a lot of SEN [special educational needs] children. Many of their family are dysfunctional. Taking our school as an example, there are more and more new immigrant families from the mainland China, ethnic minority groups, etc. They need helps. Therefore, the values of HPS, such as equality and*

> *inclusiveness, are exactly what should be promoted. Let's say our teachers were too tense, guarded or disrespectful to these students, it would not be a healthy environment for learning and working. Hence, I love the HPS very much!"* (Leo, the principal of School L)

To summarise, *Strategising* was essentially singled out for the meso-level of the HPS processes: the interactions of schools adopting interactive strategies to lessen the resistance of change overshadowed by the tensional triad. Under the great influence of SMI (authority), adaptations to the changing educational environment, the diverse educational needs of students, the high expectations of education quality, and the demands for accountability from the public, were triangulated (with the granted school and professional autonomy) through three interactive strategies (properties): *attuning, branding, and trending.*

**Table 12**
**Example of coding process through constant comparative analysis of data: Strategising**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Strategising | SMI requires schools to formulate annual and periodical evaluations and reports. Schools perform SWOT analyses and plan ahead plan of education. There are four major areas of school effectiveness: Learning and teaching, school management, student discipline and supports, and student academic achievement. Yet, this area is indirectly related to health, or health becomes a mean to achieve these goals in school setting. | *"Indeed we have the 3-year development plan. There are 3 goals for these 3 years. Conventionally, they all focused on academic curricula, such as languages and mathematics. However, after we have started the HPS, there will be at least one goal related to health, such as moral and civic education, mental health, etc. No matter how tiny the point is, its existence catches our attentions.… Because this plan lasts for 3 years, all other planning will stick to this plan, such as the annual plan."* (Ivana, teacher of School I) |

**4.5.1 Attuning—according goals and values of health with those of education.** *Attuning* were a property of *Strategising.* It involved the considerations of the existing education policies and practices set by the government (authority) and the school-based development directions changeable according to schools' self-management, self-learning and self-evaluation with respect to school autonomy. Attuning is an attempt of relating an introduced idea to the existing values and goals of the organisation, such as those of an educational institution, in order to lessen the impact of the tensional triad. As Ivana expressed, *"health is inherently coherent with the notion of whole-person development; I don't think the principal will disagree. The strategy in obtaining the authority support is to align the health values and educational values."* (Ivana, the teacher of School I). Similar to Ivana, all participants agreed that the values of HPS is highly compatible with the values in education, such as the use of whole-school approach, the values of inclusiveness and equity, promoting positive psychology and health as a resource to life achievement. However, owing to competing and limiting resources, school could not conduct all initiatives and activities at once, or in one academic year. Thus, the *prioritisation* lies on those activities which best fit

the existing directions and overarching values, and best managed and sustained with the existing resources.

While the prioritised school development directions are changeable in cycles of self-directed school planning and self-evaluation as required by the SMI, the overarching values are highly similar among the participating schools as stated in their statements of visions and missions which were set by the SSBs as guided by the government. In the HPS schools (School A, B, C, D, F, I, J, K, L, M, and P), wordings related to health and HPS are more explicitly stated in their school plans and reports. In schools run by religious group SBBs, wordings related to spirituality were more often emphasised which was also in line with the notion of holistic health. As long as the changes in school development plan are coherent with the visions and missions, the school authority seldom disputes the implementation of those coherent initiatives except under the constraint of resources. The schools introducing health elements in the development plan would be supported by their health-oriented visions and missions which are, in fact, inherently attuned to the notion of whole-person development. Attuning is the emphasis of this innate coherence to gain long-term

support from the authority because educational visions and missions are rarely altered. The tensional triad is therefore lessened.

Attuning is also commonly led by change in school policies which results in the change of attitudes, values and behaviours of individuals. For example, school health policies integrated in school development plan require staff to act in accordance with the HPS values, reinforcing the educational values:

> *"What we have to do about the HPS is to put it in the school development plan. That's how we get things focused. It is also used for the school external review. In fact, the 3-year development plan is a kind of format or model. Whatever appears in the plan, we will focus and get things done. The persons responsible for certain tasks are written in black and white. Therefore, there is no such thing like "not belonging to me". Things are then done more smoothly."* (Leo, the principal of School L)

> *"Smoking is prohibited as stated clearly in the policies. There is no exception. There were some colleagues who used to smoke in school area, we asked them to stop smoking as stated in the school health policies…. We do*

*not allow unhealthy snacks in parties anymore. We used to have soft drinks, fries and chips and candies in Christmas parties or as gifts given to the children, but now we have only fresh fruits, fruit juice and baked or dried fruits… I know some schools even only vender machine offering distilled waters and have the tuck shop closed."* (Candy, the school nurse of School C)

*"The values that schools [education] have been promoting are, for instance, equality, trust, kindness, benevolence, honesty, courage, dignity, etc. They are all related to health, such as staying positive and mental wellness… it [HPS] promotes human rights and responsibilities which are also promoted in the education curriculum."* (Icy, teacher of School I)

On the other hand, the establishment of school health policies could also be led by the HPS leaders who have already attuned in health and education. For example, Leo (the principal of School L) has been attracted to school health promotion since his professional training as a teacher:

> *"I have always been thinking about school health promotion, dated back to my training as a teacher. Time flies, until I returned to this school (to be the principal)... I saw her "low spirits" [the morale of staff, physical and mental wellness were unsatisfactory]... I decided to adopt the HPS as the school core direction. Therefore, I put the HPS into a long-term development plan for ten years..."*
> (Leo, the principal of School L)

To conclude, attuning is a property of *Strategising* that schools formulate the policies and development directions based on the alignment of the values of health and education—reflecting and existing in the social norms—so that the tensional triad is lessened.

**Table 13**
**Example of coding process through constant comparative analysis of data: Attuning**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Attuning | Directional vision and mission of schools are rooted in universal values of goodness. These values and virtues drive people to be benevolent and altruistic.<br><br>Health is a value, and is related to other values of goodness, such as prosperity, happiness, freedom, joyfulness, etc.<br><br>Health is also of preservation, protection from ill-health. Medical values such as do good and do no harm are related to these values of goodness.<br><br>Education also aims to promote these values of goodness. | *"Health is inherently coherent with the notion of whole-person development; I don't think the principal will disagree. The strategy in obtaining the authority support is to align the health values and educational values."* (Ivana, the teacher of School I)<br><br>*"The values that schools [education] have been promoting are, for instance, equality, trust, kindness, benevolence, honesty, courage, dignity, etc. They are all related to health, such as staying positive and mental wellness… it [HPS] promotes human rights and responsibilities which are also promoted in the education curriculum."* (Icy, teacher of School I) |

**4.5.2 Branding—establishing school brands, uniqueness, competitiveness, and recognitions.** The second property of *Strategising* is *branding*. It concerns the establishment of school uniqueness, competitiveness and recognition among parents and within the communities, in turns, fulfilling school accountability through continuous reinforcement of school image or brand. While attuning concerns the long-term support from the authority, branding concerns mid-to-long-term support from the parents and communities; that is the school accountability.

Branding is a widely accepted concept in the field of business which has emerged as a new form of management strategy in education since the educational reforms (Y. C.Cheng, 2011; Y. C.Cheng, Cheung, & Yeun, 2011; Zajda, 2015). According to the American Marketing Association (2016), "a brand is a customer experience represented by a collection of images and ideas; often, it refers to a symbol such as a name, logo, slogan, and design scheme". According to Evans and Hastings (2008), branding as a concept has emerged in public health and that the basic branding principles traditionally accepted in business apply to public health too. Both of commercial and public health branding can create characters (such as healthy school logo), promote products (such as

alcohol hand rub) or services (such as dental health care), and brand the Organisation (such as a Health-Promoting School). The major difference between commercial and public health branding is the objective that the later usually does not brand for money, but rather for the change in the health behaviours and related outcomes of the target population, as well as long-term public health and social benefits (Evans & Hastings, 2008). For example, “Health-Promoting Schools” is a brand established by school health promoters through the participation of the HKHSA Scheme, the Health Ambassadors Scheme and other health-related activities which aim to promote healthy learning, working and living of the students, parents and staff.

Branding is about creating awareness, image, and value for an entity, be it an individual or an organisation; that is brand awareness (Evans & Hastings, 2008). The schools aware of their uniqueness are those conscious of their strengths and weaknesses. As evidenced in the school reports of the participating HPS, they treated the HPS as a school brand which guide their long-term development directions. Branding could be used as the tactical act of strengthening the stronger aspects of schools, such as Iris said *“we are an HPS as recognised in the district, so we will continue*

*to be as an HPS."* (Iris, the principal of School I); and as the remedial strategy to the weaker aspects, such as Leo said *"participating in the HPS scheme boosted the overall school performance and management which was unsatisfactory 10 years ago"* (Leo, the principal of School L). At school level, the members (students and staff) develop brand awareness of HPS. Individually, students gain brand awareness as a health ambassador who is a role model of healthy living among their peers. The participating HPS offered continuous experiences of healthy living to students and parents, resulting in the brand awareness. Branding helps to assure consistency of quality, hence an HPS is a quality assurance of a school constantly strengthening itself as a healthy setting for living, learning and working (World Health Organisation, 1996d). A successful HPS branding is therefore a symbol of an effective self-managing school.

Branding externally establishes school recognition, fulfilling the expectation for "school fame" of some stakeholders. On the other hand, schools and students less competitive in academic achievement would be benefited from participating in initiatives which develop both the uniqueness of schools and all-round

children. For example, Priscilla recalled her previous working experience in a less academic-oriented school:

> *"The former school that I worked in was a low-banding school, even lower than this school. Beside lower academic achievement, students had more social problems and psychological problems…. similar to the current situation of this school, the former one realised that, frankly, in order to stand out from the crowd, we must establish our uniqueness, especially academic performance was not outstanding. Obtaining different awards is important! We participated not only in the HPS, but also Green Schools… In addition, with this uniqueness, or direction, colleagues worked towards the same goal… thus, we overcame the educational reforms."* (Priscilla, the teacher of School P)

Among the academically less competitive schools, branding such as HPS is a strategy to build competiveness in the community.

Branding internally facilitate the communication to the employees, convincing them of its relevance and worth, and linking the job in the organisation to delivery of the brand essence

(Bergstrom, Blumenthal, & Crothers, 2002). Therefore, branding enhance the effect of attuning that the tensional triad would be lessened. Internal branding could shape HPS stakeholders' perception and understanding of their roles in the big picture so that they would behave consistently with Organisational expectation (Bergstrom et al., 2002; King & Grace, 2008); that is individuals would also fulfil their accountability to school authority as well. The following extract is an example of internal branding that the principal convinced the teachers to implement the HPS step-by-step:

> *"I explained to the teachers the school's situation, the low morale of the teachers and the management team. I told them whole-heartedly that why we need to change and how it links to the school missions and visions. I understood that there were a lot of work and it was a long road, but I told them that we would do it step-by-step. Therefore I put the HPS as a ten-year development goal, rather than to rush in three years or treat it as an ad-hoc project...."* (Leo, the principal of School L)

The HPS coordinators reinforced that the change would bring more benefits to the students and promised healthier working environment to the staff:

> *"We aimed to position our school as an HPS which would fit better the needs of our current and new students….the motto of school is "learn happily and grow healthily". In fact, for the staff, we dedicate to promote work-life balance and psychological health; the HPS shares similar notion of healthy workplace."* (Leo, the principal of School L)

Parental involvement or parent participation is also a strategy of *branding*. The participating HPS strategically invited parents to volunteer in various health-related activities, such as evaluating student lunchboxes for balanced diet, "fruits-day", and pest infestation prevention. Leo described the strategy to involve parents and the parent-teacher association as a mean of internal branding:

> *"As a strategic planning of Health-Promoting Schools, we reinforced the function of the parent-teacher association through the mean of parent education. It was*

> *done as an independent initiative…. We did not directly persuade the parents, say "we are promoting the HPS, so come to join us". Rather, we invite them to volunteer in various manageable tasks, such as weighing school bags, measuring temperature, environment check-up. Involving them is not enough, we provide further education. For example, while inviting them in the anti-mosquitoes campaign, we teach them about the life-cycle of mosquitoes and skill training… we equip them with proper knowledge and attitudes. These raise their interest, as well as the sense of achievement and ownership."* (Leo, the principal of School L)

This kind of internal branding, or what Crozier (1998) called "partnership as surveillance" strategy adopted by teachers and schools, helps to lessen the tension among professional authority and autonomy and accountability (Crozier, 1998). Furthermore, the reputation of schools, or positive image of schools, is established through branding from the internal to the external. According to Crozier (1998), the essence of this branding strategy is the alignment of parents' and teachers' values which reduce the

tensions and conflicts between teacher professionalism and parental demands and criticisms. The case of School M illustrated the *"fruit of branding";* the teachers of School M (Mary and Maria) mentioned:

> *"Mary: Since our school has long been recognised, as we intentionally position ourselves, as an HPS, the parents [of the new students] have no question about our healthy school policy or direction [no tuck shop; only water available but no soft drink].*
>
> *Maria: Yes, because we are what we are! A Healthy School! You could say that they parents buy-in our values and beliefs [in HPS]."*

Therefore, branding is another strategy of *attuning*. To summarise, branding is a strategy to lessen the tensional triad by fulfilling school accountability to SSBs, parents and society through establishing uniqueness, competiveness and uniqueness of schools.

**Table 14**
**Example of coding process through constant comparative analysis of data: Branding**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Branding | A brand is a customer experience represented by a collection of images and ideas; often, it refers to a symbol such as a name, logo, slogan, and design scheme (American Marketing Association, 2016).<br><br>Both of commercial and public health branding can create characters, promote products or services, and brand the organisation (Evans & Hastings, 2008) | *"We are an HPS as recognised in the district, so we will continue to be as an HPS."* (Iris, the principal of School I)<br><br>*"Since our school has long been recognised, as we intentionally position ourselves, as an HPS, the parents [of the new students] have no question about our healthy school policy or direction [no tuck shop; only water available but no soft drink].* (Mary, teacher of School M)<br><br>*"Yes, because we are what we are! A Healthy School! You could say that they parents buy-in our values and beliefs [in HPS]."* (May, teacher of School M) |

**4.5.3 Trending—addressing emerging needs of students, schools and expectations of society.** *Trending* emerged as a property of *Strategising*. As described earlier, while attuning and branding concern the long-term and mid-to-long term supports from the authority, parents and society, trending allows a shorter-term (1-3 years) of support from stakeholders because it addresses the timely needs of both the students and the school, hence school accountability.

Trending is the school members following the trends of emerging needs of students, schools and society. Schools are situated in an open system and subjected to the influences of the environment, atmosphere, ethos, and climate about health within, between and outside of schools. Stakeholders carry the influence from outside and interact inside of schools. Trending is to reflect, foresee and address the needs when schools develop their policies and development plans, so as to fulfil school accountability.

The implementation of HPS, situating in the waves of educational reforms, is shaped by various trends at different levels (Y. C. Cheng, 2009). At the macro-level, a successful HPS would have to align the values of health, health education and health

promotion with the school's values and missions. For example, Adam said:

> "*The most important impact is....we put the concepts and notions of Health-Promoting Schools into the school's education mission. In so doing, all other subsequent development would be aligned with the HPS direction*".
> (Adam, the principal of School A)

At the meso-level, parental involvement or partnership is an important strategy such as that described in *branding*. Schools also involve the community through community services, charity, and organising health carnivals. At the site-level, teaching staff were supported for attending health-related courses and trainings which enhance professional authority and autonomy. At the operational level, the use of information technology has raised some health-related concerns, such as internet addiction and the prolonged use of electronic screen products that emerged as a new accountability trend concerning student health (DH, 2014).

Owing to the increasing awareness of health in the society, "trends of initiatives" have emerged to promote health in schools. For example, the government has launched the

“EatSmart@school.hk Campaign” and the “StartSmart@school.hk Campaign” which aim to promote healthy eating in primary schools and kindergartens, respectively (DH, 2012a, 2012c). Some initiatives are indirectly related to health, but coherent with the notion of whole-person development, such as the Hong Kong Green School Award aims to encourage schools to formulate a school environmental policy and environmental management plan (Environmental Campaign Committee, Environmental Protection Department and EDB, 2012). Companies and non-governmental organisations also promote different initiates for schools, such as the Caring and Loving School promotes caring and loving cultures, as well as life education and inclusive education in primary and secondary schools (Hong Kong Christian Service, 2015), the Spinal Protection Schools Initiative for spinal health in children (Children Chiropractic Foundation, 2015), and the School and Home Energy Saving Scheme to promote energy conservation (CLP Power Hong Kong Limited, 2016). Many initiatives are usually simultaneously conducted in HPS and non-HPS schools in Hong Kong. This phenomenon of schools concurrently conducting various kinds of initiatives is on one hand encouraged by the educational reforms emphasising whole-person development, on the other hand

motivated by the needs of establishing uniqueness and reinforcing competitiveness of schools as described earlier. Fulfilling the government-led initiatives is considered a kind of addressing school accountability according to the participants (Adam, Fred, Iris, Ivana, Leo, May and Ole).

Besides, financial support from the organisations and easy-to-win nature attract schools to participate in these initiatives. These motivations have forged the trend among schools to participate in various kinds of initiatives. For example, Ivana admitted that effortless initiatives motivated her to participate:

> *"The school is a highflier and we are ambitious... We want to win as many awards as possible. However, not all of them were applied purposefully; I mean we don't have to do or change many things in order to win them, rather it's because we meet the criteria already, such as the EatSmart@school.hk, the Green School, the Caring and Loving School, depending on the trend out there..."* (Ivan, the teacher of School I)

Participants generally agreed that many initiatives are complementary with the HPS. For example, School L adopted both

the HPS and the Invitational Education (IE) as school's developmental direction:

> *"These two platforms (IE and HPS) are complementary…. the IE promotes the 5Ps (people, places, policies, programs, processes) which fit the need of management. In addition, it promotes other attitudes such as trust, respects, intentionality and care…. these elements are all related to health. I would say the IE is under the HPS."* (Leo, the Principal of School L)

Some participants, however, would prefer other initiatives, such as those mentioned above, to the HPS because of the provision of effort required in implementation, particularly when compiling documents and evidences and completion of the accreditation process were a huge workload for them. Therefore, some schools may not participate in the HPS even though they found it meaningful and worthwhile. For example, Gigi said:

> *"We decided not to join the HPS finally… I brought up this topic to the former principal for discussion... It's not because that the HPS is not worthwhile, but she believed that the school was on the same track towards the same goal… we promote healthy eating, physical exercises and*

> *environmental health. For example, we are doing permaculture…"* (Gigi, the school nurse of School G)

Following these trends fulfil parents' expectation: the accountability to parents. For example, Helen said:

> *"Despite some programmes are often ad-hoc and non-sustainable, but may be fashionable…. the parents will compare with other schools which have won all them. If we did not do similar things, the parents would complain…. it is less about whether we are active or passive, it is more about the trend. At least, we have to tell the parents that we have done these things."* (Helen, the school nurse of School H)

To summarise, *attuning, branding* and *trending* are interactive properties of the subcategory *Strategising.* They are the basic social processes intertwining to construct a path of lesser resistance imposed by the tensional triad, achieving balance—lessening the tensions—among authority, autonomy and accountability.

**Table 14**
**Example of coding process through constant comparative analysis of data: Trending**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Trending | Competitions drive schools to follow trends in order to not lagging behind, and ensure new student enrolment to avoid school closure under SMI<br><br>Inter-school competition reinforces the trend of participations in multiple initiatives | *"Despite some programmes are often ad-hoc and non-sustainable, but may be fashionable…. the parents will compare with other schools which have won all them. If we did not do similar things, the parents would complain…. it is less about whether we are active or passive, it is more about the trend. At least, we have to tell the parents that we have done these things."* (Helen, the school nurse of School H)<br><br>*"The school is a highflier and we are ambitious… We want to win as many awards as possible. However, not all of them were applied purposefully… School, depending on the trend out there…"* (Ivan, the teacher of School I) |

## 4.6 Subcategory Three—Empowering Leadership

*Empowering leadership* is the third subcategory of *Streamlining Changes.* While *Strategising* and its properties are strategies related to policy making and setting school development direction, hence more related to (top-down) managerial leadership approaches, *Empowering leadership* is one that adopted by the leaders to empower the other school members; and the school members to empower themselves to lead in a certain kind of task, projects, or initiatives, such as the HPS. It is a common element mentioned by participants when they discussed about leadership styles regardless the label that they attached to, such as horizontal, transformational, shared, distributed, situational, and modern. In other words, participants found it difficult to articulate their role as a leader to a specific leadership style because it is often mixed and flexible depending on the context of change. Since the participants always referred to the existing school hierarchy, power and structure (e.g. the SSBs, principals, teacher manager and divisions and committees), the essence of the leadership style reflected in the HPS process is one that considers, again, the balance of accountability, autonomy and authority. Adam's statement embraces all three: *"I let the school nurse to take charge of the*

*HPS… the first thing to consider is how much power and responsibility given to her."* (Adam, the principal of School A). *Empowering leadership* emphasises both self-empowerment and empowerment of the group (e.g. the school health team) in which individuals interact with each other. There are three properties of *Empowering leadership*: *critical massing, value and attitude aligning,* and *motivating.*

**Table 15**
**Example of coding process through constant comparative analysis of data: Trending**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Trending | Leadership takes both ways, top-down and bottom-up. In order to motivate, individuals have to be empowered, acquiring senses of ownership and confidence. | *"I let the school nurse to take charge of the HPS… the first thing to consider is how much power and responsibility given to her."* (Adam, the principal of School A). |

**4.6.1 Critical massing—establishing school health team, professional development, networking and partnership to lead sustainable changes.** *Critical massing* emerged as a property of *Empowering leadership.* It enhanced the team authority, accountability and autonomy, balancing the vulnerable archetypes (see Section 4.4.1, Balancing), thus streamlining the tensional triad. *Critical massing* can be performed internally and externally.

