



# A Foucauldian Analysis on Discourse in Primary School Physical Education Classes in Singapore

## Authors' contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

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## ABSTRACT

This study aims to investigate the discourse in physical education (PE) classes among primary school students in Singapore and reveal the distinctive governing epistemological structure. Eight primary school students were interviewed, and an archaeological analysis based on Foucault's thoughts and works was employed. The findings of this study provided a deeper understanding of PE discourse and offered a unique perspective on the conditions for such discourse to happen. A Foucauldian approach is thus a useful tool for policymakers when designing the PE curriculum and syllabus.

## KEYWORDS

physical education, primary school, Foucault, archaeological analysis, Singapore

## Introduction

Physical education (PE) in Singapore has gone through significant changes over the past few decades (McNeill, Lim, Wang, Tan, & MacPhail, 2009). In the 1980s and 1990s, there was an emphasis on physical fitness and motor skills development in Singapore schools (Thrope, 2003). In the late 1990s, a significant change took place with the introduction of the games-centred-approach (GCA). This approach was reinforced when the Singaporean government subsequently recognised the importance of PE in developing qualities beyond physical fitness such as innovativeness and creativity (McNeill & Fry, 2010). This has encouraged research in GCA in the Southeast Asia region (Harvey & Jarrett, 2014). A systematic review on GCA in PE has shown that there are positive outcomes on students such as increased declarative knowledge, better support for game performance, and higher students' perceived competence and enjoyment (Miller, 2014).

More recently, the Ministry of Education (MOE) in Singapore announced a move towards holistic assessment for students (PERI, 2009). It recognised that the strengths of a student might lie beyond academic aspects and the critical role of PE in developing essential life skills (PERI, 2009). Furthermore, in order to prepare students for the fast-changing environment fuelled by globalisation and the rapid advancement of technology, MOE has identified the framework for 21 Century Competencies (21cc) that is in line with a holistic education. Here, PE is again recognized as playing one of the central roles in cultivating the 21cc (PAM Research Committee, 2016).

As PE in Singapore has evolved over the years, many research studies have focused on areas such as improving PE pedagogy strategies (e.g. Chow & Atencio, 2014; Lee, Chow, Komar, Tan & Button, 2014) and describing

motivational profiles in predicting physical activity (e.g., Sproule, Wang, Morgan, McNeill & McMorris, 2007; Wang, Chatzisarantis, Spray & Biddle, 2002; Wang, Liu Chatzisarantis & Lim, 2010). Students' experiences in PE classes have not received much attention from researchers. To the best of the authors' knowledge, only Fry and Tan (2005) reported that students regard PE lessons as their own playtime. There is certainly a need to examine students' experiences of PE lessons given that Fry and Tan's (2005) study is dated and the PE curriculum in Singapore has undergone major changes in 2006 (MOE, 2005). Students' experiences are important as positive experiences would translate to higher levels of engagement (Gao, 2008; Ning, Gao & Lodewyk, 2012). In this sense, discourse analysis may offer an alternative perspective on students' experiences of PE in Singapore.

Discourse analysis, in brief, can be understood as the analysis of texts, such as books, articles, official policy papers, interviews, and films and posters (Hall & Chambers, 2012). The process of discourse analysis generally involves description, interpretation, and explanation, with a critique of discourses included in some analysis (Cruickshank, 2012). Discourse analysis serves not just to highlight the language used in the text, but also the role of the language in social practices (Hall & Chambers, 2012). In discourse analysis, it is assumed that people construct reality based on language. In this case, the language in these texts is not neutral. Language is not just a means of communication. It is used to express the view and position of the speaker when describing the world or phenomenon, and as a tool to persuade the reader to take the speaker's position (Hall & Chambers, 2012). More often than not, readers take for granted what the texts represent on the surface; discourses remain most powerful when it is *invisible*. By scrutinising the texts and the way the language is used, the deconstructions of text may surface some 'invisible' points, revealing the underlying intention of the texts, or provide alternative views (Hall & Chambers, 2012). In other words, discourse analysis does not aim to determine or question the 'truth' of the matter but to reveal the relationships between the objects involved and provide a clearer picture of how things are (Cruickshank, 2012). Discourse analysis is used in many studies across various fields, although the term 'discourse' is defined differently (Jansen, 2008). Among the various discourse analyses, Foucault's theoretical framework is probably one of the most commonly used (Jansen, 2008).

Foucault (1972) describes that "discourse is secretly based on an 'already-said; and that this 'already-said' is not merely a phrase that has already been spoken, or a text that has already been written, but a 'never-said', an incorporeal discourse, a voice as silent as a breath, a writing that is merely the hollow of its own mark (p. 25)." In *Archaeology of Knowledge* (Foucault, 1972) which is considered one of Foucault's most influential work, he proposed discourse as the "verbal performances... which was produced... by groups of signs... in so far as they are statements, that is, in so far as they can be assigned particular modalities of existence" (Foucault, 1972, p. 107). Statements can be in "various units (these may sometimes be sentences, sometimes propositions... sometimes made up of fragments of sentences, series of tables or signs, a set of propositions or equivalent formation" (p. 106), and the "dispersion and redistribution" (p. 107) of statements is known as discursive formulation.

Foucault avoids interpretation of deeper meaning beyond the text. Statements are essentially the function of a series of signs; thus it is not about "what they are hiding, what they were 'really' saying... on the contrary, it questions them about their mode of existence, what it means to them to have come into existence" (p. 109). Foucault (1972) posits that discourse is far from simple and monotonous. The 'truth' of the discourse and the historical aspect of the discourse, both consist unique system of statements (known as archive), produce the complicated scene for the discourse as the archives are "never completed" (Foucault, 1972, p. 130) and "cannot be described in totality" (p. 131). The search for these archives is thus known as archaeology (Foucault, 1972).

To date, several studies have conducted discourse analysis in the domain of PE. For example, systematic functional and semantic theories were used to examine the role of language used in single-sex classroom and co-education settings in PE and its impact on boys and girls (Wright, 1997). In a later study, Wright (2000) adopted Gore's coding analysis and systematic analysis on linguistics to examine the relationships of physical

bodies in PE. Thrope (2003) examined how politics had influenced the PE system in Australia by using crisis discourse analysis. Finally, discourse analysis was used to investigate the PE syllabus in Australia (Rossi, Tinning, McCuaig, Sirna, & Hunter, 2003) and Scotland (McEvilly, Verheul, Atencio, & Jess, 2014).

Following Foucault, the PE class in Singapore cannot be defined as it is. It is a discourse that is constituted by surrounding people of that age (Chung, 2009). It is critical because it does not illustrate past facts from a present perspective but rather describe them as a present perspective (Lee, 2003). Sim (1990) defined *épistémè* as describing the sub-elements which underpin the epistemic prospect and cultural structure in an era. *Épistémè* is a hidden order that supports discourse and a stratum under the knowledge (Sim, 1990).

To study *épistémè*, a new research approach is required which is different from the existing historical method. Foucault (1972) used the terminology, archaeology to explain what is happening for the moment in addition to the conditions of discourse that existed then. It sets skills, rules, and systems that comprise the knowledge in a specific environment at a particular time as evidence of social and discursive practice. Sheridan (1997) concurred that "discourse is not objected: rather, discourse constitutes them" (p.98). If you look into a structure of discourse, you would be able to establish how an educational policy implemented in a country has been developed (Chung, 2013). LeMoine (2006) also emphasised that "Foucault (1980, 1985; as cited in Krizman, 1990; Ransom, 1997) acknowledged the existence of unrecognised acts or forms of power within institutional contexts such as government and education." In other words, it implies that discourse amongst students is interconnected with the educational policy in Singapore.