A school establishes the school health team internally by gathering staff who possesses leadership and authority in their existing role. For example, the principal and vice principals, the team leaders (senior administrative teachers) of various divisions and committees in the existing school administrative structure, such as discipline, curriculum development, teaching support, student learning and cultivation, school development, crisis management, finance, school self-evaluation, school public image and parent-teacher relationship.

Since the school health team consisted of school members from more than one committee, accountability increased. For example, Iris (principal of School I) said, *"HPS always require group decision making because it is a whole-school approach. It means whole-school participations and being responsible"*.

*Critical massing* was usually initiated by the principal (exercising of the highest authority during daily school operations) while others who would like to establish working group (exercising of autonomy among their responsible administrative areas) would need to gain the principal's support and accountable to the individuals, groups, and whole-school.

In the participating special schools, the school health teams involved school nurses because they possessed professional authority, autonomy and accountability. For example, Betty (the school nurse of School B) mentioned, *"because I am the only healthcare professional in school, the principal invited me to participate in the SHT and coordinate the HPS… A school nurse is the most knowledgeable in the area of health in school"*. Other school nurses (Candy, Diana, Elaine, Fion, Gigi and Helen) agreed that the healthcare professional knowledge was essential because their present enhanced the sense of professional authority. On the other hand, participations of division leaders in school health teams established a sense of positional authority. For example, Kato (the vice principal of School K) mentioned, *"I lead HPS because I am the 'second head' of school, the members of school health team are*

*all heads of division that could convince other staffs and parents that the HPS is a must”.*

*Critical massing* within schools involved not only the division leaders for their leadership and authority, but also involving staff who was interested in the specific project for optimal function of school health team as matching of self-interest enhanced the sense of individual and professional autonomy. Iris (the principal of School I) was proud of *“choosing the right person”* as she recalled, *“Ivana expressed that she was highly interested in leading the HPS. She is fervent, committed and accountable”*. In contrast, Ole insisted to promote school health while the school health team was less established, he recalled:

> *“One of the reason for not joining the HPS, frankly, is that none of my teaching staff was enthusiastic to lead or coordinate, therefore I do it myself despite I am really busy as a principal. Our clerk, Olivia, helps me…”* (Ole, the principal of School O)

Contrasting to schools with multi-division school health team (such as School A, I, L, M, K, and P), the team of School O was less authoritative and accountable because it only consisted of

the principal (Ole) and the clerk (Olivia) only. Olivia said, *"I was not able to participate in the decision-making of HPS; only the principal holds this power to lead other teachers"*. For conceptualisation, streamlining tensional triad requires internal critical massing which consists of multiple division leaders to form an authoritative, accountable and autonomous SHT.

*Professional development* was a sub-property of internal *critical massing* that individuals were empowered to implement HPS through formal and informal courses, seminars and workshops related to their teaching profession. In the participating HPS schools, these trainings enhanced the authority and accountability of staff by equipping knowledge and skills of school safety, health education and health promotion.

With the increasing demand of accountability by the SMI, *professional development* of teachers and principals became a mean of fulfilling accountability and development of professional autonomy in schools (Council on Professional Conduct in Education, 2008; Ko et al., 2016). For example, some participants (Adam, Ann, Ivana, Peggy and Priscilla) initiated HPS-related trainings because they treasured its symbolic meaning of high autonomy. This enhanced individual autonomy gave them a sense

of ownership. Some principals (Adam, Leo, Kato, Fred and Iris) encouraged staff to complete the trainings in order to develop competence in implementing HPS, in turn fulfilling school accountability.

Although the typical sense of professional development in school concerns quality education, HPS as a kind of professional development served the holistic education goals and managerial goal (SMI). Finally, some teacher participants concerned the lack of health education and health promotion related training that downgraded their professional authority and autonomy. Professional developing was a remedial strategy to this situation. In some cases (School L, M, and P), new teaching staff was invited to join the school health team as an initiate step of professional development.

*Championship* is a sub-property of *critical massing*. Internal and external champions served as catalysts that empowered other school members in the HPS process. Internal champion was a health promoter who demonstrated high commitment, vision and values attuning to the goals of HPS, in turns, demonstrating the possible visions of what the HPS changes could achieve. Similarly, external champions came from other

successful schools that demonstrated a role-model. Usually, the internal champion served as the external champion of other schools. For example, internal champions attended seminars, workshops, ceremonies and sharing sessions. Therefore, external *critical massing* involved external championship through *networking and collaborating*.

*Networking and collaborating* is a sub-property of (external) critical massing. Schools networked with others schools to exchange information and share experiences. *Networking* thus brought resources to schools. Schools collaborated with healthcare professionals from government, NGOs, and tertiary institutions on project-base (such as health carnivals and parent days) that these parties brought their professional knowledge and skills to schools, in turn, balancing the tensional triad. For example, Ole (the principal of School O) mentioned,

> *"I invited the School of Nursing, PolyU to deliver Health promotion and health education activities. They got a team of nurses and nursing students. We have work together for nearly ten years and we appreciate their professional and commitment… For most of the time*

> *whatever they proposed to do, our school will cooperate with them."* (Ole, the principal of School O)

The school health team of School O consisting of the principal (Ole) and the clerk (Olivia) were vulnerable in term of professional authority and accountability, thus collaboration with healthcare professional greatly empowered the school. Therefore, external critical massing was essential in empowering school health teams by enhancing professional authority and accountability.

To summarise, *critical massing* enhance authority, accountability and autonomy through establishing of school health team. Professional development of staff, championship, and networking and collaborating were the properties of *critical massing* that empowered the whole-school in HPS.

**Table 15**
**Example of coding process through constant comparative analysis of data: Critical massing**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Critical massing | School health teams consist of at least one fervent and committed members working towards and promoting the desired change. | *"Because I am the only healthcare professional in school, the principal invited me to participate in the SHT and coordinate the HPS... A school nurse is the most knowledgeable in the area of health in school."* (Betty, nurse of School B) |
| | The team members have to specialise in areas of the proposed change, in terms of professional knowledge of the field, and management skill in school setting. | *"One of the reason for not joining the HPS, frankly, is that none of my teaching staff was enthusiastic to lead or coordinate, therefore I do it myself despite I am really busy as a principal. Our clerk, Olivia, helps me…"* (Ole, principal of School O) |

**4.6.2 Values and attitudes aligning—establishing the values and attitudes of leaders.** *Value and attitude aligning* was the second property of *Empowering leadership*. Leaders of schools were authoritative figures in leading changes, such as principals. The values and attitudes of principals were coherent with those of an educator expected by the SSBs, teachers, parents and society.

The participating principals intentionally selected staff with leadership potentials and qualities to lead HPS: optimistic, appreciative, empathetic, caring, confident, positive mindset, open-minded, cooperative, responsible, adaptable to changes, respect self and others, diligent and committed. This selection process was conceptualised as *value and attitude aligning*.

Conventionally, teachers were regarded as more professional when they possessed these qualities (A. Hargreaves, 2000). It was also the case when teachers became HPS leaders that possessing values conducive to HPS became a prerequisite for them to lead HPS. For example, Iris (principal of School I) looked for *"suitable people"* who are *committed, upholding positive attitudes towards challenges"*. These qualities were also regarded as important personal traits for effective leaderships (Leithwood, Harris, & Hopkins, 2008). Hence, aligning values and attitudes (of

school members) conducive to education was essential to school leadership and maintenance of school and professional authority, accountability and autonomy (see Watson, 2013).

*Delegating and enabling* was a sub-property of *values and attitudes alignment.* It concerned the decentralisation of authority (decision-making power) from the principals who assigned accountability and autonomy (roles and responsibility) to the staff. In the process of HPS, principals respected and encouraged group decision-making while expected there was at least one competent HPS coordinator in the school health team. The principals emphasised positive attitudes and values as well as commitment of staff. This strategy allowed high autonomy when the school health team shared common values and attitudes towards organisational changes.

**Table 16**
**Example of coding process through constant comparative analysis of data: Values and attitudes aligning**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Values and attitude aligning | Leaders through delegation or emergence: optimistic, open-minded, cooperative, responsible, flexible, committed, diligent, etc.<br><br>These qualities were also regarded as important personal traits for effective leaderships (Leithwood, Harris, & Hopkins, 2008).<br><br>Allows highly autonomous school members with the prerequisite of shared values and attitudes towards organisational changes | *"I look for suitable people who are committed, upholding positive attitudes towards challenges."* (Iris, principal of School I) |

**4.6.3 Motivating—motivating to improve performance, relationship and self-actualisation.** The third property of *Empowering leadership* was *motivating.* Motivating embraced sub-properties that increase individual performance through empowerment: *crediting* and *professional development*.

*Crediting* was a sub-property of *motivating* which concerned recognising individual efforts in terms of both material and non-material formats, such as honouring and career promotion. The achievement of the HPS awards was a materialised honour to the efforts in HPS transformation. The staffs coordinating the implementation of HPS (Ann, Betty, Candy, Diana, Fion, Ivana, Lucy, Jane, May, Mary, Maria, Peggy and Priscilla) felt empowered by the HPS award. For example, Ivana said, *"I am more confident in continuing the HPS after we were awarded. The principal trusts me more and now, you may say I am more autonomous in deciding what to do next about the HPS because she will probably support me"* (Ivana, the teacher of School I). Although attaining the award was not the ultimate goal of participation, the accreditation motivated the school health team and others to sustain the HPS processes, and benefited teacher autonomy. Although career promotion was seldom granted by HPS

participations solely, recognition and crediting staff's efforts and success in the HPS process motivated the staff to sustain commitments. For example, Ivana also mentioned: *"despite the HPS does not link directly to any career ladder in the educational, the recognition from the principal and my colleagues motivated me to continue on this project… I also regarded it as my professional development."*

*Professional development* was also a sub-property of *motivating*. From the perspective of individuals, it was a self-motivated process when one regarded HPS as a path to achieve higher in the education career ladder, as well as a path to achieve students' health and education goals.

**Table 17**
**Example of coding process through constant comparative analysis of data: Motivating**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Motivating | Crediting, or giving incentive motivates people.<br><br>Professional development is a non-material motivation<br><br>Extra funding motivates change. | *"I am more confident in continuing the HPS after we were awarded. The principal trusts me more and now, you may say I am more autonomous in deciding what to do next about the HPS because she will probably support me"* (Ivana, the teacher of School I).<br><br>*"Despite the HPS does not link directly to any career ladder in the educational, the recognition from the principal and my colleagues motivated me to continue on this project... I also regarded it as my professional development."* (Ivana, the teacher of School I). |

## 4.7 Category Four—Cultivating

*Cultivating,* or *Cultivating ethos* was the fourth category of *Streamlining Changes.* It was a “down to earth” or grounding strategy that school health policies, guidelines and initiatives were implemented and sustained by health promoters and the SHT. Therefore, cultivating required the longest time to manifest the effort invested—all other categories (strategies) mentioned previously. For example, literature suggested that it took more than 5-7 years for a school to fully transform into an HPS (Buijs, 2009; Ragaišienė, 2009). In this study, School I was the most sustainable HPS winning three times of the HKHSA since 2008. The principal (Iris) and the HPS coordinator (Ivana) also emphasised that cultivating a health-promoting ethos required the longest time. Sustainment of HPS became easier when *“everything is inside the structure”* (Ivana, teacher of School I). This sustaining period required cycles of learning (*experiential learning and teaching*), implementation (*role-modelling*), and evaluation (*reflecting*). As evidenced by the participating schools, this cultivating cycle completed periodically through the 3-year cycle of school developmental planning, as well as external school reviews (ESR). In addition, the cultivating cycle could be as short as an ad-hoc HP

project that the health promoter acted as a healthy role-model (*role-modelling*) and reflected upon their experiences in teaching or learning, or both (*experiential learning and teaching*). Through cultivating, health of both students and staffs was enhanced by continuous improvement of healthy literacy and health awareness.

*Cultivating* was essential not only to establish a health-promoting ethos in school, but also to optimise the balance among authority, accountability and autonomy that contributed to the tensional triad. In the study, teachers (HPS coordinators) acted as a health authority when they taught health-related knowledge and skills to the students. Sometimes, the students (health ambassadors) acted as a health authority to their peer too after they had received trainings as health ambassadors. Similar to prefects, schools nominated students to become the health ambassadors for two purposes: learning and teaching. They role-modelled healthy lifestyle, and mimicked an authoritative figure in health promotion. Similar to the HPS coordinators, ideally, the health ambassadors possessed relatively high autonomy, accountability and authority in decision-making on Health promotion and health education activities. In reality, health ambassadors' autonomy, accountability and authority are limited, at least, under supervisions (usually the

HPS coordinators or teachers). Having said that health ambassadors possessed limited autonomy, accountability and authority owing to the reason of its intention in teaching and learning, it was indeed a manifestation of decentralisation of power. In other words, the reason for *Cultivating* being an important strategy for schools to sustain HPS was that it manifested the SMI ideal of whole-school decision-making.

Therefore, *Cultivating* was more than just creating a health-promoting ethos in HPS schools; it also involved the re-creation of the values, attitudes and practices of SMI. In other words, in order to sustain the HPS, cultivating to students should be coherent to that of cultivating to staffs in the spirit of *Triangulating tensions* existing in the SMI (see Section 4.4, Category One: Triangulating tensions). There were three sub-properties of *Cultivating*: *experiential teaching and learning, role-modelling* and *reflecting*.

**Table 18**
**Example of coding process through constant comparative analysis of data: Cultivating**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Cultivating | School change requires a long-term cultivation of appropriate ethos (social environment)<br><br>An ethos is appropriate when managerial values, attitudes and practices (i.e. SMI) are conducive to the manifestation of education (and health) values and goals in schools' daily operation (see Ragaišienė, 2009).<br><br>Ethos favouring organisational change would be one that the tensional triad is moderated by individual actions and behaviours. | *"It a matter of making health behaviours the habit of students."* (Ann, nurse of School A)<br><br>*"Healthy lifestyle is about habit."* (Gigi, nurse of School G) |

**4.7.1 Experiential teaching and learning—learn and teach through experiences, trials and errors.** *Experiential teaching and learning* was a subcategory of *Cultivating*. Participants mentioned that HPS was more than classroom teaching of health literacy, more importantly HPS involved practices and real life experiences. These practices and real life experiences concerned not only students' learning, but also teachers in developing teaching skills in health promotion and health education, and management skills in HPS coordination.

In order to provide experiential learning opportunity to students, student participation was key, such as the HAS (School I, J, K, L, M, N, O and P) in which students learned and promoted health-related knowledge and skills to other schoolmates, including personal hygiene, water drinking, healthy diets and snacks, physical exercises and eye protections. The teachers leading these HP activities were responsible to provide or allow a real life scenario that the students submerged, practiced, and learned. The teachers also immersed in the experiential learning as they designed, implemented and evaluated the choice of learning objectives, teaching materials, methods and techniques which usually integrated in the SMI processes. For example, Ivana said,

*“We have learnt through the processes, steps-by-steps, years-by-years. Now the HPS is essentially incorporated in the school structure and daily operation, including the visions and missions of school.”* (Ivana, teacher of School I). In some occasions, experiential teaching and learning was conducted outside of the schools, such as attending professional training in universities. Giving health promotion sessions (personal hygiene, such as hand-washing techniques, proper wearing and handling of face masks, and healthy breakfast) to their nearby kindergartens was another example of experiential teaching and learning through conducting health-related projects in the community (such as School I, L, M, N and O).

Experiential learning and teaching was essential to develop one’s individual autonomy in decision-making, including making healthier choices (Kenny, 1993). To enhance the students’ individual autonomy in adopting healthier behaviours, some participating schools even allowed the students to participate in programme design. For example, School K involved students in setting learning objectives to better preserving the environment. They students requested to perform a surveillance of school’s weekly water consumption. Finally, the students formulated plans

and strategies to reduce water consumption that were proposed to the principal for whole-school implementation. School K also established a student council in which students were trained in planning, proposing, debating, implementation and evaluation of school activities. Kato (vice principal of School K) said, *"the student council trained future leaders who could think independently and critically. When their plans were approved by the school, they could implement the plan autonomously with the supervision of teachers"*. These examples demonstrated the general processes of experiential learning: experiencing and reflecting (e.g. Moon, 2004). Autonomous decision-making was taught and experienced among students through active participation. Individual autonomy of students were respected and cultivated.

Staff acquired individual and professional autonomy in teaching and project coordination. For example, Ivana (teacher of School I) claimed that even the process of HPS was completely new to her, this unfamiliarity actually allowed her to learn autonomously. Through consecutive 3-year cycles of school planning, she created and modified ways in HPS, heath promotion and health education for her school.

To summarise, *experiential learning and teaching* was a subproperty of *Cultivating* that students and staff taught, learned and practiced the spirit of authority, autonomy and accountability.

**Table 19**
**Example of coding process through constant comparative analysis of data: Experiential teaching and learning**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Experiential teaching and learning | Experiential learning and teaching was essential to develop one's individual autonomy in decision-making, including making healthier choices (Kenny, 1993) | *"My son [a graduate of School M] was the health ambassadors of the school.... Now he keeps this habit in secondary school even though the school do not run the health ambassador scheme."* (Mabelle, parent of School M) |
| | Schools also learn through cycles of planning and evaluation. | *"We have learnt through the processes, steps-by-steps, years-by-years. Now the HPS is essentially incorporated in the school structure and daily operation, including the visions and missions of school."* (Ivana, teacher of School I). |

**4.7.2 Role-modelling—demonstrate and behave according to professional beliefs and values.** *Role-modelling* was a subcategory of *Cultivating*. Participants agreed that children learn not only in classroom, but also through observation and mimicking healthy behaviours of the teachers and peers. Therefore, the establishment of school's social environment (health-promoting ethos) required role-modelling of staff and parents, particularly the HPS leaders. Role-modelling was subtle as it concerned the behaviours, which represented the values and attitudes, of the individuals. The health promoters, particularly principles, school nurses and HPS coordinators, behaved in accord with their professional image that they lived healthily, such as using stairs instead of lifts to promote importance of physical exercise. To promote healthy eating, staff chose healthy and balanced meals and restricted consumption of unhealthy food and drink at schools. Demonstration of high standard of personal hygiene and manners were required.

Since *role-modelling* in HPS concerned the alignment of health values and attitudes, it generated both the sense of individual autonomy for being able to exercise individual choices of healthy

behaviours, and the sense of professional autonomy for being able to become the "health representatives" (HPS coordinators and health ambassadors). Autonomy required the health promoters to equip themselves in knowledge and skills of health education and health promotion through, for example, *professional development* and *experiential learning and teaching*.

In *role-modelling*, the health promoters also acted as a "health authority" that were accountable to what they taught and how they behaved—in accord with health values and attitudes. For example, health ambassadors of School M were chosen owing to their excellent "conduct" in adopting a healthy lifestyle themselves. Michael (health ambassadors of School M) reported, *"I was chosen by the teacher [Mary] because I demonstrated healthy lifestyle not just at school, but also at home. That's my habit"*. Mary (the teacher of School M) also reported that *"our students even prefer to be health ambassadors to prefect because it was regarded by the peers as more professional (authoritative) in an HPS"*. Therefore, *role-modelling* concerned the cultivation of the senses of authority, autonomy and accountability among students.

To summarise, *role-modelling* helps to cultivate school ethos through daily demonstration and exercising of beliefs and values of schools.

**Table 20**
**Example of coding process through constant comparative analysis of data: Role-modelling**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Role-modelling | Role-modelling could be achieved in both teachers and students.<br><br>Students mimic adults, heroes and authoritative figures. | *"I was chosen by the teacher [Mary] because I demonstrated healthy lifestyle not just at school, but also at home. That's my habit."* (Michael, health ambassadors of School M)<br><br>*"Our students even prefer to be health ambassadors to prefect because it was regarded by the peers as more professional (authoritative) in an HPS."* (Mary, teacher of School M) |

**4.7.3 Reflecting—formal and informal, individual and group discussions and evaluations.** *Reflecting* was a sub-property of *Cultivating*. Formal reflections were evidenced in school annual reports in which staffs performed self-evaluations on school performance, such as school's strengths, weaknesses, opportunities and threats (SWOT analysis). Self-evaluation was part of the notion of self-management in SMI which was the characteristic of a social complex adaptive system (Keshavarz et al., 2010).

School self-evaluation involved the reflections of individuals who exercised individual and professional autonomy, fulfilling the accountability of the teaching profession and of the school. In order to formulate the reports, division leaders met to discuss and evaluate the team performance, and to scrutinise how well schools in fulfilling educational and management goals. The evaluation processes formed a formal feedback loop from the bottom (individual stakeholders) to the top (principals and SSBs). For example, SSBs and principals adjusted the school development direction for the coming cycle (e.g. *branding* [Section 4.5.2] and *trending* [Section 4.5.3]).

Other formal and informal feedback loops included Parents-Teachers Associations (PTA), parent activity groups, student

councils, religious support groups, and alumni associations. Drawing upon the principles of SMI, *cultivating* in the HPS process involves all these formal and informal feedback loops so as to establish and sustain a health-promoting ethos.

Many principals and vice principals (Adam, Fred, Iris, Kato, Leo, May and Ole), teachers (Ivana, Ivan, Irene, Icy, Lucy, Jane, Mary, Maria, Peggy and Priscilla), school nurses (Ann, Betty, Candy, Diana and Fion) and parents (Kala, Margie and Mabelle) of the participating schools agreed that the schools' openness towards feedbacks contribute to cultivate a health-promoting ethos. This appreciation from the stakeholders indicated that schools allowing horizontal decision-making (e.g. *Empowering leadership* [Section 4.6]) was indeed cultivating a favourable ethos towards exercising autonomy, fulfilling accountability and respectful of authority.

Similarly, reflection among students related to HPS could be done formally and informally. For example, the awarding ceremonies of Health Ambassadors Scheme and HKHSA Scheme were formal occasions in which students' services as health-promotion leaders were recognised. The students presented their work on stage require prior preparations that was also a reflection process. Teachers and parents feedbacks were common examples

of informal feedbacks to the students. Very often, the students also shared their experiences and reflections in different occasions, such as morning assembly, Parents Day and school broadcast videos uploaded on schools' webpage. Posters, slogans and artworks containing self-reflection contributed to school ethos by constant input of health messages consciously and subconsciously. All of them served to cultivate a health-promoting ethos in schools.

To summarise, reflection could be done formally and informally within individuals and groups, continuously cultivating a health-promoting school ethos.

**Table 21**
**Example of coding process through constant comparative analysis of data: Reflecting**

| **Categories/ properties/ concepts/ codes** | **Constant comparative analysis of all "slices of data"** | |
|---|---|---|
| | Data from other data sources, including, literature, school documents, and memos | Data from interview transcripts, field notes, and memos |
| Reflecting | SMI process is a reflecting process of schools. Openness towards and appreciations of various feedback loops benefit the cultivation of a favourable ethos. | *"The SMI pushes us to perform school evaluation, rather we welcome it or not."* (Fred, principal of School F) |

## 4.8 The Model of TSC

To capture this complexity of the whole conceptualisation, a three-dimensional (3-D) model is formed as shown in Figure 5.

In Figure 5, the 3-D perspective is symbolic of the complexity of the Theory of Streamlining Changes (TSC). The TSC is represented by *two concentric pyramids* pointing opposite to each other (upward-downward) which are enclosed by the open ecological system (only micro and meso systems are shown here for the sake of simplicity). The *outer* pyramid (SC-pyramid) represents the core category (*Streamlining Changes* [SC]). The *inner* pyramid (category-pyramid) represents the other categories (and their properties). This inner-outer arrangement and the upside-down positioning of these two pyramids symbolise the integrative, holistic and dynamic nature of TSC.

The vertexes of the inner Category-pyramid are cutting the edge (line) of the outer SC-pyramid. In other words, the inner pyramid is supporting the outer pyramid. This symbolic interlock represents that the coping strategies (categories) are supporting the overall process of streamlining.

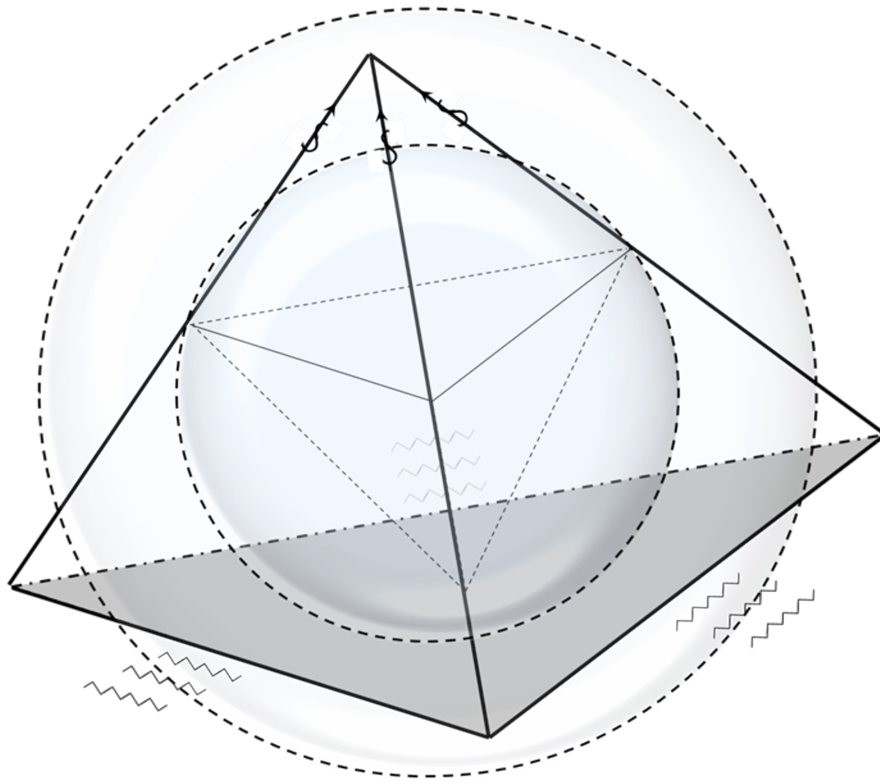
The "shaded triangle", which symbolises the tensional triad, overshadows the process of change. In other words, the efforts of

change encounter resistance from the tensional triad. The "arrowed-S" ( ) on the SC-pyramid denotes the *direction of change relative to the triangular base of the pyramid* (e.g. the tensional triad), thus they are pointing to convergence. This symbolises the concept of "quantum jump" in trialectics (see Section 5.4.2, TSC as a trialectical model, for further discussion).

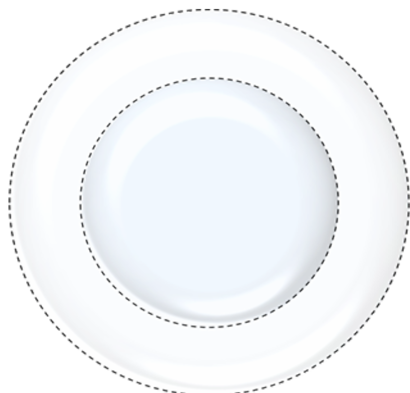
Figure 6 presents a simplified, two dimensional (2-D) diagram of the TSC. Figure 7 recaps the tensional triad in 2-D shaded triangle.

To summarise, the holistic representation of TSC symbolises the absence of either one strategy (category) will weaken the pyramids (outer and inner) and hence the power of *Streamlining Changes*. It also represents the whole-school approach by the illustration of interlocking pyramids. The 3-D model integrated the understanding of the multi-level and complex interactive nature of school systems. Strategies applied at a particular level will inevitably interact with other strategies at other levels.

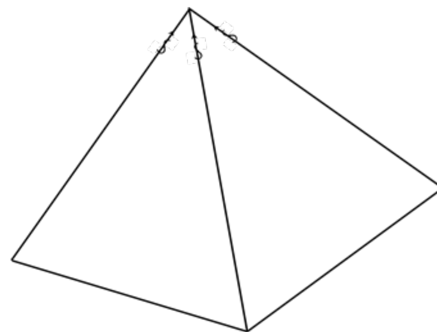
Figure 5
Theory of Streamlining Changes (3-D Illustration)



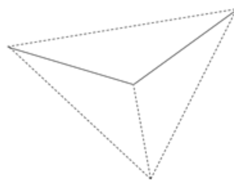
*Legend:*



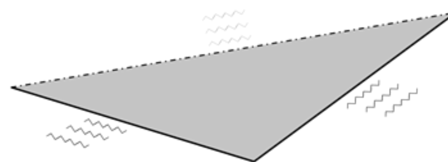
Micro-meso-systems



Streamlining Changes

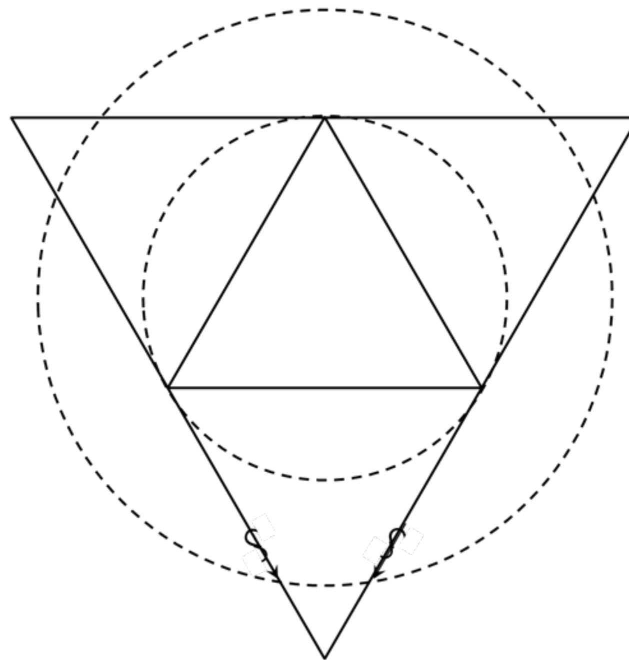


Categories

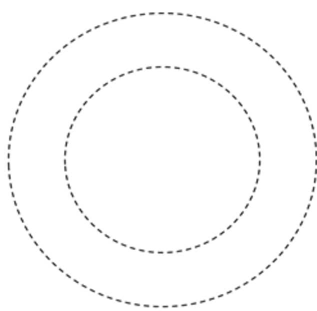


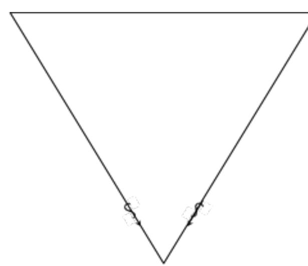
Tensional triad

Figure 6
Theory of Streamlining Changes (2-D Illustration)



*Legend:*



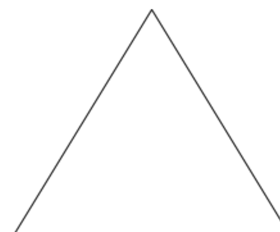
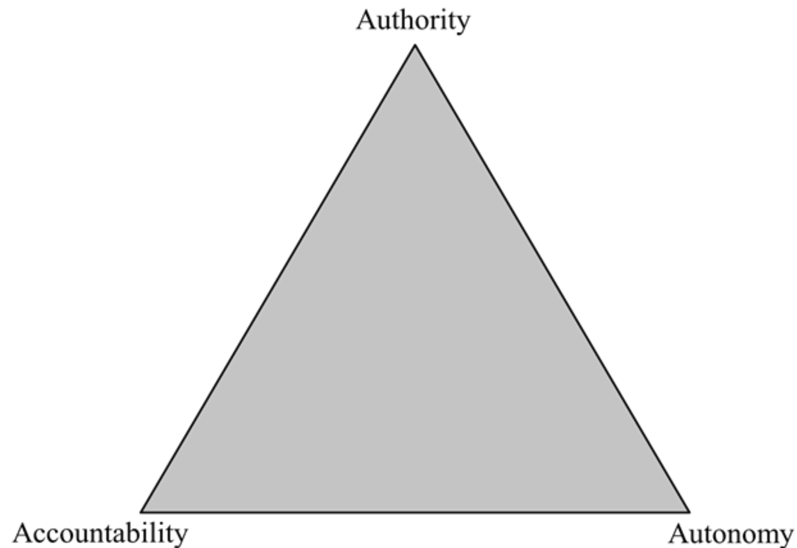



Figure 7
The Tensional Triad (Shaded 2-D Illustration)




## 4.9 Conclusion

In this chapter, the researcher described the data obtained from the investigation of schools implementing the Health-Promoting Schools (HPS). The researcher discovered the main concerns of schools were to achieve the goals in education for students, and the goals in school management, namely the School-base Management Initiative (SMI). Health-Promoting Schools was conceptualised as a manifestation of broader school (organisational) changes that were conducive to the beliefs, values and practices in the education sector.

The tensional triad emerged as the major resistance to change. The researcher conceptualised the resistance as the tensions among authority, autonomy and accountability.

In order to implement and sustain changes, schools had to overcome the tensional triad. The main strategy of schools in solving their main concerns (overcoming the tensions) emerged as the core category - *Streamlining Changes*. The four subcategories—*Triangulating tensions*, *Strategising*, *Transforming leadership* and *Cultivating*—interact holistically to lessen the tensions.

In the next Chapter, the Theory of Streamlining Changes (TSC) will be further discussed with theoretical inputs other than the study's interviewing data: organisational paradoxes.

# CHAPTER 5

# DISCUSSIONS

## 5.1 Introduction

In Chapter 4, the researcher described findings, the process of data analysis and conceptualisation of the core category, categories, properties and sub-properties of the Theory of Streamlining Changes (TSC). The core category—Streamlining Changes—emerged as the main coping strategy of schools implementing and sustaining organisational changes, including the Health-Promoting Schools (HPS). This main strategy aimed to solve the latent pattern of schools implementing changes: to take the path of the least resistance in encountering the tensional triad.

Tensional triad is the latent obstacles of schools implementing and sustaining organisational changes. Tensions among authority, autonomy and accountability exist in schools undergoing continuous educational reforms, particularly the School-based Management Initiative (SMI) that requires school to be transparent in their school management, as well as accountable in school effectiveness or performance. Implementation of HPS helps schools to achieve educational goals and management goals.

The TSC is a parsimonious holistic model which describes and explains the coping strategies adopted by school in lessening the existing tensions in the process of adapting to these ongoing changes.

The TSC is arranged in a 3-Dimensional (3-D) model as described in Chapter 4 (Figure 5) for three reasons:

1. The TSC is developed upon the understandings of complex system that non-linearity dominates in organisations under the holistic perspective, hence it is difficult to claim any causal relationship among the strategies adopted by school members. The pyramid arrangement of strategies (categories) (Figure 5) represents complexity and non-linearity.

2. The TSC is developed upon the understandings of organisational paradoxes and responses that the tensional triad could not be solved, and schools members could only cope/live with these tensions. The shaded-triangle of tensional triad (Figure 5) represents non-solvability.

3. The TSC is developed upon the understandings of logic of trialectics that the change process does *not* present in a series of events. Rather, change/mutation occurs through attraction or result from being attracted to different possibilities. The outer SC-pyramid (Figure 5) represents the logic of trialectics. The 3-D arrangement (and hence the different vertexes of the SC pyramid) represents the ideas of change possibility.

In this chapter, the integrations of complex system, organisational paradoxes and responses, and the logic of trialectics will be discussed.

## 5.2 The Theory of Streamlining Changes (TSC) and Its Propositions

The Theory of Streamlining Changes (TSC) is a parsimonious grounded theory which explained the complex social process of schools in taking the path of least resistance to accommodate organisational changes.

To recap, the tensional triad (Chapter 4) has shaped the overall school actions and reactions towards organisational changes. The schools have adopted various coping strategies to live with this paradoxical tensional triad, thus the four (4) categories and the twelve (12) properties (Table 7), including: Category One (1): *Triangulating tensions* (properties: *balancing, pacing,* and *desensitising).*Category Two (2): *Strategising / Strategic planning* (properties: *attuning, branding,* and *trending*). Category Three (3): *Empowering / Empowering leadership* (properties: *critical massing, values and attitude aligning,* and *motivating*). Category Four (4): *Cultivating* (properties: *experiential teaching and learning, role-modelling,* and *reflecting*).

Glaser (1978, 2005, 2015) mentioned that there was no clear boundary between categories, properties and concepts. *Triangulating tensions* accounts for the strategy to cope with the tensional triad and resistance to change from the principals' or managerial "top-down" perspective. Other categories could be considered as "bottom-up" strategies. The remaining three categories—*Strategising, Empowering leadership,* and *Cultivating*—represent the policy-decision making, team interactions and individual *internalisation* processes, echoing with

the existing school hierarchy (decision levels): school board (school management committee), divisions, teams and subgroups, as well as individuals, respectively. Finally, the core category—*Streamlining Changes*—emerged to capture the complex interactions of all these categories (and their properties) that are represented by a 3-D model of Theory of Streamlining Changes (TSC) (Figure 5).

The core category, *Streamlining Changes*, is the one that "most related to the other concepts of the emerging theory… that explains most of the variation in the data or in the studied behaviour" (Glaser, 2015, p. 79). In addition, the TSC is a complex process as the researcher conceptualised: A school is an ecological, social complex adaptive system and that the change processes are also complex, meaning that there is no linear causal relationship in the studied behaviours, such as the success of HPS or organisational changes.

Before discussions in the remaining chapter, the researcher would like to set three propositions of the TSC (Glaser, 1978, 1998, 2014b):

Proposition 1: The TSC represents the complex process of organisational change in schools (including

but not limited to the process of schools in becoming, attaining, and sustaining as an HPS/health-promoting institution) overshadowed by the tensional triad which is a representation of inherent organisational paradoxes.

Proposition 2: The application of TSC (to streamline organisational changes) is to apply all coping strategies (categories and properties) in schools simultaneously across all levels (whole-school approach).

Proposition 3: The application of TSC (to streamline organisational) does not guarantee change, but increases the tendency/possibility/probability of change towards the direction as the organisation so defines or desires.

## 5.3 The TSC as a Social Complex Adaptive System (SCAS) Concept

Being emergent in the school systems, the TSC in this study, or the model of taking the pathway of the least resistance in adapting organisational change is therefore complex and holistic as it embraces all ecological levels and the concept of SCAS.

**5.3.1 The complexity of the tensional triad and coping strategies.** As described in Chapter 2 (Section 2.9), properties of SCAS include unpredictability and non-linearity. Even school members have planned thoroughly in health education and health promotion, or any kind of school changes in advance, one cannot predict the process of implementation would turn out as planned (Keshavarz et al., 2010). Since changes happen in SCAS affect all levels and subsystems simultaneously and ecologically, it is impossible to claim any linear causal relationships in school or organisational change (Keshavarz et al., 2010), and this logic applies to the tensional triad and hence the coping strategies (categories and properties) of TSC.

The unpredictability and non-linearity of SCAS further complicate the tensional triad dynamics in schools. Since

leadership dissemination is multi-levels, such as the designation of HPS coordinators and student health ambassadors, the leader-follower boundaries are therefore blurred, and the authority-autonomy dynamic become more complex. Sometime, leaders emerge from a social group, such as parent leaders. This emerging property of leadership in SCAS thus assumes the participation of stakeholders outside the school system. Albeit the principals are still the most authoritative person in schools' daily operation, the success of HPS and other organisational changes depend on other emerging leaders, including teachers, parents, social workers and school nurses. This phenomenon is also known as *emergence*: a property of SCAS embracing the concepts of unpredictability and non-linearity of processes and outcomes (Keshavarz et al., 2010).

Emergence means that, with little chance of *a priori* prediction from individual behaviours, a latent regularity is still possible to emerge when the system is scrutinised as an entity (Keshavarz et al., 2010). This "whole system" is the essence of whole-school approach in HPS, student discipline and other educational processes (EDB, 2010). Therefore, the TSC is a representation of this system-wise emergence.

In the TSC, applying any "single" strategy will inevitably affect the tensional triad which in turns influence the whole (complex) system (although the magnitude or degree of influence is unknown). The same happens in any "missing" strategy that the schools fail to apply. Therefore, the researcher recommends that applying all possible strategies of TSC in schools if they want to maximise the chance of "successful" organisational changes. In other words, *Streamlining Changes* is *seemingly* as simple as applying the coping strategies as many as possible with the awareness and understanding of the tensional triad. However, the tensional triad is rooted in the logic of paradox which often causes *confusions*, *paralyses in decision-making* and *inactions* of school leaders and members in working towards organisational change (Cameron, 2008; Jay, 2013; Lushcer & Lewis, 2008; Sheep, Fairhurst, & Khazanchi, 2017) which will be further discussed in the remaining sections.

## 5.4 Tensional Triad as Organisational Paradoxes

Paradoxes are contradictory, and even mutually exclusive, yet interrelated elements (e.g. thoughts, actions, or emotions) that exist simultaneously and persist over time, and that seem logical

when considered in isolation, yet irrational and inconsistent when juxtaposed (Lewis, Andriopoulos, & Smith, 2014; Van Nistelrooij & De Caluwé, 2016). The tensional triad is indeed a manifestation of organisational paradoxes. According to W. K. Smith and Lewis (2011), paradoxes are the manifestation of underlying dualistic tensions of between two elements, complex trialectics and even pluralistic tensions. The tensional triad is indeed a complex trialectical paradox (See Chapter 4, Section 4.3 for the details of the tensions between authority and autonomy [T1], authority and accountability [T2] and accountability and autonomy [T3]).

W. K. Smith and Lewis (2011) conceptualised four interactive categories of organisational paradoxes: *organising*, *performing*, *belonging*, and *learning* paradoxes. The tensional triad of the TSC echoes with these paradoxes which will be discussed next.

*Organising paradoxes* consist of tensions between competing designs and processes to achieve a desired outcome (W. K. Smith & Lewis, 2011). For example, tensions between collaboration and competition, empowerment and direction or routine and change. Organising paradoxes constitute to the tensional triad because tensions exist between centralisation and

decentralisation of authority, or "centralised decentralisation" (Toh, Jamaludin, Hung, & Chua, 2014).