As aforementioned, many research studies in PE in Singapore is focused on pedagogy (Koh, Camiré, Lim, & Soon, 2016; Koh, Ong, & Camiré, 2014; McNeil & Fry, 2010; McNeil et al., 2009). Recently, an attempt is made to review the primary school PE class from a sociological perspective (Chung, 2012). The purpose of this study is to make further contributions in this area by investigating the discourse on PE that is formed by Singapore's primary school students through Foucault's archaeological analysis. The present study seeks to address the following research questions:

1. What is the discourse of PE classes as spoken by primary school students?
2. How is the discourse of PE classes formed by primary school students in Singapore?

## Methods

### *Participants*

Eight primary school students were recruited from two primary schools in Singapore as research participants in this study using purposive sampling (Patton, 2002). The students recruited were from the upper primary (i.e., Primary 5 and Primary 6, age 11-12), with one male and one female student recruited for each study year. The respondents thus have at least four years (Primary 1 to Primary 4) experience of PE lessons in Singapore primary schools. Approval for the research was obtained from MOE and the school principals. The respondents were selected by their PE teachers. Informed consent to participate in the study were obtained from students' parents or guardians, as well as from the students.

### *Procedure*

Research participants were required to participate in two interviews. In the first interview, the students were asked to share their experiences when participating in PE lessons. The interviewer would probe the students for details regarding the activities (e.g., Can you share with me the activities that you have participated in your PE classes?), the people (e.g., Do you think other students are enjoying the activity? What does the PE teacher do before/during/after the class?), and the setting (e.g., Where do your PE teachers conduct their lesson? Where did you get the equipment from?).

This first interview took approximately 45 minutes and was recorded using a digital voice recorder. The interview was later transcribed in verbatim by the interviewer. Names of students were withheld to maintain confidentiality; a code (e.g., Student A, Student B) was used to refer to each student.

Additional questions were formulated for the second interview to make clarifications on the responses with the students and on topics that did not elicit sufficient detail. The second interview took place two weeks after the first interview. The students were asked to respond to the additional questions. They were also given the opportunity to review and confirm the final transcript. This process took approximately 20 minutes and was recorded via a digital recorder. The interviewer again transcribed the interview for further analysis.

### **Data analysis**

The data analysis was done in two stages. The first stage of data analysis was to describe the discourse of PE. The author consolidated the interview data to provide a view of the PE discourse. All the authors went through the data independently and separately to group common concepts into categories. The categories were compared to create themes (Maykut & Morehouse, 1994) based on two broad themes guided by the interview questions: What was the perception of PE? What do you think and feel towards PE?

The second stage of data analysis was to reveal the distinctive epistemological structure that governs discourse of PE classes formed within primary school students in Singapore. When discourse emerged and surfaced, many causes are interlinked for it to happen. According to Foucault (1972), the main focus of question does not fall on the discourse itself; rather, how the discourse is formed;

*“these pre-existing forms of continuity...must be suspense...we must show that they do not come about of themselves, but are always the results of construction the rules of which must be known, and the justifications of which must be scrutinized” (p. 25).*

In other words, the authentication of the formation of the PE discourse done in the first stage of analysis would not be the centre of the question; the lesser-known relationships between the objects should be scrutinized to provide a better understanding on the structure of the discourse formed. Thus, the second stage of analysis focused on identifying the relationship between objects of the discourse of PE based on the archaeological analysis. According to Foucault (1972), the archaeological analysis is expressed through various distinct elements such as *the status of individuals, the institutional sites as location and space, and the situations by the position of individuals.*

### **Results**

#### ***Discourse of PE classes spoken by primary school students***

The data collected can be broadly divided into two sections: perception of PE, and thoughts and feelings towards PE. The first section was derived from students' perception of PE, in which students shared what they had experienced in their PE class over three time periods (i.e. during the first two years of school in P1 and P2, the next 2 years in P3 and P4 and finally in the final years of primary school in P5 and P6). The second section focused on students' thoughts and feeling towards PE classes. Students shared their thoughts and feelings about PE. Students also deliberated on the purpose and benefits of participating in PE classes.