Participants from School I, K, L, M, O and P mentioned the tensions between collaboration and competition. For example, Kato (the vice principal of School K) said, *"it was difficult for the schools to find sister schools (a criterion for obtaining subsequent Gold Award in the HKHSA Scheme) because of same-district between-schools competition for reputation and student enrolment*". Mary (the teacher from School M) said, *"we once partnered with another primary schools and achieved excellent impact in our community. However, it was difficult to partner with other schools when we want to expand the impact, because the competition issue arose"*. Leo adopted HPS as managerial strategy for the school, but also mentioned that it was difficult to persuade other schools (run by the same SSB in other districts) to implement HPS *not* because of "same-district between-schools competition", but because of the "internal competition" (same SSB) for school uniqueness. Ole (the principal of School O) admitted that the success of School I as an HPS contribute to the "same district between-schools competition" alongside with academic performance of students and school ethos, while Ivana (the teacher of School I) said, *"we continue to strike*

*for excellence in HPS because this is our school brand in the district now."*

The tension between centralisation and decentralisation in the process of HPS accreditation is similar to that of the SMI, resulting in "centralised decentralisation" (Toh et al., 2014; Zajda, 2015; Zajda et al., 2005). Participating schools sometimes sacrificed their autonomy in deciding health promotion activities for the sake of meeting the accreditation criteria. For example, Ann (the school nurse of School A) said,

> *"It was unfair to just count new programmes in the criteria. There are some old programmes which are worthy to keep, such as weight management for overweight students. I am not sure whether the accreditation criteria changed now, but I implemented a new programme next year in order to apply for the award."*

Another example is the "student council" in School K. Student participation is emphasised in the HPS principle(Warne, Snyder, & Gillander Gådin, 2013), but it challenged the school-student power relations (Y. W.Leung, Yuen, Y. C. Cheng, & Chow,

2014; Y. W.Leung, Yuen, Cheng, & Guo, 2016; M.-Y.Wong, 2016). While the students of School K were allowed to propose plans and suggests to teachers and principals, Kato (the vice principal of School K) admitted that, *"you know, we cannot allow students to make the decision. The decision power still lies in the school. However, at least, the student council is a kind of training"*. Organisational paradoxes are evidenced in both education (Y. W. Leung et al., 2014, 2016) and school health promotion literature (Griebler & Nowak, 2012; Warne et al., 2013).

Organising paradoxes require organisational routines to be flexible and multiple purposes (W. K. Smith & Lewis, 2011) and thus the TSC allow this flexibility and support the multidisciplinary efforts in implementing HPS. Organising paradoxes also concern the tensions between more distributed approaches of leadership and more autocratic leadership—the tensions between authority and autonomy [T1] (Watson, 2013).

*Performing paradoxes* stem from the plurality of stakeholders, such as SSBs, principals, teachers, social workers, and school nurses. When stakeholders' goals differ, strategies to achieve the competing goals give rise to tensions such as personal growth and development goals, academic and examination goals,

and management goals. The “triple bottom line” (MacDonald, 2009) of schools (e.g. fiscal, academic and intangible core [i.e. everything outside academic, such as moral, citizenship and global education]) is facing challenges that further intensify the tensions when HPS is introduced. Thus, the tensional triad indeed reflects the tensions in meeting the triple bottom line of schools under the further influence of SMI.

In particular, organisational performance depends on integrated actions of all school members, but teachers’ professionalism (autonomy) is constrained in the government-driven curriculum (authority), producing tensions around accountability [T2 and T3] and, in turns, hindered integrated actions and organisational change (Watson, 2013).

*Learning paradoxes* concern the renewal and sustainability of an organisation—for one to sustain one must learn and renew. “These efforts involve building upon, as well as destroying, the past to create the future.” (W. K. Smith & Lewis, 2011, p. 383). A new school development direction may need to abandon existing practices and cultures. For example, Candy (the school nurse of School C) reported, *“the third principal maintain the HPS direction set by the second principal, thus we were accredited as*

*an HPS... Until the fifth principal applied another direction, that many of our school members resist the change".* The learning paradoxes are often implied in staff turnover issue.

The tensions between episodic and continuous change characterise the learning paradoxes through the process of un-learning and re-learning such as the adaptation processes in SMI and HPS. However, how much organisational knowledge a school unlearn to learn new knowledge remains a question or a tension to be balanced. As such, the tensional triad represents the tensions of autonomy as the teacher profession and the schools are struggling in learning to be (becoming) an HPS. Redefining the goals in education and management (authority) to embrace HPS may be, however, an important process of unlearning by the autonomous yet accountable stakeholders [T1, T2 and T3].

*Belonging paradoxes* arise in the tensions of identity. Identities exist and belong to individuals and groups which seek unity and distinction, coexisting but sometime conflicting. Tensions arise from role conflicts among identities. In addition, tensions of identity exist across multiple organisational levels. In other words, one may identify himself/herself well at one level, but may identify himself/herself poorly at another level.

For example, teachers may identify well with their professional self in classroom teaching, but may reported that it is contradictory (role ambiguities) in acting as an administrator and manager under SMI (Watson, 2013). Similarly, role ambiguities may present when teachers act as an authoritative, disciplinary figure and educator to students; and as a caring, friendly councillor or health promoter. Ivana (the teacher of School I) said, *"it is very odd for being very serious and strict to the students in the classroom, and later being nice to advice students to eat healthily during recesses kindly and tenderly. We have to maintain our image as an unchallengeable teacher"*. Ole (the principal of School O) said, *"it is not convincing that a teacher teach health or role-model healthy living, because the students think that we are not doctors or nurses"*. Principals and teachers from normal schools of the study, therefore, welcomed the idea of having a stationing school nurse service.

School nurses, being less involved in student disciplinary issue, may encounter less belonging paradoxes at the level of interaction with students in population-based and high-risk targeted-based health promotion (E. Maughan, 2003) as evidenced by the participants of the current study. For example, Ann (the

school nurse of School A) was authoritative among staff in managing students' health issues (a common practice in special schools: School A, B, C, D, F, G, and H). Ann also said that *"I am autonomous in what I am doing, and of course accountable for being the sole healthcare professional in the school, granted by the complete trust from my principal"*. In addition, Ann said *"I am the only healthcare professional in the school, the teachers and staff know this… they always seek my advice on administrative issues that involve health concern. For example, they will ask me for permission of candies and soft drinks in Christmas party*". Therefore, school nurses are relatively more authoritative, autonomous and accountable in health-related matters of students when school members (and also parents) adequately acknowledge the professional role and legal liability of school nurses (see Solum & Schaffer, 2003), at least in special schools of the study.

However, all school nurse participants (from special schools only) also reported that they felt lonely being the sole healthcare professional working in schools. The perception of professional under-valued have been recognised by literature, by both their nursing peers who were not school nurses (Croghan, Johnson, & Aveyard, 2004) and by themselves (Morberg, Dellve,

Karlsson, & Lagerström, 2006). Zimmerman, Wagoner and Kelly (1996) found that school nurses experienced role ambiguity between schools' expectations and their professional role owing to the unclear expectations of their role by the nurse practice act and by the school board. In other words, belonging paradoxes could still exist among school nurses at the political level, especially where mutual understanding and valuing of school nurses' professional role is lacking (Morberg, Lagerström, & Dellve, 2009).

Belonging paradoxes concerns unity of identity, or identification of organisational identity, that is the coherence of the values between the organisation and its members (Watson, 2013). Organisational identity is essential in collective change efforts, but less identification may generate more possibilities for change outside the organisation's status quo. Therefore, the dissonance of identify of teachers, school nurses and the schools offer opportunities for change and improvement in policies, practices and cultures. Belonging paradoxes are relevant to the tensions among authority, autonomy and accountability [T1, T2 and T3] that construction and maintenance of an authentic self enables individuals to conform to organisational norm so that possibilities of future changes increase.

Therefore, the tensional triad captures in essence these organisational paradoxes in schools under the current influence of SMI. As Poole and Van De Ven (1988) suggested, “theories are not statements of some ultimate ‘truth’ but rather are alternative cuts of a multifaceted reality” (p. 563), the tensional triad hence presents an alternative perspective of these paradoxes interacting complexly under the influence of SMI.

## 5.5 TSC as Integrated Responses to Organisational Paradoxes

As described above, the tensional triad of the study is the representation of organisational paradoxes. For organisations to change positively, such as to become an HPS, school members have to *firstly* cope with the organisational paradoxes (Cameron, 2008; W. K.Smith & Lewis, 2011). However, these paradoxes are more often sources of organisational paralysis, thus organisational changes are usually difficult (Luscher, Lewis, & Ingram, 2006; Van deVen, 2005; Watson, 2013).

In the following subsections, different coping strategies (responses) to organisational paradoxes, which the TSC attempts to integrate, will be discussed. In particular, Poole and Van De Ven

(1989) proposed four responses to organisational paradoxes (that constitute to the interlock arrangement of TSC): (1) *accepting paradoxes and live with them*, (2) *spatial separation*, (3) *temporal separation* and (4) *synthesis.* These responses are further developed by W. K. Smith and Lewis (2011) into a "Dynamic Equilibrium Model of Organizing".

**5.5.1 Accepting paradoxes and live with them.** According to Poole and Van De Ven (1989) and W. K. Smith and Lewis (2011), acceptance requires school members involving in organisational change (change agents or leaders) (e.g. principals, teachers, school nurses, HPS coordinators, and so on) to scrutinise the assumptions underlying the tensions, adopt non-linear logic and accept that paradoxes may be unsolvable, such as the tensional triad. (Therefore, the tensional triad is shown as the foundation of the TSC [Figure 5]). Change agents, including school nurses, may utilise the TSC as a reminder that organisational paradoxes exist all the time in schools, unless the current accountability framework (SMI) and education systems are changed (Waters, 2012). Therefore, the researcher argued that the concept of tensional triad

serves as a starting point for school nurses to understand tensions and paradoxes in their workplace

**5.5.2 Spatial separation.** This strategy, also known as level distinction, suggests change agents to handle different tensions at different levels of the organisation (Poole & Van De Ven, 1989; Watson, 2013). For example, *Triangulating tensions* targets at political-macro level, *Strategising* focuses on the school management level, *Empowering leadership* concerns the team level and *Cultivating* gravitates towards internalisation at individual level (see Table 7 in Chapter Four). However, change agents need to accept the difficulties in adopting spatial separation. For example, since the tensional triad exists at multiple levels and that school members possess different roles at these levels, thus role-ambiguities may arise in the change agents (belonging paradoxes). The interactive nature of school systems implies that any “single move” will inevitably trigger multiple tensions at the same time. The blurring of boundaries or levels makes spatial separation more difficult (Putnam, Fairhurst, & Banghart, 2016) (Thus, the TSC suggests school to adopt all coping strategies simultaneously across all levels). Hence, it is also important for school nurses to

understand their professional function in relation to spatial separation (level distinction) that their roles are unique. School nurses should be clear about their roles (R. L. T. Lee, 2009).

**5.5.3 Temporal separation**. It proposes that change agents to handle a tension during one time, and the other during a different time period (Poole & Van De Ven, 1989; Watson, 2013). Therefore, a change agent may apply the coping strategies at any level at different time periods, such as different time points within the same academic year, across the development planning and evaluation cycles of SMI, or at specific time points of HPS accreditations cycles.

This strategy echoes with *pacing* and *trending* in the TSC that concern time component. For example, participating schools set and fulfilled certain goals and objectives in the first academic year (within the 3-year development cycle), and fulfilled others in the next and final academic years according to their schedules (pacing). Participating schools also acted upon the trends of needs, including emerging students' health and education needs, parents' various needs on students' academic achievement and whole-person development

Similarly to spatial separation, the boundary of time is not always clear. Nor any artificial timeframe (such as the 3-year school development cycle and periodical external school review) can guarantee "successful" changes. School nurses, therefore, need to adopt a wide scope of planning and implementation of sustainable health promotion and health education strategies, and to continuously evaluate programme outcomes. In order to do so, school nurse has to on one hand be persistence with long term health promotion intervention, on the other hand sensitive to emerging needs of students and schools, so as to generate more innovations in health promotion and health education.

The 3-D model of TSC represents the acceptance of organisational paradoxes (the tensional triad triangular base of the outer SC-pyramid), as well as the interweaving coping strategies (the interlocking pattern of the two pyramids in the 3-D model of TSC).

**5.5.4 Synthesis/synergy.** It refers to the generation of new concept(s) from existing tensions and paradoxes for resolution (Poole & Van De Ven, 1989; Watson, 2013) To understand synthesis of paradoxes, the decision makers need to distinguish

from the logic of dialectics that it is the foundation of paradoxical logic.

In the logic of dialectics, resolution to tensions requires the unities of tensions that continue to work at each other until one dominates (increase in quantity of it) and that a new quality emerges from the original tensions (Ford & Ford, 1994; Putnam et al., 2016). In other words, the logic of dialectics requires the decision makers to focus on either one side of the tensions (thesis) and negate the other (antithesis). In fact, the previous spatial and temporal separations are based on the logic of dialectics that focus on a particular side of the opposite tension at a particular level of structure or time. These two responses are useful in ensuring short-term benefits for organisational (W. K. Smith & Lewis, 2011), but may lose synergetic effects from simultaneously applying all coping strategies across all levels (Bledow, Frese, Anderson, Erez, & Farr, 2009) as advocated by the TSC.

In contrast, paradoxical logic involves multiple tensions, but it does not require the decision makers to negate any of them. In paradoxical logic, tensions need each other to sustain their present (W. K. Smith & Lewis, 2011). For example, in the TSC, school authority (centralisation) and teacher autonomy

(decentralisation) are contradictory concepts in which accountability emerges to balance them, resulting in the synthesis of "centralised decentralisation" (Toh et al., 2014). A similar example appears in the process of educational reforms that the government on the one hand allows school autonomy in utilisation of fiscal resource; on the other hand the government is the major source of educational funding. The (public) schools continue to receive financial aids as long as they fulfilled the accountability framework (SMI). Notably, accountability interacts with its "parents" (authority and autonomy), leading to the interdependency of them (Hargrave & Van de Ven, 2017)—paradoxes in triad.

Before any synthesis or synergy presents, the priority step returns to acceptance—to live and to cope with the paradoxes—as described previously (Lushcer & Lewis, 2008; W. K. Smith & Lewis, 2011). As W. K. Smith and Lewis suggested, "resolution does not imply eliminating a tension but, rather, finding a means of meeting competing demands or considering divergent ideas simultaneously." (p. 386) Therefore, the TSC suggests that schools members, health promoters or change agents to accept the tensional triad as the first and foremost step before implementation of any changes. Again, the concept of tensional triad serves as a starting

point for school nurses to understand tensions and paradoxes in their workplace

Another example of synthesis/synergy in responding to organisational paradoxes is the *Process Model for Discursive Construction of Tensional Knots, Opposite Logics, and Justifications for Innovative (In)action* theorised by Sheep, Firhurst and Khazanchi (2017). In their model, Sheep et al. (2017) first co-constructed "tensional knots" with the organisation members through discursive construction—a synergetic response to multiple organisational paradoxes. "Tensional knots" are defined as "tensions that mutually impact one another in either *prismatic (amplifying) or anti-prismatic (mitigating) ways* [emphasis added]." (Sheep et al., 2017, p. 469) They then theorised that if organisation members adopted either/or thinking towards tensional knots, tensions became prismatic, leading to the tendency of positive-to-negative logic which in turns justified innovative inaction (unfavourable). On the contrary, if organisation members adopted both/and thinking towards tensional knots, tensions are anti-prismatic, leading to the tendency of negative-to-positive logic which in turns justified innovative action (favourable).

With their model, Sheep et al. (2017) argued that in order to facilitate innovative actions, researchers and organisational members have to generate new concepts (e.g. their tensional knots). Hence, the tensional triad of TSC echoes with this direction.

**5.5.5 Dynamic equilibrium.** The above-mentioned four strategies (responses) were further theorised by W. K. Smith and Lewis (2011) into an integrative theoretical model, namely "A Dynamic Equilibrium Model of Organising" (DEMO). There are three key features of their model:

1. The persistence of conflicting forces (organisational paradoxes) and the purposeful cyclical responses over time enable *sustainability* of the organisation (dynamic equilibrium).
2. Dynamic equilibrium is maintained by adapting to the constant motion (continuous pull) across organisational paradoxes.
3. The role of organisational leadership is to support and harness the organisational paradoxes, so as to enable organisational sustainability (survival) and even improvement.

The major strategies in Smith's and Lewis's DEMO (2011) in managing tensions for organisational sustainability is to enable virtuous (rather than vicious) cycles: awareness tensions (paradoxes) triggers acceptance instead of defensiveness, entails viewing tensions as an invitation for creativity and opportunity, adopt paradoxical thinking and opened discussion to consider both/and possibilities (see Sheep et al., 2017; W. K.Smith & Lewis, 2011). These strategies require organisational leaders to embrace cognitive and behavioural complexity (the mindset of acceptance of paradoxes, spatial separation, temporal separation, and synthesis/synergy) and emotional equanimity (emotional calm and evenness instead of anxiety and fear in encountering paradoxes). W. K. Smith and Lewis (2011) refer these strategies and leaders' cognitive, behavioural and emotional abilities as "dynamic capabilities" of an organisation (p. 392). Dynamic equilibrium is achieved by *shifting of choices or behaviours* that balance among tensions and between short-term and long-term commitments. W. K. Smith and Lewis (2011) proposed the outcome of DEMO is to foster organisational sustainability.

Therefore, the TSC of the study indeed echoes significantly with the DEMO. For example, when school members streamlined changes through *triangulating tensions*, *strategising*, *empowering* and *cultivating*, they indeed demonstrated cognitive and behavioural complexity. Emotional equanimity was also implied in *desensitising* and *motivating*. While the DEMO focuses on organisational sustainability, the TSC attempts to view the ideas from another (related) perspective: fostering organisational changes through simultaneously applying all coping strategies (categories and properties) across all levels.

Furthermore, while the DEMO asked “how can organisations and their managers effectively engage A and B simultaneously? [where A and B denotes opposite tensions in organisations]” (W. K. Smith & Lewis, 2011, p. 395), the TSC further asks “how can organisations and their stakeholders effectively engage organisational paradoxes simultaneously, and enhance possibility of organisational changes, even though often only coping strategies exist?”

To summarise, responses to organisational paradoxes in many existing research (e.g. acceptance, spatial separation, temporal separation, Sheep et al.’s model and the DEMO) have

suggested that there is no one best way to foster organisational sustainability and changes. The TSC shares this view. The difference between the TSC, and Sheep et al.'s model and the DEMO is: While organisational paradoxes models are commonly constructed upon dualistic opposite tensions, the TSC is constructed upon the trialectical tensional triad (see next section). In particular, W. K. Smith and Lewis (2011) proposed that paradoxical theory can be expanded from duality (opposite tensions) to multiple tensions (i.e. the tensional triad) in order to foster organisational sustainability. In addition, Sheep et al. (2017) suggested that investigation of responses to organisational paradoxes needs to advance to the team or organisational level. The TSC, therefore, attempts to integrate these existing responses.

Last but not least, school nurses (and other health promoters in school setting) would need to be sensitise to decision-making logics that may cause tensions to the implementation of change. It is argued that the more flexible of decision-making process, the higher chance for schools to identify innovative ways of promoting organisational changes.

### 5.6 Trialectics—Beyond Dialectical and Paradoxical Logics in Explaining Organisational Changes

It has been suggested that theories of paradox are in themselves complex and that changes may not easily occurs, nor could paradoxes be eliminated (Poole & Van DeVen, 1989; W. K.Smith, Erez, Jarvenpaa, Lewis, & Tracey, 2017). This situation explains "why managers often can only cope with rather than try to resolve Organisational contradictions" (Hargrave & Van deVen, 2017, p. 334). This constraint is possibly due to the dualistic focus of tensions (Ford & Ford, 1994; W. K.Smith et al., 2017)

Another perspective of logic could complement the paradoxical logic (W. K. Smith et al., 2017), such as the logic of trialectics (Ford & Ford, 1994, 1995). Trialectics does not abandon formal, dialectical and paradoxical logics, but embraces and complement them. The tensional triad describes tensions beyond polarities and the TSC attempts to incorporate the logic of trialectics.

According to Ford and Ford (1994, 1995), trialectics is a logic of attraction which adopts the logic of *possibility*—change occurs when the entity (individuals or groups) possessing a certain status is attracted to a *future* status. At any current status of the

entity, tensions still occur (such as the tensional triad), but that the *future* status creates a conceptual third space—possibility—to the current situation, hence this logic is called trialectics.

The considerations of whether tensions are solvable (i.e. either/or dialectical thinking that requires school members to choose between conflicting options, such as being an HPS or not), and how to cope with the tensions (i.e. both/and paradoxical thinking that requires to school members to live with paradoxes) are still valid, but not the main focus in trialectics (Ford & Ford, 1994; Putnam et al., 2016; W. K.Smith et al., 2017). Rather, *apparent* changes occur when the *future* status is sufficiently attractive to the entity. Trialectics thus assumes that the entity welcomes changes towards their desired directions that attract them (Ford & Ford, 1994). For example, when school members in the study were highly attracted to the idea of HPS, they were committed in working towards the HPS direction. The *seemingly* resistance to change represents that not every member of schools is attracted to the idea of HPS.

In fact, being an HPS is only one of the possibilities of change, or the *material manifestation points [MMPs]* in trialectics (Ford & Ford, 1994) that are defined as states of an ever-changing,

open system at a particular time which are identifiable or appear to be relatively static, fixed, permanent entities, occurrences, or phenomena (Ford & Ford, 1994).

For example, a school is a relatively permanent organisation; the tensional triad is a relatively static phenomenon of schools; the accreditation of HPS is also a relatively evaluation (occurrence) of the school at a particular time (e.g. time of accreditation). In other words, being an HPS is a MMP of the schools, but this will soon change to another MMP that may/may not be regarded as an HPS (e.g. being awarded again as an HPS. In trialectics, changes are known as *mutations* or *quantum jump.*

With a certain MMP, the organisational system is in equilibrium, such as that theorised in W. K. Smith's and Lewis's DEMO (Section 5.5.5). The TSC embraces and attempts to advance the theorising of the DEMO that focuses on organisational (survival) sustainability, through the concept of mutation in trialectics that emphasises on creating a third space/possibility/attractive future MMP.

A mutation of MMP involves two independent components: *attractives* and *actives* (Ford and Ford, 1994). An active is regarded as the dynamic equilibrium of the system, and an attractive is the

future MMP. For example, a school (the active MMP) is motivated to become an HPS (the attractive MMP), thus a mutation of MMPs is *possible* because the equilibrium of the school (status quo) is regarded as distorted by the possible potential MMP future state (i.e. the vision of HPS). However, the school may also be attracted other MMP, such as to become a prestigious school in the district. In trialectics, mutation is a must, just that the direction is categorised as either ascendant (towards higher complexity, lower restriction, more harmonious and more integrity) or descendant (towards lower complexity, higher restriction, less harmonious and less integrity) (Ford & Ford, 1994).

As such, the TSC represents an ascendant mutation because the coping strategies aim to lessen the tensional triad. Notably, the "arrowed-S" ( $\int$ ) (Figure 5) represents the idea of "possibility" of mutation:

> [Trialectics] proposes that the attraction to any particular future is simply one possibility, not the only one, and that other possibilities are attractive to different people. The challenges, therefore, are to create a future point that is attractive to people and to explore ways in which they can

> contribute (functions) to the fulfilment of that future. (Ford & Ford, 1994, p. 781).

Therefore, the TSC only enhances the possibility, but not guarantee change. The 3-D pyramid of TSC (Figure 5) represents different potential MMPs that schools are and are not attracted to, including HPS.

However, the trialectical 3-D model of TSC in representing school organisational changes also explains why schools “failed” to become and/or sustain as an HPS: Very often efforts of change do not point solely to a single attractive status even though schools have adopted all necessary coping strategies that are supposed to facilitate changes. In particular, the greatest attractive status of schools still lies in meeting the accountability framework (SMI) that, reciprocally, gives rise to the tensional triad (i.e. more restriction), favouring descending mutation.

Finally, being informed by trialectics, the TSC invites creativity and generations of new possibilities of change:

> In trialectics, we, as observers or change agents, are free to create and alter the result, what is active and attractive, and what function will relate them to each other, thereby

> making a variety of changes possible. In this respect, trialectics makes it possible for us to create different possibilities and relationships and to explore their implications rather than getting others to somehow accept our views. What limits us is not the inherent structure of things (a dialectical and formal logic view), but our ability to create and generate. (Ford & Ford, 1994, p. 776)

Therefore, in order to create better opportunities for schools to become a health-promoting institution, the researcher would like to propose a new vision of allowing healthcare professionals to lead school health promotion. In particular, the provision of stationing school nurse service seems to be promising in offering a new attractive MMP to schools. This new strategy will not abolish the tensional triad, but divert it by drawing on the insights from another grounded theory done with school nurses: Morberg's, Dellve's, Karlsson's and Lagerström's (2006) "constructed space and legitimacy for health work in the education system," which will be briefly discussed next.

## 5.7 Bourdieu's Capital, Habitus and Field and Tensional Triad

Morberg, Dellve, Karlsson and Lagerström theorised a grounded theory from a group of school nurses (Morberg et al., 2006). Their theorisation shares a common trajectory of discovery in the current study: the issue of school nurses working in the educational system is comparable to the introduction of health sector initiatives (e.g. WHO HPS framework) in schools. Morberg et al. (2006) concluded that school nurses is critical in health promotion at schools and in strengthening the school nursing profession, and that health promotion for students is in line with educational goal in Sweden.

Bourdieu's concept of *capital* and *habitus,* as adopted and explained by Morberg and colleagues (Morberg et al., 2006; Morberg, Lagerström, & Dellve, 2012), highly coherent with the concept of tensional triad in the TSC. Morberg and colleagues stated:

> Capital refers to resources of either a real or a symbolic character, related to specific fields or arenas in which a form of capital is utilised. Capital means power and can be described as resources that are useful for power. The

> capital or power is used to control things, institutions or persons.
>
> The four basic forms of capital are economic capital, symbolic capital, social capital and cultural capital. The concept of economic capital, i.e. money, refers to capital of real character. Symbolic capital refers to knowledge, titles or, for example, the power of a famous family name, and consists of grounded attributes that are valuable to different groups. Social capital includes social position or the advantages of connections in networks or membership in social groups. Cultural capital refers to the legitimated and dominating culture in a society; through an incorporating process of economic resources, education and cultivation, cultural capital can be used to generate privilege for certain groups. (Morberg et al., 2012, p. 356)

Therefore, the school nurses are the capital, mainly a symbolic one, that they possess professional knowledge and skills, the official title, professional image, high availability (open-door policy) in comparisons to teachers focusing on teaching and principal focusing on management, as well as the trust in teachers,

parents and students which contribute as a “health authority” at schools. This *symbolic capital* inherent in the position of school nurses as the only health expert in school thus also grants a great deal of autonomy in health-related decisions in schools (Biag, Srivastava, Landau, & Rodriguez, 2015; Howard-Drake & Halliday, 2016; S. G.Smith & Firmin, 2009).

School nurses may also possess other forms of capital. For example, school nurses may be an *economic capital* when the provision of service is directly related to additional funding allocated to schools, such as in Hong Kong special schools, school nurse is an official special staff of manpower structure. School nurses may be *a social capital* because they possess social networks or membership in the health sector, including health service providers, government and non-government organisations and health professional associations. The *cultural capital* of school nurses could be increased when the societal cultures demand further advancement in safeguarding school children’s health and favour the provision of stationing school nurses, as well as the nursing profession favours the specialisation of the advanced practice of school nursing (see Popovici, 2012). The societal trends of increasing health concerns among students may also contribute

to the cultural capital of school nurses (Morberg et al., 2006). Therefore, Bourdieu's concept of capital is related to the inherent authority, autonomy and accountability of school nurses. The tensional triad could be understood by relating to the concept of *habitus*.

The concept of *habitus*, being closely related to the concept of capital, refers to "the mental or cognitive structures through which people deal with the social world" (Ritzer, 2011, p. 530-531), and in the perspective of teaching profession, the "competencies gained from upbringing, experiences and schooling" (Morberg et al., 2012, p.356). Similarly, school nurses acquire habitus from their professional trainings, practices and experiences—products of history and the product of the internalisation of the structures of the social world (Ritzer, 2011). Principals, teachers, students and parents also acquired individual habitus in relation (and interaction) to histories and structures of education.

The relatively constant or stable nature of habitus is due to the deeply rooted attitudes and values in the individual's experience and history. In the current study, teacher and principal participants claimed that they lacked confidence in leading health promotion and health education because of their education-oriented

professional training, while school nurses (in special schools) are the responsible experts taking care of the students. Therefore, the habitus (competence) of school nurses enhance the legitimacy of leading health promotion and health education in school setting, thus lessening the tensions among authority, autonomy and accountability of teachers and other staffs, that is the concept of *field.*

As explained by Morberg and colleagues:

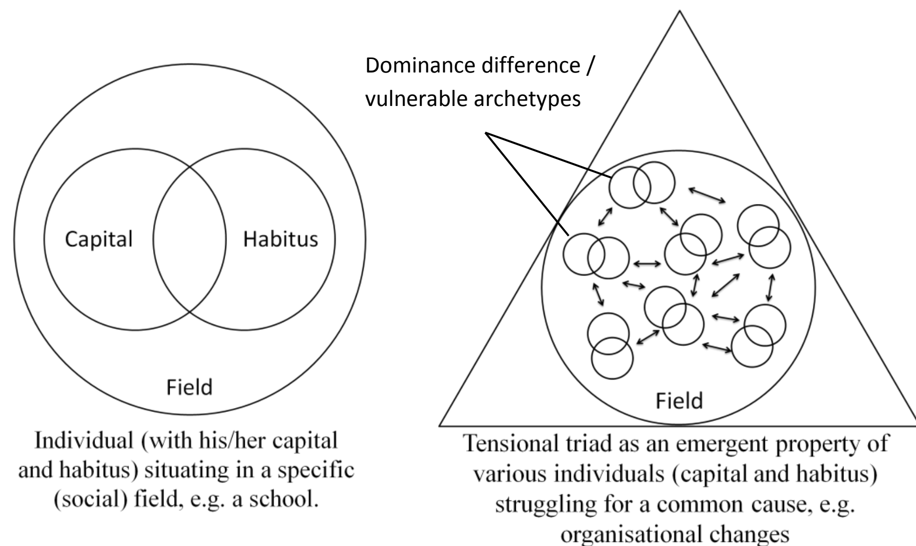
> The concept of field in Bourdieu's research refers to the study of *dominance differences* [emphasis added] between individuals or professional groups and is used to describe the situations in which groups with some autonomy have something in common. The field refers to *relationships in the social space and has its own structure and forces* [emphasis added]. A social field is defined by Bourdieu as: *"a system of relations between positions of special agents and institutions who struggle for a common cause"* [emphasis added]. In a specific field, there are people with different capital [symbolic, economic, social and cultural], or some people who have capital and others who do not. The capital operates in the

> field, but the general mechanism is that c*apital and habitus are forces in different specific social fields* [emphasis added]. (Morberg et al., 2012, p. 356)

Therefore, the school is a social field with its own structure (positional hierarchy), forces (such as the ecological systems of school) and common cause (education) in which different school members (and thus relationships) possess different capital to various extents. For example, Olivia (the clerk of School O) possessed the least capital relative to the teachers and the principal—the vulnerable archetypes. These interrelated concepts of capital, habitus and field support the conceptualisations of the tensional triad: The tensional triad is the emergent properties (emergent force) from the school structure as a social complex adaptive system consisting of special agents or positions (school members) interacting in organisational changes. In addition, the vulnerable archetypes (authority vulnerable, autonomy vulnerable and accountability vulnerable) could be understood as the "dominance differences" (Morberg et al., 2012, p. 356) which are the product of interactions among the individuals and their capital and habitus in the field (e.g. school) (Figure 8).

Figure 8

The conceptualisation relationship between tensional triad and Bourdieu's concepts of capital, habitus and field.




To summarise, the above discussions on Bourdieu's concepts of capital, habitus and field support the conceptualisation of tensional triad and supplement the theoretical ground, with trialectics that proposes the creation of possible future (attractive MMP), for the potential of healthcare professionals (such as school nurses) in lessening the tensional triad and streamlining organisational changes.

### 5.8 The Potential of School Nurses in Lessening the Tensional Triad

Theoretical sampling of the current study yielded the TSC theorising organisation changes that have been led mainly by the educational sector. The role of school nurses in leading these changes (e.g. SMI) is auxiliary despite the significant influence of Ann (school nurse) in health promotion and health education at School A (special schools). However, the potential of school nursing should not be omitted because of the theoretical grounded in Bourdieu’s concepts of capital and habitus discussed above, and the frequent requests of the principal and teacher participants for a healthcare professional in leading health promotion and health education at schools.

There are around one hundred school nurses working in special (60 run the government) and international schools (around 40 run by private SBBs) which provide primary and secondary education in Hong Kong with various nurse to student ratios (such as 1:200 in special schools and 1:600–1,200 in international schools) (EDB, 2016c; R. L. T. Lee, 2011; “School of Nursing advocates”, 2011). Some kindergartens (all are privately run) also hire school nurses. Currently, school nurses being appointed as

specialist staff in public special schools as required by the education Code of Aid (EDB, 2016). In the case of normal public schools, however, it has been a low priority of the government to consent on the provision of stationing school nurse service in the public sector (Information Services Department, 2008).

In general, children's health issues at schools are taking care by referrals to services offered by the DH, the HA and the Social Welfare Department. For example, kindergarten teachers are suggested to refer children with physical, developmental, behavioural, and/or learning problems to Maternal and Child Health Centres, while children with family issues to Integrated Family Service Centres or Integrated Services Centres. Student Health Service Centres of the DH offer visits to schools to provide vaccinations for children and to inspect environmental hygiene and sanitary facilities which are regulated under the Education Ordinance.

Currently, schools personnel in normal schools are required to take first aid treatments, crisis management and emergency measures (EDB, 2016). For example, at least two teachers are required to be trained in administering first aid in every school, the establishment of crisis management team and regular drills,

planning and trainings (EDB, 2016). However, the role of school nurses has been emphasised for their irreplaceable importance in delivering proactive health promotion besides preventive and remedial measures to students and staff, yet evidence are mainly confine to overseas research in the US, Europe, Canada and Australia (R. L. T. Lee, 2011; Maughan, 2003).

**5.8.1 Provision of stationing school nurse services may lessen the tensional triad.** Owing to the accountability framework, teachers of local schools are responsible to monitor, report and refer students' ill health which is not the expertise of educators. While the referral and crisis management systems should be in place regardless the existence of a stationing school nurse, teachers' increased accountability outside of teaching and education, or in terms of administration and management, obstruct their educational autonomy and efficiency in not only teaching, but also in addressing students' health needs and delivering health services to the students (R. L. T. Lee, 2011). Clearly, fragmentation of services (in education and in health care) is counter-productive to the whole-school approach as advocated in the HPS. In addition, school nurses could participate in School Health and Safety

Committee and lead or advice on the formulation and monitoring of school health policy. Therefore, the provision of stationing school nurse service may bridge and enhance collaboration between education and health sectors.

The presence of school nurse may also indirectly enhance teaching efficiency owing to lessening the burden of teachers in scarifying teaching hours for taking care of students' health issues. For example, school nurse could identify potential playground injuries to ensure a healthy and safe school environment for students to play (Hudson, Olsen, & Thompson, 2008).

Baisch, Lundeen, and Murphy (2011) found that the presence of school nurses in school health teams saved school staff of 13 hours per day spent in dealing with students' health issues which could be utilised in teaching and learning; and that teaching time lost decreased from around 24 minutes to around 8 minutes per day per teacher at the participating school. Baisch et al. (2011) also found that school with nurses provide more complete and accurate emergency records of students, better fulfilling school accountability in management. In other studies, the presence of school nurses served to reduce students' early dismissals and

unnecessary referrals deal to sickness (Weismuller, Grasska, Alexander, White, & Kramer, 2007; Wyman, 2005).

Biag, Srivastava, Landau and Rodriguez (2015) and Hill and Hollis (2012) found that teachers spent less time on student health issues, more time spent on teaching, increased confidence that students with chronic illnesses were safer at schools. In addition, Schroeder, Travers and Smaldone's (2016) systematic review concluded school nurses may be beneficial in implementation of sustainable interventions for reducing childhood overweight and obesity.

These benefits of school nurse presence indirectly ensure longer learning time in classroom, in turns fulfilling goals in education and school management. In addition, in Hill's and Hollis' (2012) study:

> Comments such as "teachers are asked to perform tasks that only an RN (registered nurse) is allowed to do in the real world. Practicing medical assistance is not the role of a teacher" and "I think it is an imperative liability issue that we don't have a full time school nurse on campus" illustrate their concerns. (p. 185)

Teacher autonomy and professionalism was at stake under the current accountability framework such as the SMI in Hong Kong. The above overseas studies supported that the presence of school nurses indeed address the main concerns of teachers and principals—the accountability issues. Principals of schools, such as those participated in Howard-Drake and Halliday's study (2016) also expressed that the limited internal capacity, resources and autonomy of schools in conducting health promotion required external partners (including school nurses) to fill the gap of "credible role models" (Howard-Drake & Halliday, 2016, p. 48). Similarly, teachers participated in Biag et al.'s study expressed the importance of having a full-time school nurse at schools:

> All schools need a credentialed school nurse. It is in the best interest of the students to have someone who is educated and truly knowledgeable about their health issues. We don't always need a Band-Aid. We need someone to help with the *larger issues* [emphasis added]. (Biag et al., 2015, p. 189)

Therefore, school nurses could alleviate the mismatch of teachers' profession in student health issues, as supported by Bourdieu's concepts of capital, habitus and field, that is *balancing*.

Balancing (a property of *Triangulating tensions*) consists of positional balancing and political balancing. Since there are dominance differences in the field, when a proposed change challenges the individuals' capital and habitus, the individuals tend to maintain or regain their legitimacy of certain task in the field. This adjustment of the disturbed capital and habitus could be done by positional balancing and political balancing. As hypothesised in positional balancing: finding a person whose position and status is professionally legitimate, autonomous and accountable lessens the resistance of change. This legitimate person possess the necessary capital and habitus for the common cause: streamline changes. As discussed by Morberg et al. (2012), the capital and habitus of school nurses differ from the majority of the teaching profession and management which would fill the gap of qualifications, that is legitimacy, if schools had to handle the wider medical concerns, prevention and promotion in physical and mental health (F. Smith, 2017) (cf. *political balancing* in Section 4.4.1).

## 5.9 School Nurse, Leadership and Positive Deviant in Organisational Change

In an SCAS, such as schools, the concepts and practices of management and leadership exist simultaneously and that they implies each other's existence traditionally (Mant, 2010). In educational context, management and leadership are often used interchangeably (Normore & Brooks, 2014).

The former is more related to principal-ship that concerns the top-down approach and positional authority in dealing with *internal* operations, while the later is more related to the notion of whole-school approach that involves *also* bottom-up *influence* and *both* formal and informal *leaders* (rather than *managers*) regardless of their positions(Edwards, Schedlitzki, Turnbull, & Gill, 2015). Leadership concerns more on improvement (future-oriented) while management concerns more on organisational efficiency (now-oriented). Leadership in education concerns more on aims and goals of education while management in education concerns more on school effectiveness (Normore & Brooks, 2014). Therefore, the concept of leadership is more relevant to school nursing practice because school nurses often lead not by position, but the visions, values, goals and attitudes of the profession (Weismuller, Willgerodt, McClanahan, & Helm-Remund, 2015)

School nurse leadership lies in leadership styles emphasising collaboration, flexibility, motivation, empowerment, communication and relationships. These leadership styles blossom in theory, research and practice within education and health sectors (which are also mentioned by the study's participants), including transformational, distributed, shared, situational and paradoxical leadership. The TSC advocates these *Empowering leadership* that echoes the essence of these contemporary leadership styles: the most successful leader in an SCAS is one who leads by not leading as suggested (Ladd, 2009).

The current organisational leadership in schools, as evidenced by the study, consists of a mix of the contemporary and traditional leadership styles. Traditional styles emphasise the control of Organisational environment and transactional leadership targeting on meeting goals and objectives (Aarons, 2006). As the tensional triad illustrates that formal leaders (principals and teachers) are prompt to follow the traditional styles, adopting contemporary leadership styles imposes organisational paradoxes in leading organisational changes. In addition, this tendency hinders schools to acquire sufficient "actives" in order to propel towards a desirable "attractive", in turns preventing schools to

transform to a new MMP (refer so Section 5.4.2). In this regard, school nurse profession provides an opportunity for schools to transform in a new MMP in terms of the leadership culture and practice.

School nurses are highly skilled at communication and developing relationships with students, families, teachers, administrators, health care providers, and community members (R. L. T. Lee, 2011) that makes them an essential formal and informal leaders in places valuing distributed and shared leadership. Professional training of nurses equips school nurses to formulate nursing diagnosis that these diagnostic skills could positively contribute to affect the school environment as suggested in situational leadership that leaders must “develop the necessary diagnostic skills to maximize effectiveness” (Hersey, Blanchard, & Johnson, 2001, p. 171). Together with specific scopes of vision, attitudes, beliefs, knowledge and skills in health education and health promotion, school nurses are excellent transformational leaders who could accommodate the paradox between transactional and transformational leadership in schools (L. Murphy, 2005).

**5.9.1 School nurses as transformational leaders.** In the current study, school nurse participants in special schools are

leaders in their schools in a variety of ways (School A, D, C, D, F, G and H). They are responsible for planning the provision of health care services, developing health care policies, and conducting health education and health promotion programmes (Ann, Betty, Candy, Diana, Fion, Gigi and Helen). They are professional nurses who have acquired a minimum of a bachelor's degree and two of them have acquired master's degree in public health (Diana and Fion).

School nurses, like social workers and teachers, developed relationships with students, their families, and school staff. They also work in multidisciplinary team consisting of physiotherapist, occupational therapists and speech therapists. They also support educational efforts of teachers and even lead classroom health education teaching, such as on the topic of sex and reproductive health (e.g. Ann). They develop relationships with the cafeteria staff and play an essential role in nutritional education and food provider selection to ensure meals meeting the standard of nutrition and safety. School nurses are formal leaders in school buildings' hygiene. The diverse role of the school nurse and the myriad of relationships make them a potential transformational leader for positive Organisational changes.

School nurses as transformational leaders can broaden and elevate the interests of school staff, students, their families and other stakeholders in health (Bass, 1990). They also provide emotional support to the clients (students and staff). The transformational leadership of school nurses could bring a chain reaction (L. Murphy, 2005) to empower others and induce organisational changes. For example, McGuire and Kennerly validated that “transformational nurse leaders promote a higher sense of commitment in their followers” (McGuire & Kennerly, 2006, p. 185).

Transformational leadership of school nurses is useful in whole-school scale health promotion which involves participations of multiple stakeholders. School nurses can “lead without leading” when principals being the highest authority and teachers being the core implementers of organisational changes in schools. In other words, school nurses lessen the accountability burden of teachers in students’ health-related concerns while possesses the necessary professional authority and autonomy, which in turn triangulates the tensional triad in schools.

**5.9.2 School nurses as situational leaders.** Situational leadership focuses on leaders’ abilities in recognizing, interpreting

and reacting to each situation differently (Graeff, 1997; Ladd, 2009). In situations where a team (e.g. a school health team) is less knowledgeable and has lesser abilities, school nurses need to instruct school members what to do, such as in times of first aid situation and infectious diseases outbreaks. These situations happen often in schools' nursing room where students approaches the school nurses for variety of physical, mental and social concerns. In case of initiating new health promotion practices, the school nurse promote (or "sell") the ideas to school members. When others are more competent in handling situations, school nurses may retreat to observation and participation styles, such as having a school meeting. Ideally, school nurses can delegate tasks to competent and independent school members, such as the maintenance of school environmental hygiene. To extend the application of situational leadership, leaders alter their leadership styles, including transformational leadership, depending on different situations (Sims, Faraj, & Yun, 2009) which are common in SCAS such as schools. School nurses, being the role-model in adopting these contemporary leadership styles, are the *internal champions* of schools (see Chapter 4, section 4.5.1, *critical massing*).