#### ***Perception of PE classes***

*Health and fitness.* One of the predominant reasons to participate in the PE class cited by the students was to be healthy and fit. Students believed that it was essential to be healthy and fit, which their PE teachers and their family members reportedly advocated. As such, they believed that they could stay healthy and fit by engaging in physical activity and sports during PE classes. More importantly, Student D pointed out that although it was

important to exercise to be fit and healthy, it might be a challenge due to the heavy load of schoolwork. In this case, PE classes offered an excellent opportunity to exercise amidst the busy schedule. This may be the reason that students regard PE classes highly.

“For me, it’s important because erm.. for my age right now it’s important, it keeps us fit. Plus, I don’t really have time to exercise. So when having PE lessons every week, it actually makes us feel more energetic and fit.” – Student D

*Stress reduction.* Related to the issue of health and fitness, students also cited PE class as an opportunity to reduce their perceived level of stress. All of the students agreed that the primary source of their stress was from schoolwork, although a few students noted that family issues may also contribute to stress. Students regarded PE class as a form of relief from the stress. They are able to engage in activities with their friends and that would lift their mood. In addition, having a PE class in between other academic classes can help students in their learning. The PE class provides a break for students. Consequently, they are able to focus better on their learning when they return to their classes after a PE class.

“I feel like my stress had already gone. And very fun during the PE class and forget the stress.” – Student A

*Values and skill learning.* Students believe that besides being fun, PE classes allow them to learn new skills which will be beneficial for them in future. For example, Student C noted that what he learnt in earlier PE classes allowed him to do better in sports.

Student A believed that she was able to share her knowledge of games she learnt from her PE class with her siblings. Students generally agreed that their PE teacher was the primary source for learning skills and game concepts. None of the students had any other formal instructions in sports or games outside of their PE class although a few students mentioned that they had family members who would teach them some sports and games. Interestingly, some students noted that they learned from their friends who are more proficient in the sport.

“And sometimes it’s our friends because when we see our friends doing it right, we will sometimes ask them.” – Student C

A few of the students also managed to identify the values that they learnt through PE classes. For example, students learned about the spirit of sportsmanship through the various competitions during PE classes or friendly matches during the school sports day. Other values that students learnt and were able to provide examples in their responses include responsibility, self-confidence and teamwork.

“If they have won I will actually erm.. congrats them because it actually doesn’t matter if you win or lose. It’s just a friendly match. So if sometimes my friends erm.. are too mad because their team lose, then I will actually try to cheer them up.” – Student D

*Bonding.* Students had abundant opportunities to interact with their friends during a PE class. It was not unexpected that students responded that they participated in PE classes to enjoy the interaction and bonding with their friends. Furthermore, interactions between friends were also important for students to learn values like teamwork and being respectful.

### ***Thoughts and feelings towards PE class***

*Fun and enjoyable.* Students, in general, agreed that the PE classes they had were fun and enjoyable. Students conceded that the activities in the PE class in earlier years were relatively more straightforward than those in later years. However, they did not feel that those activities were less fun.



“P1/P2 more simple, but then very fun also” – Student G

There were several reasons for students to perceive PE classes as fun and enjoyable. The most commonly cited reason was that the activities in PE classes were inherently fun and enjoyable.

“I think it’s fun because I love sports and I love to play soccer” – Student D

In addition, students enjoyed interacting with friends during the PE class. Most activities during the PE class involved some form of interaction. For example, students were grouped in pairs or teams for practising of game skills or matches. These interactions with their friends in fun activities contributed to the positive impression of PE classes.

*Excitement.* Students expressed a sense of anticipated excitement for PE classes. For example, Student E would become excited when the PE teacher was going to conduct a PE class in his favourite sport.

“Like it is my hobby to play basketball, and then the teacher is conducting the basketball lesson, I’ll be very excited.” – Student E

In particular, when students enjoy their PE classes, they will be more likely to be excited about future PE classes.

“I felt excited when I’m having PE class. Because during PE class erm.. is very fun. Like sometimes when something (the class was) very boring, then when teacher says (it) is PE time, then everyone will not feel boring, and then become excited.” – Student E

While students have varied preferences for activities during their PE classes, they were all considered to be fun and enjoyable.

*Challenging.* Just like any other learning process, it is reasonable to expect that some students may experience challenging moments. Gymnastics was most frequently cited as an activity that students faced challenges when learning the movements. In some instances, students were able to overcome the challenge with the help of their friends.

Student H: We learn how to really jump high, and I remember I tried to jump high, but I failed because it’s hard for me and my friends can do it so well.

Interviewer: So, what did you do after that? And what happened next?

Student H: I asked my friend how they jump high, and I learn from them, and now I can jump high.

Despite being challenging, students often found a sense of confidence and enjoyment when they managed to overcome the challenge.

Interviewer: What activities did you do during the P5 camp?

Student B: We need to hold the string (rope) and come down.

Interviewer: Hold the string (rope) to come down?

Student B: Yeah. Like here have a wall, then we at there, then we need to use a string (rope) to slowly go down to the floor (ground).

Interviewer: Were you afraid?

Student B: Yes. Very scared!

Interviewer: But why would you still do it when you were scared?

Student B: Because I want to try... I want to overcome my fears... I feel very difficult, like I don’t want to do it already when I’m at the middle.

Interviewer: When you finally did it, how did you feel?

Student B: Yes! I want. I say I want to do one more time.

Interviewer: Do you feel more confident after going through this process?

Student B: Yes!

The positive feelings associated with overcoming the challenges, as well as the opportunities to bond with friends in moments of need, contributed to the positive experiences during a PE class. This, in turn, further fuelled the anticipation of excitement for the student to participate in future PE classes.

### ***Distinctive epistemological structure that governs discourse of PE classes***

Responses from students provided a clear sense of the discourse of PE classes. The next step is to examine beneath the surface to understand how such discourse is formed. Based on the responses given by the students, we identified PE experiences, emotions towards PE class, and the purpose of PE class as the objects for the PE discourse. Based on Foucault's archaeological discourse analysis, in order to understand the links between these objects, we need to identify the modalities of enunciation, namely the subject who speaks the discourse, the institutional sites, and the position of the subject. Based on our findings, we identified the primary school students as the subject, the primary school as the institutional site, and primary school students as a future generation as the position of the subject. In the following section, we will examine these enunciative modalities in closer detail.

### ***Primary school students as the speaker.***

*Primary school students who are qualified to speak.* The subject of the discourse is a concern with "who is qualified to do so?" (Foucault, 1972, p. 50). The present study explores the PE discourse formed within the primary school students in Singapore. Naturally, the subject who is qualified to speak the discourse in the present study are the primary school students. Another factor that supported the status of the subject is that primary school education is the beginning of formal education in Singapore. The Singapore government implemented compulsory education in 2003 to ensure that citizens of Singapore are equipped with basic knowledge and skills to be a productive member of society, as well as to develop a national identity (MOE, 2017a).

According to the Compulsory Education Act (Cap 51), all Singaporeans between 6 to 15 years old are required to attend a national primary school (MOE, 2017a). In other words, though the Ministry of Education provides pre-school education, it is not compulsory for parents to enrol their child or children into pre-schools. Consequently, the primary school may be the first formal education institution for all Singaporean children. In terms of PE, it is evident that there are differences between the curriculum in pre-school and primary school education. PE is incorporated as a stand-alone subject in the primary school education curriculum, encompassing the learning of physical activities, exercises, and sports. In contrast, pre-school PE focuses on developing motor skills of students through various physical activities. Taken together, primary school students are therefore in the position to be qualified to speak on the discourse of PE as they are the embodiment of early formal and systematic learning of physical literacy through PE in Singapore.

*Primary school students who have the right and authority to speak.* When determining the subject of the discourse, it is essential to recognize the 'right' and 'authority' to speak. "It also involves a system of differentiation and relations...with other individuals or other groups that also possess their status" (Foucault, 1972, p. 50). In the present study, the primary school students had the *right* and *authority* to speak on the PE discourse.