**5.9.3 Positive deviant.** School nurses do not have a traditional leadership role within the school setting, but are required to possess all-rounded leadership skills (E. D. Maughan et al., 2016). In addition, their involvements in promoting a healthy school environment and their interactions with a wide variety of school stakeholders make school nurses *positive deviants* in schools (Herington & Van De Fliert, 2017; Ladd, 2009).

Positive deviant (positive deviance approach) (or deviation, c.f. Goode, 1991; Sagarin, 1985) has its roots in sociology (Spreitzer & Sonenshein, 2003) and has been defined as “a practical strategy is about looking for ‘champions’ for change—outliers who succeed against all odds” (Herington & Van De Fliert, 2017, p. 3). The positive deviance strategy assumes that in every community, there are certain individuals (such as school nurses) or groups whose practices enable them to find better solutions to solve persistent problems in the setting than the others whom encounter the same difficulties or obstacles with the same given resource (LeMahieu, Nordstrum, & Gale, 2017).

The tensional triad as a universal phenomenon of schools has become a major obstacle for schools to induce change. School

nurses, having the advantage to exercise leadership conducive to the needs of social complex adaptive systems, possess the potential to lessen the obstacles encountered by teachers and principals in organisational changes.

Being the largest professional group working in schools, teacher professional have developed social norms—shared understandings, patterns and expectations of their roles and practices (Spreitzer & Sonenshein, 2003). These social norms constitute to the tensional triad that organisational changes are difficult to happen. With the understanding of the tensional triad and their leadership potential, school nurses could intentionally taking leadership roles (such as in HPS) that *positively* depart from norms that assume teachers or principals to be the formal leader of change.

Another positive deviant quality of school nurses roots in the educational system: the norms for education and schooling aim to ensure academic performance of students, fulfil the selective mechanism of labour market and achieve cultural and economic reproduction purposes (Chee, 2012; Waters, 2012; Woo, 2013). School health promotion emphasising equity and holism (Rowling & Jeffreys, 2000) counterposes cultures of competition and elitism

(DeLeeuw, 1989; Organisation for Economic Co-operation and Development [OCED], 2005) could be seen as a positive deviant behaviour when the tensional triad is treated as the referent organisational norm.

As suggested by Spreitzer and Sonenshein (2003), any stakeholder' behaviours alleviating the persistence obstacles and benefiting others in the systems could be labelled as honourable, hence positive deviant is an honourable concept that school nurses, for instance, should strike for in order to facilitate health promotion in schools.

Efforts to facilitate positive deviant for school nurses include acquiring power as a leader, developing a sense of meaning, being other-focus, having a sense of self-determination and self-advocacy, and being accountable (Spreitzer & Sonenshein, 2003). These additional efforts seem to be, paradoxically, counter-intuitive to *Streamlining Changes* that advocates the path of the least/to lessen resistance in organisational changes because they may also induce resistance of school nurses. However, positive deviant depends on different referent groups. In other words, the TSC offers a path of lesser resistance to *schools* with the consequence of another change agent—school nurses—taking up

the honourable tasks. In fact, this “sacrifice” is necessary when the HPS advocates mutual understandings of the languages of education and health, and genuine intersectoral collaboration between education and health sectors (St Leger, Young, & Blanchard, 2012).

#### 5.9.4 Paradoxical leadership for school nursing practice.

Ladd (2009) suggested that school nurses have to advocate positional and personal power for themselves. In contrast to the hierarchical understanding that positional power is dominant in principals and teachers, school nurses also possess sufficient positional power to influence school health practices and demonstrate leadership potential owing to their multifaceted role and relationship (Ladd, 2009) and the increasing blurring boundaries of leadership in the social complex adaptive system (Lewis et al., 2014). Being the sole healthcare professional in schools, school nurses sometimes question by themselves their role and value working in schools (Croghan et al., 2004; S. G.Smith & Firmin, 2009). This situation, however, also enhances school nurses’ personal power when their roles and values are understood and recognised by school members and parents, especially when

school nurses demonstrate effective communication and teamwork (Alexandropoulou, 2013; E.Maughan & Adams, 2011).

As such, a paradoxical perspective to leadership is useful in guiding school nursing practice. Paradoxical leadership can be seen as the integration of paradoxical nature of organisation into contemporary leadership styles (such as transformational, situational, distributed, shared, transactional and instructional leadership) that are usually agent-focus rather than structure-focus (Close & Raynor, 2010). Drawing on Smith W. K's and Lewis's (2011) four responses (living with, spatial separation, temporal separation and synthesis) in managing organisational paradoxes (see Section 5.4.1), Lewis and colleagues (2014, p. 60) suggested five paradoxical leadership practices: (1) value paradoxes as vital ingredient of high performance, (2) proactively identify and raise tensions, (3) avoid traps of anxiety and defensiveness, (4) consistently communicate a "both/and vision", and (5) separate efforts to focus on both sides of a paradox (spatial and temporal separations). The TSC and the logic of trialectics also informs school nurse leader to create future vision in school health promotion.

***5.9.4.1 Valuing paradoxes.*** To value paradoxes, school nurses have to understand and appreciate the inevitability of organisational paradoxes in schools (see Section 5.4 for detailed discussion). In order to do so, school nurses also need to adopt a system lens and appreciate schools as social complex adaptive systems (Whitehead, 2006).

The inherent paradox of being the only healthcare professional working in schools (*belonging paradox*) is in fact rooted historically in the dual and even plural understandings of the concept of health, health education and health promotion (De Leeuw, 1989). For example, while health is regarded as a capacity of people rather than an end product to be achieved, the traditional medical model is still prevalence in schools that demands school nurses to focus on the role of providing first aid and administration of medication (Layla, Said, & Salama, 2013).

Health promotion in relation to the *performance paradox* discloses the tendency that students and staff are stressful in pursuit of educational goals, sacrificing physical and mental wellness and ignoring the practice of work-life balance. School nurses, therefore, are in better position in role-modelling healthy lifestyle, in turns

helping schools to cultivate health-promoting ethos and triangulating the *learning paradox*.

Valuing paradoxes also means that school nurses need to accept possible tensions among authority, accountability and autonomy inherent in their professional (Morberg et al., 2006), but at the same time embrace a negative-to-positive attitude (Sheep et al., 2017) to transform paradoxical situations into meaningful actions. For example, Ann (school nurse of School A) embraced the tensions appearing in the school weight management programme. Ann highly recommended the staff in the school tuck shop to minimise selling unhealthy food to the targeted obese students. The principal approved and the tuck shop staff agreed originally. However, other teaching programmes (which trained calculation and life skills) required the staff to sell all available items to the certain classes of student. Despite Ann consented with the teachers to withhold the food-selling restriction, tension between health promotion goals and academic goals (cf. performing paradox) was highlighted. Finally, Ann convinced herself that this settlement still aimed at equipping the students with beneficial skills.

***5.9.4.2 Identifying and raising tensions proactively.*** To proactively identify and raise tensions in schools, school nurses attend school meetings so that they can familiarise with the language and symbols used in education setting. Reading education policy (e.g. the Code of Aid) and school document also helps in familiarising. Raising tensions surrounding an issue in meetings with teachers, principals, parents and other stakeholders is also essential for school nurses to foster mutual understanding and demonstrate a unique leadership role.

The role of “devil’s advocate” (Lewis et al., 2014) is seldom emphasised in previous school health promotion literature (Broussard, 2004; R. L. T.Lee, 2011; S. G.Smith & Firmin, 2009; Wainwright, Thomas, & Jones, 2000), but is essential in paradoxical leadership and streamlining organisational changes. For example, Betty (school nurse of School B) demonstrated the devil advocate role that she talked to the new principal of staff violating the existing school’s healthy eating policy. The staff did not follow the policy and consumed unhealthy food in front of the students. Owing to the priority in building rapport with staff, the new principal designated Betty to reinforce the policy. In other words, devil advocate could triangulate the organising paradoxes.

***5.9.4.3 Avoiding the traps of anxiety and defensiveness.*** Organisation paradoxes could paralyse school nurse leadership, decision-making, experimentation and creativity, which in turns impede the cultivation of a health-promoting ethos. Tensions and stress require early intervention to prevent them from becoming overwhelming, including setting clear boundaries and goals in a project, developing confidence, trust, and risk-taking mindset, and paradoxical thinking. Paradoxically, clearly defining system boundaries is difficult because they are permeable in SCAS (Close & Raynor, 2010). School nurses should facilitate reflective process (such as that in the TSC) by embracing paradoxical thinking and challenging assumptions in existing practices which could be the root cause of any obstacles in change encountered by schools.

Defensiveness towards paradoxical situations could be prevented by developing various leadership qualities that Weismuller and colleagues summarised as the "seven C's of leadership" (Weismuller et al., 2015). A school nurse leader possess authentic *character*, meaning he or she needs to internalise core values of health, know one's priority in life, motives, emotions, strengths and weaknesses, and live out the core values

and morality (such as honesty and trustworthiness) (L. G. Murphy, 2012). *Commitment* of a school nurse leader means that his or her efforts are always dedicated to visions and goals which align with the values and needs of both education and health professions (National Association of School Nurses, 2012). *Connectedness* concerns how school nurses build professional relationship and positively influence others with empathy (Kowalski & Yoder-Wise, 2003). *Compassion* is demonstrated when the leader takes needs and experiences of others into account genuinely (Apker, Propp, Zabava Ford, & Hofmeister, 2006). A *confident* leader is self-assurance and possesses a “can-do” attitude based on trust in and realistic view of his/her own abilities (Weismuller et al., 2015). *Courage* is the willingness to embrace the uncertainty of situation and to deal with possible risk and consequences in paradoxical leadership (Lewis et al., 2014). Last but not least, always excel in developing and performing one’s competence in order to adapt to various contexts constitutes to *capacity* in leadership (Weismuller et al., 2015).

***5.9.4.4 Communicating a “both/and vision”.*** Paradoxical thinking requires one to acknowledge that organisational tensions always exist and that focus on either one side’s needs will

inevitably ignoring the needs on the other side. Hence, embracing paradoxes also means that one has to communicate with others with a "both/and vision" in order to develop a balance between idealistic and pragmatic perspectives (Lewis et al., 2014). For example, a school nurse leader knows that their role does not confine only to medical and physical care of students, but also include a holistic perspective of health and health promotion. Understanding the paradox of health being an end goal and a resource helps stakeholders to appreciate the importance of finding a balance between health/life and achievement/work.

***5.9.4.5 Spatial and temporal separation.*** Embracing the "both/and vision" does not necessarily means that one can handle the paradoxes at the same time. Switching between efforts in meeting competing demands could be done by adopting strategies which target at different levels within SCAS, and/or targeting the paradoxes at different time, such as adopting the competing values framework (Cameron & Quinn, 2011; Lavine, 2014; Linnenluecke & Griffiths, 2010).

***5.9.4.6 Creating future visions in school health promotion.*** The above paradoxical leadership guides school nurses on how to live with organisational paradoxes which is essential for organisational sustainability (Putnam et al., 2016; Sheep et al., 2017; W. K. Smith & Lewis, 2011). With the TSC and the logic of trialectics, school nurse leaders could further create health-promoting future visions in order to attract (Ford & Ford, 1994) school members and other stakeholders to commit in the direction of HPS.

To summarise, school nurses possess the potential of lessening the tensional triad (organisational paradoxes) in schools. Paradoxical leadership could help school nurses to lead health promotion. The provision of stationing school nurse service offers a new potential MMP that could assist schools who are attracted to transform into a health-promoting institution under the SMI.

## 5.10 Limitations of the study

First of all, field observation may not be entirely sufficient in duration and frequency in this study. This might have limited the emergence of findings and the theorising of data. Owing to the tight schedule of schools, the researcher could not observe any

classroom teaching, nor participating in school board meetings frequently. The researcher could only perform site visits and accompanied by the participants. Overall, the study replied mainly on interviewing data. From another perspective, however, prolonged field observation might not guarantee fruitful results. Rather, the generation of grounded theories replies on conceptualisation of data and theoretical sensitivity of the researcher. An important strategy to enhance theoretical sensitivity is to read about other theories, ideally from literature outside of the researcher's expertise (Glaser, 1998) . Furthermore, the researcher's own experience in school health promotion may help to develop theoretical sensitivity and partially supplement the limited field observation.

All the participants in this study came from HPS who regarded themselves as health-promoting institutions. Comparison of their perspectives with those of non-HPS was not achieved as those non-HPS considered as being "unsuccessful" / "non-sustainable" for health promotion did not agree on participation in the study. This might have limited the results and discussions of this study because comparison between "successful" and "non-successful" schools in the ongoing process of organisational

changes could identify differences between the latent patterns and coping strategies to generate more representative findings. Furthermore, it was also difficult to recruit all awarded HPS; only very few of the schools being recruited replied the researchers' invitations through emails and phone-calls.

In summary, it was unrealistic to expect non-HPS schools to welcome interviews, field observations or sharing of their school documents because some of them may regard this kind of investigation too sensitive and embarrassing. In addition, it was also a challenge that schools (both HPS and non-HPS) might find it too political to discuss transparently about issues related to school management and policies.

During the data collection with HPS, the researcher could not access the accreditation system of the HKHSA Scheme for further investigation of the HPS process because the system allowed only the access of scheme-registered schools. Nor, however, the participating HPS of the study agreed to share detailed accreditation criteria and results. This limitation might have prevented further constant comparison and theorising towards the accreditation process of HPS that might be an essential consideration for schools to continue/discontinue in the scheme.

However, it is an ethical decision of not to coerce participants of the study to violate any written or verbal agreement with the accreditation party on non-disclosure of the accreditation criteria.

Owing to the difference in staffing between normal schools and special schools, the HPS coordinators had their role usually assigned for working with school nurses in (and only in) the special schools, and this role could only be taken up by teachers and principals. This difference in expertise and division of labour between teaching staff and school nurses caused tensions in theoretical sampling and research direction. For example, school nurse participants concerned more about health education and health promotion with their role and expertise as the sole healthcare professional in schools. It is possible that investigation in this direction may lead to a theory about the role of school nurse, rather than a theory about organisational changes. These are all possible directions for theoretical sampling in order to generate different grounded theories (Glaser, 1978, 1998) . If so, In addition, the investigation focusing on school nurses might leave out other health promoters, such as teachers and principals from Hong Kong normal schools.

On the other hand, teachers and principals focused on classroom teaching and school management. In general, teachers and principals from public normal schools lacked the experience of working with school nurses. These might have limited the comparability of normal and special schools. Since all participants agreed that HPS was about teamwork and it was a whole-school approach, it was reasonable to adopt a broader, more education-sector-oriented perspective of investigation as did in this study. However, this broader perspective also possesses a disadvantage: How a school nurse performed health education and health promotion in schools—a more health-sector-oriented direction—are less focused in this study. Through theoretical sampling, in nay case, progression of the study guided the researcher to investigate beyond HPS process: from the health sector initiative to the universal organisational change process in education sector, which triggered the series of investigation into the tensions in schools.

Interviews were conducted in both individual and focus group formats that possessed both advantages and challenges in the process of data collection and analysis. The challenges might have limited the results and discussions of the study. For example, individual interviews allowed the participants to express more

freely and thoroughly, yet often yielded prolonged interview and data deviated from original questions. The researcher acknowledged that, on a few occasions, the probing questions might have impacted on participants' responses and subsequent direction of the topics. On the other hand, focus group interviews allowed the researcher to observe interactions of health promoters. The conversation was, however, often dominated by one (and sometime two) participant/s that he or she was the main contributor of the school health team. There were also some occasions that participants hesitate to response on sensitive topics in the group. This challenged the skills of researcher to be a skilful facilitator. In addition, the researcher acknowledged that during the initiate period of this study, he (being a health-sector trained person) might not be sensitive enough to understand the dynamics in the field of education, partially because of the different language and terminology used by teachers and principals. This might also have limited the theoretical sensitivity and related theoretical sampling of the study.

As in other qualitative studies, another limitation of this study is related to the relatively small number of participants. Statistical power, effect size, and generalisation were not the

concern of this grounded theory study. The aim was to develop a substantive theory about schools in the process of implementation of HPS, and that this theory should be readily modifiable when new data suggested the researcher to do so. For example, the opportunities of participating in school board meetings, prolonged field observation in schools, the participations of “unsuccessful” HPS in the study, and the provision of stationing school nurse services can yield new data for constant comparisons.

Besides the difference in staffing between normal schools and specials schools, a prominent characteristic in the participating schools of the study was that they were all from the public sector, and only one secondary school was included. This might have limited the study’s results to the specific characteristics of public primary schools. Nevertheless, it should be noted that public primary and secondary schools share similar resources and constraints predominating the Hong Kong educational context. In addition, from the CGT perspective, the process of constant comparative analysis, theoretical sampling, and data saturation for participants determined the rigour of this study. Tendency of the characteristics of participating schools and participants served the purpose of theoretical sampling which enabled rigour of the study

results and the emergence of a substantive theory relating to phenomenon of the studied field.

Lastly, there were only three parents (1 from School K and 2 from School M) and two students (from School M) participated in the research, yielding comparatively thin data from these groups. Since the WHO HPS framework promotes parent and student participations, they should have been contributing in schools implementing HPS. However, the current practice of HPS and HP in schools suggest that parent and student participations are suboptimal, and often a policy rhetoric and a tokenism in fulfilling school accountability, such as that under SMI in Hong Kong (Y. W. Leung, Yuen, Cheng, & Guo, 2016; S. W. Ng, 2013; S. Ng & Yuen, 2015). While the lack of data from parents and students may contribute to the limitation of study, CGT treats this as an opportunity for constant comparison and modification of theory. Therefore, once more parents and students participate in the future, the researcher would compare additional data to the current TSC and to make necessary modification if the data suggested.

## 5.11 Implications and Recommendations of the study

This study attempted to address knowledge gap in the process of schools becoming, attaining and sustaining as health-promoting institutions. The Theory of Streamlining Changes (TSC) has emerged as an organisational change model that is relevant for organisational changes, including the Health-Promoting Schools (HPS). Implications and recommendations concern both education and nursing that hopefully could foster mutual understanding and intersectoral collaboration between the education and health sectors.

**5.11.1 Implications for policy.** The TSC suggested that in order to streamline organisational changes, a comprehensive health policy is one of the key to initiate and sustain health promotion efforts in schools. The TSC suggested that policy acknowledges the tensions among authority, autonomy and accountability may help stakeholders to embrace organisational paradoxes and the complexity of change. At the school-decision level, each school could formulate a comprehensive school health policy. This school health policy could fulfil the aims and objectives of SMI in the education sector, and coherent with those in the health sector. At the macro level, health policy could embrace the healthy setting

approach (e.g. Health-Promoting Schools) and aim to optimise provision of care, eliminate equity disparities, and enhance holistic development of children (HKPS & HKPF, 2015). This direction of development may help both health and education sectors to realise integrated, multisectoral, and multidisciplinary service systems. The provision of stationing school nurse services in public normal schools may be an important step to bridge education and health.

**5.11.2 Implications for practice.** It is important for health promoters, including healthcare professionals, to understand the complexity of health promotion and education in schools. An understanding of organisational paradoxes and the tensional triad is required before health promoters implementing school-based health promotion programmes. To streamline changes mean that health promotion team in schools needs to consider the multiple goals of education and health.

The provision of stationing school nurse services may help the education system to provide better health education and health promotion to schoolchildren, and to fulfil the duty of care of schoolchildren. Pilot in local public schools may be beneficial to further evaluate the feasibility and refine how schools could

provide better health education and health promotion to schoolchildren.

Current school nurses in special schools may better help their schools to achieve the multiple goals in education by acknowledging and adopting the coping strategies of TSC. These strategies may also inform their leadership styles in working as school health leaders in the school health team.

School nursing is yet to be a well-developed specialty in the nursing profession in Hong Kong. With the understanding that the role of health education and health promotion lies not only in the education sector, development of nursing profession may help the school systems to provide more professional services to children. The tensional triad depicts the political nature of organisational change that school nursing may need to be better prepared for the expanded leadership and political role, such as in affecting the health policy within and outside of schools (Whitehead, 2003).

### 5.12 Recommendations for Future Research

The TSC is an attempted to describe and explain the complexity and uncertainties of schools implementing changes. The multiple contexts and levels of analysis in organisational

research (such as change and leadership research) challenge theory developments and applications (Pasmore & Woodman, 2017; Pettigrew, Woodman, & Cameron, 2001). The logic of trialectics offers a transformation in the perspective of change: from dialectical perspective of change to the probabilistic perspective—every directions of change is possible if criteria of change are fulfilled—that visionary future is attractive enough to the schools. However, more questions and directions for future research are yielded, some examples are provided below.

The political aspect of school members' interactions is partially described in *Triangulating tensions.* Further research is needed to explore and explain the political nature of tensions among authority, autonomy, and accountability of the stakeholders. However, how school systems assimilate changes into the accountability framework (i.e. SMI) of local education system due to the difficulty in accessing sensitive governmental and accreditation (e.g. HKHSA) data is a question yet to be answered. The strategy of *Strategising,* which concerns school-based management decision-making, also requires further research to understand how health-related elements are prioritised under the effects of multiple needs and expectations of stakeholders and

society. *Empowering leadership,* as an essential team level strategy, raises questions about leadership styles in organisational changes for HPS. For example, how different leadership styles affect organisational changes? *Cultivating* involves individual reflections on and practices of change, but will and how these changes bring reciprocal impacts on the definition of education and health? These questions stemming from the process of this CGT study based on the existing data of theoretical sampling and comparative analysis remains as the directions for further studies. They may not appear to be the main concerns of all participants, but the key research recommendations for more advanced understanding and development of successful HPS.