Older students, for example, those who are currently studying in secondary schools, have also experienced primary education PE classes. However, as they are also exposed to secondary education PE, which is considerably different from the primary education PE in terms of the depth of studies, this exposure may produce a different discourse of PE. Thus, in the present study, the primary school students have the 'right' and 'authority' to speak as compared to students in other demographic groups.

*Primary school students who have specific criteria to speak.* According to Foucault (1972), when identifying the subject, we also need to question what criteria the subject possess that makes his response valid. In the present study, P5 and P6 students were selected instead of P1 and P2 students as the former have gone through at least four years of PE in primary school as compared to the latter who have just started on their primary school education. Differences in years of PE classes may produce a different discourse of PE, even though both groups are within the same primary education system.

For example, the PE syllabus for the early years in a primary school (i.e., P1 and P2) emphasise on fundamental skills development. 50% of the entire year is focused on fundamental movements and 40% on educational gymnastics. Interviewing students from P1 and P2 may only be able to unearth the discourse for only part of primary school PE. In comparison, students from P5 and P6 would have experience at least 4 to 5 years of PE classes within the primary school. They would have advanced from an emphasis on fundamental skills development to the introduction of sports (e.g., track and field) and games concepts (e.g., basketball, volleyball, captain's ball, et cetera). This is because sports and games constitute 40% to 50% of the entire year for PE from P3 to P6. The discourse of PE will be different for students in P5 and P6 as compared to students in P1 and P2. Such differences in years of experiences give authentication to the P5 and P6 students as the speaker of the PE discourse formed in primary schools in Singapore.

### ***The primary school as the institutional site***

Foucault (1972) described institutional sites as the place “from which this discourse derives its legitimate source and point of application” (p. 51). According to former Minister for Education Mr. Heng Swee Keat, “schools are the centre of action in our education” (Heng, 2012). As such, the primary schools are the institutional site where the discourse is formed. Primary schools provide the following support for the PE lesson to take place.

*Primary schools provided the infrastructure for PE.* Primary schools provide the venue for the PE lessons to take place. Following the recommendation from the PERI (2009) report, the Ministry of Education (MOE) had pushed for the building and upgrading of infrastructure in primary schools in line with the effort to promote holistic education. An indoor sports hall would be built in every school to facilitate PE lessons (MOE, 2006). With the indoor sports hall, PE lessons would not be affected by inclement weather.

Another advantage of having an indoor sports hall is providing more flexibility with respect to the timing of PE lessons. Schools would be able to schedule PE lessons in the late morning or noon. This would not be feasible without an indoor venue due to the risk of overexposure to the sun, which could lead to heatstroke. Besides that, each indoor sports hall consist of “basketball court superimposed with four badminton courts, a volleyball court and a netball court” (MOE, 2006), offering more options to the schools to design and plan the PE lessons.

The flexibility of infrastructure is especially crucial for Singapore schools. Singapore is ranked third in population density in the whole world in 2015 (World Bank, 2017). With limited space, careful planning is necessary. Thus, multipurpose facilities are instrumental in Singapore as it can support the variety of activities specified in the PE syllabus.

*Primary schools provided the equipment and teaching material.* Other than the infrastructure, the primary schools also played an essential role in providing the necessary equipment and teaching material for the PE lessons. The PE syllabus for Singapore schools includes a variety of activities, games, and sports. For example, equipment such as hula-hoops and tunnels are required to set up an obstacle course to develop fundamental



movements during P1 and P2. Different types of mats and balancing beams are needed for gymnastics, while the various sports require different sets of equipment.

In addition, most equipment is customised for children in this age group due to their smaller physical size compared to adolescents and adults. The equipment (e.g., badminton racket, floorball sticks, soccer goal post) for primary school students are usually smaller than the ones used in secondary schools.

*The primary schools provide autonomy in PE classes.* According to the interviews in this study, various activities based on the PE syllabus were reported for the discourse of PE. The PE syllabus was designed and prepared by the Curriculum Planning and Development division within the MOE. The key role of the division was to design and review the national syllabus as well as the assessment for subjects (MOE, 2017b). The PE syllabus was produced in 2005 and implemented in 2006, which featured the continuation of the game-centred-approach (GCA) from the 1999 PE syllabus (MOE, 2005). The 2006 PE syllabus provided a detailed illustration of the scope of the curriculum and a sample year plan that demonstrated the progressively sophisticated curriculum, which suited the developmental level of the children. The curriculum in lower primary is primarily focused on fundamental skills development, progressing to games with an emphasis of both correct execution of movements and clear understanding of the games at the upper primary level. Though the PE lessons in primary schools had to follow the PE syllabus produced by MOE, the syllabus contained an element of autonomy for PE teachers. There is a list of games included in the PE syllabus based on three main categories i.e. territorial, net/wall, and striking and fielding games. PE teachers have the liberty to choose the activities for their lessons. Hence, in this study, P6 students from different schools reported different activities in their PE classes.

To support holistic education and recognise the diverse educational settings in Singapore, MOE had pushed for needs-based resourcing, where more resources were directed to help students with slower progress and school with lower enrolment. In addition, MOE had given autonomy for the school to customise their program to suits the needs of their students, recognizing the importance of diverse talents and holistic education. In terms of supporting the autonomy in running the PE lessons, the MOE had given the schools the power to “vary the design of their sports hall to match their students’ needs” (MOE, 2006).

### ***The position of primary school students as the future generation***

After identifying the status of the subject, and the institutional site where the PE discourse is formed, the next important step is to understand the position of the speaker. “The positions of the subject are also defined by the situation that it is possible for him to occupy in relation to the various domains or groups of objects” (Foucault, 1972, p. 52). In Singapore context, the Singapore government had been clear about the importance of children as the future generation that would continue to develop the nation, and education plays an important role in shaping the future of the children.

*“Education is a long-term endeavour. A child entering Primary One next year will start work around 2030. What must we do right in Education now and in the next 20 years, so that our children will have a bright future and can fulfil their aspirations?”* (Heng, 2011).

The Singapore government has been focused on education, making changes and updates to the education system to stay relevant since the 1990s (PERI, 2009). In 2008, PERI committee was set up to review the primary school education system to examine whether it was able to support the diversifying secondary school education, and establishing improvements to further increase the quality of primary school education in Singapore (PERI, 2009). The PERI committee found that the primary education system in Singapore was robust and regarded highly internationally, and provided recommendations to enhance the primary school education system.

Recognising the importance of moving forward ahead of time in a fast-changing environment, MOE introduced the 21<sup>st</sup> Century Competencies (21CC) framework in 2009.

*“Globalisation, changing demographics and technological advancements are some of the key driving forces of the future. Our students will have to be prepared to face these challenges and seize the opportunities brought about by these forces”* (MOE, 2015).

With 21CC as a guiding framework, MOE designed the Desired Outcome Education (DOE), listing the ideal attributes that every Singaporean should achieve upon the completion of each stage of their education. Specifically, by the end of primary school education, a student should:

- be able to distinguish right from wrong;
- know their strengths and areas for growth;
- be able to cooperate, share and care for others;
- have a lively curiosity about things;
- be able to think for and express themselves confidently;
- take pride in their work;
- have healthy habits and an awareness of the arts;
- know and love Singapore (MOE, 2015).

PE plays a vital role in developing values that are central to the 21CC and achieving the key outcomes during primary school education. We have identified a few key outcomes from the findings in the present study.

*Developing healthy habits.* The first step to developing healthy habits is to learn how to do it. In PE, students learn about various physical activities and sports. This will enable them to participate in sports during their leisure time, creating an opportunity for a physically active habit to form. This is indeed the case as a few students noted that PE helped them cultivate the habit of exercising.