Another area for future study is how the current practice of parent and student participations contribute to HP in schools, HP, the tensional triad, and organisational changes. Ng (2013) suggested that “there is little evidence that schools are accountable to parents and have any intention to hand over policymaking power to parents and communities.” (p. 668) while student participation in forms of formal and informal channels in Hong Kong was close to tokenism (Y. W. Leung et al., 2016). Since there were only 3 parents and 2 students participated in the study, further research is

needed to understand the phenomenon in order to promote genuine participation of parents and students, as well as to facilitate school changes.

Last but not least, further research is needed on the possibility of establishing stationing school nurse service. Having said that the provision of stationing school nurse service may lessen the existing tensional triad so as to streamline organisational changes; there are also negative experiences and challenges of school nurses as documented in overseas literature (Klein, Sendall, Fleming, Lidstone, & Domocol, 2012; Morberg et al., 2006; S. G.Smith & Firmin, 2009). These experiences, being subjected to the influence of historical, cultural and political factors (Croghan et al., 2004), may be different in Hong Kong contexts because of the scanty local literature about school nursing. Therefore further research is certainly needed to understand the experiences of school nursing in Hong Kong schools, including special, normal and international schools on topics related to their roles in health education, health promotion, and organisational change.

## 5.13 Reflections on CGT as Research Method

Classic grounded theory has offered the researcher a great autonomy in generating a middle-range grounded theory about organisational change in schools. The researcher has gone through a learning process and challenges specific to CGT.

Without a priori knowing about the main concerns of the participants in the area of study, the researcher set initiative research questions to guide the investigation because of the considerations that the researcher is a novice. This beginning of research has challenged the mentality of researcher in facing the unknown and emerging data and directions (Glaser, 1978, 1998, 2015, 2016; Holton & Walsh, 2017). The position of the researcher as a health-sector trained Registered Nurse has also been challenged because the data emerging through theoretical sampling suggested that HPS may be an education-oriented process. Ironically, the initial research questions have become a two-edge sword that on the one hand gave a possible direction in the area of unknown, on the other hand constraining the researcher to think out of the box from the healthcare perspective. The final breakthrough from the struggle came from repetitive readings of CGT materials, such as books and seminal works of Glaser and his students and

others' CGT-based theories. The overall experience of CGT learning is a slow learning curve, self-doubt, analysis regressions and Eureka moments that has long been foreseen by Glaser (Glaser, 1978, 1998, 2014b). It is also exciting that the TSC opens a lot possible future directions of research.

Being a general research method, CGT is a philosophical neutral analysis method different from other variations of GT, including Strauss and Corbin's version (Straussian GT) (Strauss & Corbin, 1990, 1998; Corbin and Strauss, 2008, 2015), Charmaz's constructivist GT (Bryant & Charmaz, 2007; Charmaz, 2006, 2014) and other contemporary variations (Birks & Mills, 2015; Clarke, 2005).

The researcher belief that field observation would yield important insights and data, but the difficulties of seeking schools' approval to conduct prolong field observation has prevented the researcher to obtain sufficient data from the limited field notes. The researcher relying on the interviewing data for data analysis is not the ideal learning experience as a grounded theory novice.

During the concurrent interviewing and data analysis, the greatest challenge for the researcher was to stay theoretical sensitive and to avoid premature theorising. In addition, during

constant comparison and coding, battles happened between full-range (detailed) descriptions and conceptualisations of data. Glaser (1978, 1998, 2015) always reminds GT researchers to avoid coding for descriptions, and focus on coding for conceptualisation. However, the researcher's consistent self-doubt about the insufficiency of interviewing data blocked creativity and theoretical sensitivity.

During open-coding stage (before finding the core category), the trap of full-range descriptions in coding put the researcher into endless coding, searching and questioning (such as who, when, where, why, how) that imposed the risk of forcing conceptualisation (Glaser & Holton, 2004; Holton & Walsh, 2017), and prolonged decision on the core category (and thus subsequent selective coding).

The researcher struggled to go back and forth to the open codes because there were various potential core categories, including political triangulating, strategizing to maximise effectiveness, leading collegiality and cultivating ethos. In fact, the categories of TSC (*Triangulating tensions, Strategising, Motivating leadership* and *Cultivating*) possess the potential to become the core if other directions of subject recruitments were taken.

For example, the opportunity to participate in school board meetings may further the conceptualisation of the politics of decision-making, but this opportunity was unavailable in the study. Under the contemporary cultures and practices of schools buying-in the more democratic leadership styles, further investigations of leadership would need to focus on certain professional populations (e.g. principals, managerial teachers and nurses) working within and/or outside schools. However, this direction of focus may be less compatible to the complexity of schools as social complex adaptive systems. In order to deepen the understanding of how school cultivates ethos, prolonged field observations are needed.

During selective coding stage, categories were linked to the selected core category that similarities and differences were compared and maximised until saturated. Similar to the open-coding stage, the researcher struggled to find data in order to saturate the conceptualisation of categories and properties. The researcher admitted that the difficulties in finding “unsuccessful” or non-HPS cases have limited the potential of a more thorough conceptualisation (see later discussions on limitation of the study).

During theoretical coding stage, *complexity/complex system, change, breakthrough/tipping point, potentiality* and so on were

examples of theoretical code relevant to the TSC. Glaser (1978, 1998, 2005, 2011) proposed that theoretical codes serve to link categories to the core category theoretically that they are often overlapping and implicit in the data. The researcher would also like to propose that the logic of trialectics to be a family of theoretical codes. Theoretical codes of trialectics may include attractives, actives, equilibrium, cycling of opposite forces (e.g. paradoxes), material manifestation points, mutation (change), and so on. Finally, although Glaser (1978, 1998, 2005) has warned that "process" (e.g. basic social process) is not necessarily a relevant theoretical code, the researcher forced this theoretical code during data analysis for quite a long time, especially when the research question was set at the very beginning: *What is the process whereby schools become and sustain as health-promoting institutions?* The researcher have had difficult times of learning, unlearning and relearning in order to stay true to the CGT method with the tremendous helps from supervisors and readings.

Memo writing is the core data analysis process. Memo writing helped the researcher to clarify concepts and confusions during the different stages of coding as described above. The researcher has found that computer software / computer-assisted

qualitative data analysis (CAQDAS [NVivo 10/11]) was less convenient than manual (hand) writing and sorting. This also contributed to the slow learning curve of CGT because CAQDAS was less flexible for theory generations and time-consuming to learn and adapt (Glaser, 1998, 2014b). While the researcher still used computer software for transcript typing and open coding, selective and theoretical coding were also done manually. Memo writing and sorting through writing on papers were even more convenient than writing on computer.

Last but not least, the researcher kept doubting the process of discovery (generation) of a substantive grounded theory—the TSC—for its incompleteness. Glaser (Glaser, 2014a, 2014b) suggests that a grounded theory is readily modifiable, hence the theory will get better and expand through future analysis and applications. A grounded theorist, such as the research, keeps learning, generating and refining better theories and that the PhD process using CGT is just the beginning (Glaser, 2014b).

## 5.15 Conclusion

In this chapter, the TSC was further discussed with the integration of insights from complex system, organisational

paradoxes and responses, and the logic of trialectics. In answering the main research question of the study: *What is the process whereby schools become and sustain as health-promoting institutions?* The 3-D model attempted to demonstrate a holistic, complex understanding of schools in streamlining organisational changes including but not limited the implementation of HPS. Subsequently, the researcher discussed the potential of school nurse in lessening organisational tensions, hence streamlining organisational changes. With the application of TSC, the researcher humbly suggested that the provision of stationing school nurse service could foster intersectoral collaborations between health and education sectors in providing better school health education and promotion to schoolchildren.

Finally, reflections on the limitations of study and the CGT as research method were discussed.

# CHAPTER 6

# CONCLUSIONS

## 6.1 Introduction

The aim of this CGT study was to formulate a middle-range grounded theory from the exploration of the process of schools becoming, attaining, and sustaining as health-promoting institutions. This study has reached this aim by identifying the main concern and strategies adopted by the participants in solving this concern: undergoing organisational changes overshadowed by the tensional triad.

This final chapter summarises the findings of this study.

## 6.2 Summary of Study Findings

It is concluded that schools implementing measures to achieve the status of Health-Promoting Schools (HPS) concerned certain goals other than health, which are the education goals of students and management goals of schools as an organisation. The study indicated that health education and health promotion are complex processes. Determining the causal relationships among factors contributing to the "success" of schools sustaining as a

health-promoting institution is not the key finding of this study, nor is defining the “success” of HPS and organisational change straightforward. What is clear from the research process is that organisational change is the core of HPS, which involves multi-levels coping strategies that boundaries of those levels are even blurring.

Organisational paradoxes are inherent in schools, which are conceptualised as the tensional triad. Coping strategies adopted by the participants are hypothesised to reduce the tensions or resistance among authority, autonomy, and accountability. However, these strategies aim to cope with the organisational paradoxes, but not guarantee obvious changes, such as attaining an HPS award. The logic of organisational paradoxes (logic of dialectics) assumes that organisational levels are clearly defined, and that strategies (such as spatial and temporal separations) are sufficient to overcome changes. In reality as discovered from this study, this assumption is insufficient for the complex nature of schools. Rather, *emergence* is the fundamental nature of social complex adaptive systems. In other words, changes to a certain directions could only be guided or streamlined, but not guaranteed or fully planned to achieve.

From the findings of this study, the logic of trialectics emerged as a complimentary logic in explaining the uncertainties of change. Such logic allows changes to be probabilistic, or assumes that changes happen when the criteria are fulfilled, but still the directions of changes depend on equilibrium of the system, i.e., attractiveness of the proposed change(s), histories of the organisation, and contexts in which the organisation situates. The tensional triad as the equilibrium of a school is usually distorted by the introduction of change, or initiatives such as HPS. The applications of HPS strategies thus either maintain the equilibrium of the school, or promote changes of the school with an aim to restore equilibrium and achieve new development at the end. In this study, this equilibrium or “check point” is the tensional triad. Therefore, in order to better promote organisational change underneath the development of an HPS, the hypothesised strategy is to distort the equilibrium as much as possible: applying all the coping strategies simultaneously, that is the Theory of Streamlining Changes (TSC). The provision of stationing school nurse service is hypothesised to be able to aid streamlining / distorting the equilibrium, or lessening the resistance to change, because school nurses may arbitrate the tensional triad in the education system.

## 6.3 The Aim of the study and the "Answers" to the Research Question

The TSC fulfilled the aim of the CGT study in generating a substantive grounded theory describing and explain the main concern, and their strategies in dealing with the main concern of the participants. The parsimonious answer to the study's research question (*What is the process whereby schools become, attain, and sustain as health-promoting institutions?*) is that school stakeholders interact to cope with organisational tensions, and to streamline changes in a social complex adaptive systems. Last but not least, as inherent in CGT, the TSC as a grounded theory also fulfilled the aim to open up further research questions and directions in the studied area.

## 6.4 Contribution to New Knowledge

The study has explored the implementation and adaptation of HPS in Hong Kong context, and has theorised a new model (TSC) explaining the uncertainty of outcomes and sustainability of HPS and organisational change per se. The study is the first CGT research to produce a middle-range grounded theory in describing and explain the latent concern of schools in encountering

organisational changes (e.g. the HPS). The tensional triad (tensions among authority, accountability and autonomy) is a new attempt in understanding organisational tensions and paradoxes.

The WHO HPS framework and its modified models adopted worldwide has been adopting the ecological concept, but rarely explicitly integrate complex theories and organisational tensions in their model. Moreover, these contemporary models did not emphasis that organisational changes (e.g. HPS) are probabilistic, that is however emphasised in the logic of trialectics. The current model of TSC is the first attempt to integrate ecological concept, complex system theories (SCAS in particular), logic of trialectics.

In addition, the model of TSC serves a foundation to reinforce the argument of the importance of having a stationed healthcare worker in schools who are specialised and responsible for health promotion and health education for schoolchildren, such as school nurses. Through possibly lessening the inherent tensions of schools (organisations), school nurses could serve to streamline the tensions, hence organisational changes. This proposition does not mean that school nursing solve any, if not all, the issues and tensions in schools, however, the current grounded theory

suggested a new way of understanding and strategy of health promotion and health education in schools, fostering future innovations, benefiting inter-sectoral collaboration of education and health sectors.

Lastly, the core category (Streamlining Change), could possibly contribute to expand the theoretical coding families (Glaser, 1978) of Classic Grounded Theory, such as the logic of trialectics (mutation, attractives, actives, function, and probabilistic outcomes).

## 6.5 Conclusion

The current grounded theory study attempted to generate a theory of developing successful HPS, with an emerged core process as the organisational changes. However, the theory is not a full and comprehensive description and explanation of schools as a social and complex adaptive system. There are far more questions to be answered and areas of research which require the use of a variety of quantitative and qualitative research methods, including ethnographic studies for cultures, case studies for in-depth investigation of organisational team dynamics of change, management and leadership, and politics. Action research may also

be conducted by a designated health promoter or a school-based health promotion team which are specialised in the HPS approach, such as that leading by a stationing school nurse. It is believed that the current study has contributed to the current knowledge of nursing, school nursing, and the aspect of organisational change for HPS, as well as a new knowledge ground to fostering the mutual understanding and future collaborations of both education and health sectors.

**Appendix I**

## Interview Guide (I)

General/Open-ended questions:

1. Please describe freely/casually how you or the school join the HPS?
2. Please describe your tasks/jobs in implementing HPS
3. According to the WHO HPS framework, there are 6 key factors... what is your task in doing so?

Role-related questions:

1. As a school nurse/principal/teacher... what are your routine roles/tasks/jobs in school?
2. Does your school expect you to do anything during the implementation of HPS?
3. How are the tasks/jobs in implementing HPS related to your routine tasks/jobs?

Process-related questions:

1. Do you prioritize your tasks/jobs in implementing HPS?
2. If yes, what is the prioritization?
3. Please describe how you (can) contribute to the following in the implementation of HPS or other initiatives, such as:
   - Planning process
   - Collaboration
   - Coordination
   - Evaluation

Framework-related questions:

1. According to the WHO HPS framework, there are 6 key factors...what is your task in doing so?

2. Can you describe what you are doing with the initiative(s) that your schools are doing?
3. Is there any prioritization, or way of doing, specific for the HPS or the initiative(s) that you mentioned?

Strategy-related questions:

1. What are the facilitators that you indentified during the implementation of HPS/initiatives and the collaboration?
2. What else do you think is important to facilitate the implementation of HPS/initiatives and the collaboration?
3. What are the (major) facilitators that you think your school possesses which make the HPS/initiative successful? How do they work in the process discussed previously?
4. What are the obstacles that you indentified during the implementation of HPS?
5. What else do you think will be the obstacles of the implementation of HPS and the collaboration?
6. What are the (major) impedances that you think your school possesses which obstruct the implementation of HPS? How do they work in the process discussed previously?
7. How do you, and your team, overcome these obstacles in the implementation process?

Literature-related questions and questions for comparisons:

1. Someone/scholar said (There is literature saying) that following a framework/guideline to implement HPS is important, what is your opinion/experience?
2. Someone said (There is literature saying) that the support and commitment of school top management is essential, what is your opinion/experience?

3. Someone said (There is literature saying) that schools should adopt a multidisciplinary/collaborative approach to implement HPS, what is your opinion/experience?
4. Someone said (There is literature saying) that health promotion should be incorporated to the curriculum, what is your opinion/experience?

**Appendix II**

**Interview Guide (II)**

| No. | Interview Questions | Probe |
|---|---|---|
| 1 | **How did you and your school join the Health Promoting Schools (HPS)/Hong Kong Healthy Schools Awards organized by The Chinese University of Hong Kong (CUHK)?**<br><br>Please describe freely/casually how you join the Health Promoting Schools?<br>請自由地、鬆容地形容您們是怎樣參加「健康校園」的?<br>請隨便地講下你地係點樣參加健康校園嘅呢? | How many times?<br>Year(s)?<br>Who *(propose? agree/support? disagree/hesitate? coordinative/collaborative?)*<br>Process:<br>- Preparation phase?<br>- Implementation phase?<br>- Evaluation phase?<br>If more than one time…<br>- Why?<br>- What are the different?<br>- Who propose? |
| 2 | **What are the perceived/ideal roles/tasks/jobs as a school nurse? How are they different from the reality?**<br><br>As a school nurse, what are your routine roles/tasks/jobs in school?<br>一位駐校護士理想中的角色/工作/崗位是甚麼?<br>身為駐校護士 (校護) 您日常嘅工作係咩野呀? | Is there any different between the "perceived/ideal" and the "reality/routine" tasks/jobs/role? |
| 3 | **How do/did you implement HPS? (if more than once; describe separately)**<br><br>Please describe your tasks/jobs in implementing Health Promoting Schools | Your task as a school nurse?<br>Cooperation<br>- among other staff |

| | | |
|---|---|---|
| | (HPS).<br>您是如何實施 [健康校園] 的呢?<br>請講下您係實行 [健康校園] 時嘅工作. | - among other stakeholders<br>Coordination<br>- within the school (*Smooth? Seamless? Stuffy?*)<br>- outside with other Organisations<br>*(What? Why? How? Time?)* |
| 4 | **What are/were the school's expectations on you during (*also before and after*) the period of implementation of HPS?**<br>Does your school expect you to do anything during the implementation of HPS?<br>校方對於(您)實施 [健康校園] 有何期望? (包括實施前和後)<br>學校對您, 即係一個校護, 係實行 [健康校園] 時有無咩期望呢? | Who? (*school principal? teachers? other staff? parents? pupils? etc.)*<br>Expressed or perceived?<br>Why? (they expressed as such; you perceived so)<br>Ideal? Reality?<br>Too much? Just right? |
| 5 | **What is the relationship between your (perceived/real) roles/tasks/jobs in implementation of HPS and that of the routine?**<br>How are the tasks/jobs in implementing HPS related to your routine tasks/jobs?<br>您在實施 [健康校園] 時的工作和日常工作有何關係?<br>您的日常工作, 同 [健康校園]的工作有咩關係? | Match? Deviated? Why?<br>Any significant to you? to other? and to the school? |
| 6 | **Is there any prioritization in your roles/tasks/jobs in the implementation** | |

| | | |
|---|---|---|
| | **of HPS?**<br>Do you prioritize your tasks/jobs in implementing HPS?<br>實際 [健康校園] 時, 您的工作有沒有優先次序?<br>係您剛才所講嘅 [健康校園] 工作中, 您有無按排優先次序呢? | |
| 7 | **If yes, how are they prioritized?**<br><br>If yes, what is the prioritization?<br>如有, 優先次序為何?<br>如果有優先次序, 呢啲工作嘅優先次序係點呢? | Why so? *(Why not?)* |
| 8 | **There are six key factors identified in the World Health Organisation's Health Promotion Schools Framework (WHO HPS framework), what are your roles/tasks/jobs in these 6 key factors? Please feel free to describe one by one. And if you think they *(the factors or the tasks)* are inter-related, please describe how.**<br><br>According to the WHO HPS framework, there are 6 key factors... what is your task in doing so?<br>根據世界衛生組織 [健康校園] 架構內的六大發展範疇 (元素), 請續一說明您在其中的工作, 並它們 (工作) 之間的關係.<br>係世界衛生組織 [健康校園] 架構中, 有六大發展範疇 (元素)... 當中, 您 (校護) 會做啲咩呢? | 1. [健康校園政策] (healthy school policies)<br>2. [學校環境] (School physical environment)<br>3. [校風與人際關係] (School social environment)<br>4. [健康生活技能與實踐] (Action competencies for healthy living)<br>5. [家校與社區聯繫] (Community links)<br>6. [學校保健與健康促進服務] |

| | | |
|---|---|---|
| | | (School health care and promotion services) |
| 9 | **How do/did you prioritize the implementation of those 6 key factors?**<br><br>Is there any prioritization for theses 6 key factors?<br>這六大元素有優先次序嗎?<br>呢六大元素, 您又有無優先次序呢? | If yes, why so?<br>If no, why different from the prioritized task? |
| 10 | **Please describe the teamwork presents in the implementation of HPS. Please give related examples to illustrate.**<br><br>Please describe how your team works together.<br>您的團隊合作如何? 請使用事例來說明.<br>講下您同您嘅團隊點樣合作? | Who?<br>What? (Event)<br>When? (How long? What occasion?)<br>How?<br>Why? |
| 11 | **Please describe your roles/tasks/jobs in the following processes of HPS implementation.**<br><br>**- Planning process**<br>**- Collaboration**<br>**- Coordination**<br>**- Evaluation**<br><br>Please describe how you (can) contribute to the following in the implementation of HPS:<br><br>- Planning process<br>- Collaboration | |

- Coordination
- Evaluation

根據您在實施 [健康校園] 時的工作, 請說明以下項目:

- 策劃過程
- 合作過程
- 協調過程
- 評估過程

請講下您係實施 [健康校園] 嘅時候所所(能)參與的東西, 就例如:
- 策劃過程
- 合作過程
- 協調過程
- 評估過程

12 **During the implementation of HPS and the collaboration, what kind of facilitators can be identified?**

What are the facilitators that you indentified during the implementation of HPS and the collaboration?

實施 [健康校園] 時, 您發現了甚麼正面因素?
當中有咩因素幫助您地實施 [健康校園] 同埋合作呢?

Finance?
Support?
Attitudes? (You and the others in the team?)

13 **Beside the above-mentioned facilitators, any other important factors that can facilitate the implementation and collaboration?**

What else do you think is important to facilitate the implementation of HPS and the collaboration?

除上述因素外, 還有別的東西幫助您實施 [健康校園] 嗎?
仲有咩重要野您覺得可以幫助您實施 [健康校園] 同埋您地嘅合作呢?

14 **Above all the facilitators that you have mentioned, which one is the most important? How does it work in the processes discussed previously?**

What are the (major) facilitators that you think your school possesses which make the HPS successful? How do they work in the process discussed previously?
您覺得以上邊啲因素最能夠令到您地嘅 [健康校園] 成功呢? 佢地又點樣係之前討論過嘅 "過程" 中運用出黎呢?

15 **During the implementation of HPS and the collaboration, what kind of obstacles can be identified?**

Finance?
Support?
Attitudes? (you and the others in the team?)

What are the obstacles that you indentified during the implementation of HPS?
實施 [健康校園] 時, 您發現了甚麼負面因素?
當中有咩因素阻礙您實施 [健康校園] 同埋您地嘅合作呢?

16 **Beside the above-mentioned obstacles, any other important factors that will hinder the implementation and**

**collaboration?**

What else do you think will be the obstacles of the implementation of HPS and the collaboration?
除上述因素外, 還有別的東西阻礙您實施 [健康校園] 嗎?
仲有咩您覺得係實施 [健康校園] 同嘅合作嘅阻礙呢?

| | | |
|---|---|---|
| 17 | **Above all the obstacles that you have mentioned, which one is the most important? How does it impede the processes discussed previously?**<br><br>What are the (major) impedances that you think your school possesses which obstruct the implementation of HPS? How do they work in the process discussed previously?<br>您覺得以上邊啲因素最阻礙您實施 [健康校園]? 佢地又點樣係之前討論過嘅 "過程" 中顯示出黎呢? | |
| 18 | **What are the strategies used to overcome these obstacles?**<br><br>How do you, and your team, overcome these obstacles in the implementation process?<br>您和組員用何等方法排除阻礙呢?<br>係成個過程中, 您, 和您的組員, 點樣解決呢啲問題 (阻礙) 呢? | Solely as a school nurse<br>As a team |
| 19 | **Various frameworks/guidelines have been proposed or identified in the West, such as in the US and European** | |

**countries. How do you evaluate their importance on the implementation of HPS?**

Someone said (There is literature saying) that following a framework/guideline to implement HPS is important, what do you think?
文獻提及各式各樣與 [健康校園] 有關的架構/指引, 您有何意見?
有人(文獻) 講過指引或者大剛對實行 [健康校園] 十分重要, 您又點睇呢?

20 **Scholars suggest that school top management should provide supports and commit in the implementation of HPS via various means, such as funding, policy making, empowerment, etc. What is your opinion on this?**

Someone said (There is literature saying) that the support and commitment of school top management is essential, what do you think?

學者建議校方管理層應該給予支持, 承擔起 [健康校園] 的推行, 例如提供贊助, 定立政策等, 您有何意見?
有人(文獻) 講過管理層同其他相關人士, 或者團體, 嘅支持, 仲有佢地嘅承擔好重要, 您又點睇呢?

21 **Scholars suggest that in order to make HPS successful, a multidisciplinary/collaborative approach is important. What is your opinion on this?**

Someone said (There is literature saying) that schools should adopt a multidisciplinary/collaborative approach to implement HPS, what do you think?
學者認為若要使 [健康校園] 成功, “多樣化團體合作” 是很重要的, 您有何意見?
有人(文獻) 講過應該採用一個 “多樣化團體合作模式” 來實行[健康校園], 您又點睇呢?

22 **Scholars suggest that school nurses have to continue their professional training and education in school health promotion. What is your opinion on this?**

Someone said (There is literature saying) that continue education and training for school nurses is important for the implementation of HPS, what do you think?
學者認為駐校護士應該持續進修, 繼續專業培訓, 您有何意見?
有人(文獻) 講過, 校護要繼續進行培訓和進修, 您認為呢?

**Appendix III**

**Field Notes**
**(Template)**

<table>
<tr><td colspan="2">Date:<br>Time of Observation:<br>Location:<br>Observer:<br>Code:</td></tr>
<tr><td>Facts and Details in the Field Site</td><td>Observer Comments</td></tr>
<tr><td>[Insert sensory information in chronological order]</td><td>[Insert reflections to each of the facts and details of the setting]</td></tr>
<tr><td colspan="2">Reflective Summary [Insert the overall impressions of the observations as well as additional questions for future data collection]</td></tr>
</table>

**Appendix IV**

## Field Notes

## (Sample from an Interview)

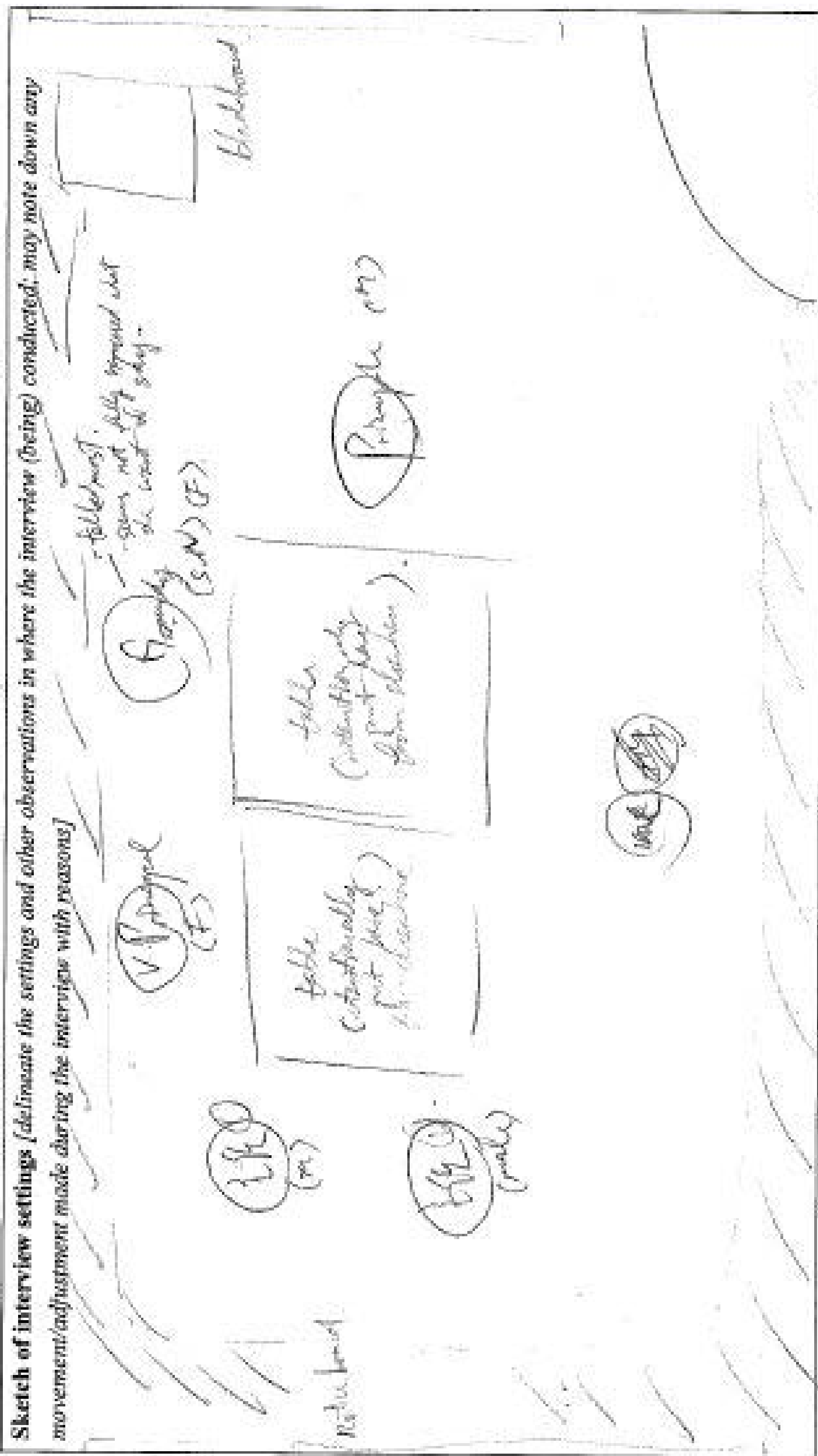
**Field Note** January 14, 2013

Date: 18-1-2013
Time of Observation: 1615 -
Location: K.O. [illegible]
Observer: TM
Code: [illegible]

| Facts and Details in the Field Site | Observer Comments |
| --- | --- |
| *[Insert sensory information in chronological order]* [illegible handwritten notes] | *[Insert reflections to each of the facts and details of the setting]* [illegible handwritten notes] |

**Reflective Summary** *[Insert the overall impressions of the observations as well as additional questions for future data collection]*

- Insufficient field observations, mostly due to the accompany of principal. The accompany made me not time to drop notes, to draw or to think in the field, because I had to listen & understand what the principal said. The principal actually talked much on the issue of inadequate space (maybe due to not understand my aim of visit at the very beginning) I didn't mentioned it too because I wanted to make it daily interview (it may be wrong).
- Questions to be further asked...
  1. Why there are very few "health-related" posters in the school?
  2. Any facilities directly related to health promotion?
  3. What facilities directly/indirectly addressing the evaluation criteria of health promoting school?
  4. Most importantly, PLEASE FIND OUT THE EVALUATION CRITERIA OF HPS!


Field Note
January 14, 2013
Sketch of interview settings [delineate the settings and other observations in where the interview (being) conducted; may note down any movement/adjustment made during the interview with reasons]

**Appendix V**

## Contact Summary Sheet
## (Template)

Interviewer: Contact Date:

Interviewee (Code): Today’s Date

1. **Where were the main issues or themes that stuck out for you in this contact?**

2. **What discrepancies, if any, did you note in the interviewee’s response?**

3. **Anything else that stuck out as salient, interesting, or important in this contact?**

4. **How does this compare to other data collections?**

**Appendix VI**

**Contact Summary Sheet**

**(Sample from an Interview)**

Interviewer: TM　　　　　　　　　　　　　　Contact Date: 25.10.2013

Interviewee (Code):　　　　　　　　　　　　Today's Date

**1. Where were the main issues or themes that stuck out for you in this contact?**

"永續" – ever sustaining. Health promotion in school has to be sustainable. It is not just a matter of "personal health", but also a matter of how to build up an ever-sustaining environment/atmosphere/culture which facilitates/allows/fosters the people to live healthily. Family (health) is very important for a student to live healthily. Therefore, even the staff should live their families healthily. To a certain extend, the school is a healthy setting which constantly reinforce the people to live, work & love healthily.

**2. What discrepancies, if any, did you note in the interviewee's response?**

a limitation is school nurse's role vs. collaborations among professionals

holistically developing myself vs. all-round development via collaboration

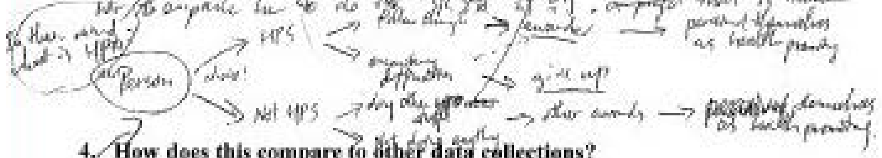
'Strategy'

They don't mind it works!

**3. Anything else that stuck out as salient, interesting, or important in this contact?**

Policy !

The SN said she would not bother to apply for the HS Award, as the school is doing what exactly the same principles/concepts of HPS. When being asked if she preferred a clear guideline to be developed so as to guide HP works, she expressed a dilemma that freedom ...



**4. How does this compare to other data collections?**

? struggling in evaluating achievement?

Any others?! ...

become an "ever-sustaining" health-promoting agent?

**Appendix VII**

**Demographic Data Sheet**

(Cover Page)

Code:___________________ Date of interview:________________

Participation: ☐ Individual interview ☐ Focus group interview ☐ Others _________

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**Demographic Data Sheet**

| | |
|---|---|
| 1. Name: | |
| 2. Gender: | Male / Female* |
| 3. Age (please fill *or* tick): | ☐ <24 ☐35-39 ☐50-54 |
| | ☐25-29 ☐40-44 ☐>55 (retired: yes / no*) |
| | ☐30-34 ☐45-49 ☐ specify if you wish: ____ |
| 4. Health-related awards: | ______________________________ (name of award) |
| (e.g. Healthy Schools Award, | by POLYU / CUHK / Others ( ________________ )* |
| HAS, etc.) | in year ______________________________________. |
| 5. You are... | ☐ Single ☐ Married |
| (you may choose | ☐ A father / mother* (of ___ son and/or ___ daughters) |
| more than one | ☐ A grandfather / grandmother |
| option & fill in the | (of ___ grandsons and/or ___ granddaughters) |
| blanks) | ☐ Others (you may specify: _____________________ ) |
| 6. Education attainment: | ☐ Bachelor in Education / other*: ________________ |
| (please tick all that you | ☐ Master in ___________________________________ |
| have attained & fill in the | ☐ PhD (Thesis title: |
| blanks) | ________________________________ |
| | ____________________________________________ |
| | ____________________________________________ |
| | ____) |
| | ☐ **Health-related** diplomas, qualifications, trainings... |
| | please specify: ____________________________ |
| | ☐ Others (non-health-related) |
| | please specify: ____________________________ |

*choose one as appropriate.

Page 1/2

**Demographic Data Sheet**

| | | |
|---|---|---|
| 7. Current position: (please also fill in the blanks) | ☐ **Principal** (in this position for ___ years; being a vice principal for ___ years; a teacher for ___ years in current / other* schools)<br>☐ **Vice Principal** (in this position for ___ years; being a teacher for ___ years in current / other* schools)<br>☐ **Teacher** (being a teacher for ___ years)<br>☐ **Registered nurse** (being a school nurse for ___ years in this school <u>and</u> ___ years in other schools; worked in clinical settings for ___ years)<br>☐ **Social worker** (being a social worker for ___ years in this school <u>and</u> ___ years in other schools)<br>☐ **Others:** ____________________ | |
| 12. Monthly income: | ☐ ≤ $10 000 | ☐ $40 001 - $45 000 |
| | ☐ $10 001 - $25 000 | ☐ $45 001 - $50 000 |
| | ☐ $25 001 - $30 000 | ☐ $50 001 - $55 000 |
| | ☐ $30 001 - $35 000 | ☐ $55 001 - $60 000 |
| | ☐ $35 001 - 40 000 | ☐ > $60 001 |

14. Involved in **school health promotion** since:

15. Jobs, projects, interests, hobbies, etc. **related to health promotion and health education** if any:

16. Religious beliefs or practices:

---

*choose one as appropriate.



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# Appendix VIII

## Letter of Ethical Approval

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

| | | | |
|---|---|---|---|
| To | Lee Regina Lai Tong (School of Nursing) | | |
| From | KWONG Wai Yung, Chair, Departmental Research Committee | | |
| Email | hsenid@inet.polyu.edu.hk | Date | 07-Jan-2013 |

**Application for Ethical Review for Teaching/Research Involving Human Subjects**

I write to inform you that approval has been given to your application for human subjects ethics review of the following project for a period from 04-Jan-2013 to 31-Jan-2014:

| | |
|---|---|
| **Project Title:** | The Interactions of Health Promoters Implementing Awarded School Health Programmes in Hong Kong: A Grounded Theory Study |
| **Department:** | School of Nursing |
| **Principal Investigator:** | Lee Regina Lai Tong |

Please note that you will be held responsible for the ethical approval granted for the project and the ethical conduct of the personnel involved in the project. In the case of the Co-PI, if any, has also obtained ethical approval for the project, the Co-PI will also assume the responsibility in respect of the ethical approval (in relation to the areas of expertise of respective Co-PI in accordance with the stipulations given by the approving authority).

You are responsible for informing the Departmental Research Committee in advance of any changes in the proposal or procedures which may affect the validity of this ethical approval.

You will receive separate email notification should you be required to obtain fresh approval.

KWONG Wai Yung

Chair

Departmental Research Committee

Page 1 of 1

**Appendix IX**

## Information Sheet

## The Interactions of Health Promoters Implementing Awarded School Health Programmes in Hong Kong: A Grounded Theory Study

You are cordially invited to participate in a study conducted by Mr. Hung Tsz Man Tommy (investigator), who is a PhD student in the School of Nursing of The Hong Kong Polytechnic University under the supervision of Dr. Regina Lee (principal supervisor) and the co-supervision of Dr Vico Chiang (co-supervisor). The project has been approved by the Human Subjects Ethics Sub-committee (HSESC) of the University.

The aim of this study is to explore the experiences and interactions of multi-disciplinary health promoters regarding the success in implementing school health programmes. The study will involve your participation in focus group and individual interviews. You may be asked to take part in these interviews for more than once when necessary in order to obtain more comprehensive data from your valuable experience. All interviews will be digitally recorded. The investigator will write notes during the interviews. You may also be invited to provide necessary materials in order to better understanding of the study topic, such as your publications and photos of school health promotion activities. All the records and information will be kept securely in a password-protected computers and key-secured lockers. Only the investigator and supervisors have the right to access the data. It is anticipated that this information will help to understand in good depth the interactions of multi-disciplinary health promoters who implement school health programmes so as to formulate a model to guide the school health promotion more systematically and fruitfully.

You will need to share your experience in the focus group interviews and interact with other participants, and your comments and ideas will be clearly captured. The interviews are unlikely to result in any undue discomfort. All information related to you will remain confidential, and

will be identifiable only by codes only known to the investigator.

You have the right to ask questions about the study related to yourself, provided that these questions will not offend the rights and confidentiality of other participants. You have the right to request correction of your personal data supplied for the study and you can withdraw from the study at any time without any penalty, nor violation of your rights. Each interview will take about 60-90 minutes.

If you would like to receive more information about this study, please contact the investigator, Dr. Regina Lee or Dr. Vico Chiang.

If you have any complaints about the conduct of this research study, please do not hesitate to contact Dr Virginia Cheng, Secretary of the Human Subjects Ethics Sub-Committee of The Hong Kong Polytechnic University in writing (c/o Research Office of the University) stating clearly the responsible person and department of this study.

Thank you for your interest in participating in this study.

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**Appendix X**

## 資料頁

(Information Sheet in Traditional Chinese)

健康促進者於香港實施獲獎的校園健康計劃中的互動：
紮根理論研究

多謝閣下參加是次學術研究。這次研究是由香港理工大學，護理學院 (醫療及社會科學院) 的博士研究生洪子敏 先生 (研究員) 負責，並由李麗棠 博士 (首席指導) 及蔣忠廉 博士 (副指導) 督導。這次研究已經獲香港理工大學的人類實驗對象操守小組委員會 (Human Subjects Ethics Sub-committee [HSESC]) 批准進行。

今次研究目的是透過您們的經驗去了解和探索，跨學科健康促進者如何成功地在校園實施健康計劃。這次研究需要參加者出席個別專訪或/和核心小組 (分組) 式的訪問。為使資訊更加完善，您可能會被邀請參與多過一次的訪問。您的參與是完全屬於自願性質的。研究員會利用錄音儀器為閣下的訪問錄音和寫下筆記。您亦可以在訪問中分享其他相關資料，例如學校刊物和照片等。所有的資料都會被保管在有密碼保護的電腦內，和被鎖在儲物櫃中。這些資料只能被研究員及其首席和副指導所參閱和使用。這次研究希望能幫助了解健康促進者在實施校園健康計劃的互動，從而制定更好的校園健康推廣模範。

希望今次的訪問不會為您帶來太多不便，或令您感到不適。我們誠意地請閣下在訪問中積極發言 (和與其他參加者互動)，以便我們可以清晰地記錄您的想法和意見。所有的資料都會保密，您的個人資料亦會以代碼來代替，只有研究員能夠識別您的身份。

在不侵犯其他參與者的權利和私隱下，您有權對是次研究提出和自己權利和私隱有關的問題，有權要求參閱自己的個人資料和作出資料上的修正。您亦有權在任何時間要求退出是次研究而不被以任何形式的滋擾。每次訪問會為時 60-90 分鐘。

如想獲得關於本研究的更多資訊，您可致電李麗棠　博士或蔣忠廉博士，以及電郵至研究員。

如有任何有關研究員操手的投訴，請以書面聯絡香港理工大學研究事務處秘書鄭淑娟　博士，列明所負責的研究員的身份。

多謝您參與今次的研究。

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**Appendix XI**

## Consent to Participate in Research

## The Interactions of Health Promoters Implementing Awarded School Health Programmes in Hong Kong: A Grounded Theory Study

I ______________________ hereby consent to participate in the captioned research conducted by Mr. Hung Tsz Man Tommy.

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

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

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without penalty of any kind.

Name of participant:
______________________________________________

Signature of participant:
______________________________________________

Name of researcher: Mr. Hung Tsz Man Tommy

Signature of researcher:
______________________________________________

Date:
______________________________________________

**Appendix XII**

參與研究同意書

(Consent to Participate in Research in Traditional Chinese)

健康促進者於香港實施獲獎的校園健康計劃中的互動：紮根理論研究

本人____________________同意參與由洪子敏先生開展的上述研究。

本人知悉此研究所得的資料可能被用作日後的研究及發表，但本人的私隱權利將得以保留，即本人的個人資料不會被公開。

研究人員已向本人清楚解釋列在所附資料頁上的研究程序，本人明瞭當中涉及的利益及風險；本人自願參與研究項目。

本人知悉本人有權就程序的任何部分提出疑問，並有權隨時退出而不受任何懲處。

參與者姓名：________________________________________

參與者簽署：________________________________________

研究人員姓名：洪子敏

研究人員簽署：______________________________________

日期：______________________________________________

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