Another interesting finding in the present study is that students reported utilizing PE lessons as a mean to reduce stress. The link between exercise and improving psychological health is well-established. For example, a review found that physical activity improved the well-being of children and adolescents facing depression, anxiety, self-esteem, and cognitive functions (Biddle & Asare, 2011). It seems that students in the present study not only benefitted from PE lessons in developing healthy habits to exercise but also utilise PE lessons to improve and maintain their psychological health.

“I enjoy PE class and it actually reduces stress because during P6 life, I am always busy with the study and revision paper. So when during PE, I will try to enjoy it.” – Student D

*Cultivating lively curiosity.* According to self-determination theory (SDT; see Ryan & Deci, 2000), when a person is intrinsically-motivated, there is a sense of innate curiosity to search for “novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn” (p.70), with enjoyment being a crucial factor in cultivating intrinsic motivation. Decades of studies had shown that enjoyment predicted intrinsic motivation (e.g., Ryan, Frederick, Lepes, Rubio, & Sheldon, 1997), and in turn, intrinsic motivation leads to exercise participation (e.g., Teixeira, Carraca, Markland, Silva, & Ryan, 2012). It was evident that students in the present study reported a range of positive emotions during PE class, such as having fun, enjoyable and happy. Such positive feelings towards PE has fuelled the continuation of learning in sports and exercise.

“I have learned how to run even faster, and how to throw the ball properly. I think it is fun because I love sports, and I love to play soccer.” – Student C

“I think it’s (PE) very enjoyable, and then I get to learn new things.” – Student G

*Knowing individual strengths and areas for growth.* Besides learning how to exercise and do sports, another critical aspect of PE is to provide opportunities for the students to face challenges and facilitate their growth by overcoming the challenges. As they learn, they will also start to enjoy the activities when they become proficient at it.

At the same time, it is expected that there will be some activities that students may find challenging, or perform poorly when compared to their peers. Instead of giving up, students reported that they often approach their peers to seek help and advice in order to improve their performance.

“I feel like I want to be the best. Some of my friends are so much better than me, so I keep training harder and try to be the best.” – Student C

## Discussion

The present study set out to portray Singapore’s PE classes formed within the primary school students. Interviews with eight primary school students who were in the upper primary showed that students experienced a wide range of activities throughout the years with increasing level of difficulty and complexity that matched their physical and cognitive developmental phase. Albeit some differences in activities reported by students from different schools, these activities reported were in accordance with the national PE syllabus produced by the Ministry of Education Singapore (MOE). Overall, students reported positive feelings associated with PE lessons they had over the years. Students believed that PE lessons were fun, exciting and enjoyable. Even though students encountered challenges in certain activities or sports, they were able to overcome such challenges with help from their PE teachers and peers. The sense of accomplishment overcoming the challenges had in turn added to the positive feelings towards PE lessons. Students also recognised the importance and purpose of PE. Students believed that improving health and fitness was one of the main purposes of PE as they reported that PE lessons allowed them to exercise and engage in sports.

Interestingly, another main purpose of PE reported by the students was to reduce stress. Students regarded PE lessons as a much-anticipated break from the regular classes. Through participating in various physical activities, students felt relieved from their stress, and this helped them to focus when they returned to their classrooms for their subsequent lessons. In addition, students recognised the importance of PE lessons in learning essential skills, which they believed would help them in developing a healthy lifestyle. Some students were able to identify essential values they learned through PE class, even providing examples depicting what those values mean. Taken together, it seemed that the PE program in Singapore primary schools could be considered as a successful case study in which the PE had achieved its aim, which is to “develop students’ motor and games skills and equip them with the knowledge, skills and attitudes to pursue and enjoy a physically active and healthy lifestyle” (MOE, 2005, p. 2). Students were introduced to various physical activities and were equipped with the skills to engage in sports effectively. More importantly, they consistently reported positive emotions towards PE and acknowledged the importance and values in PE. These allow students to have a good foundation in developing an active and healthy lifestyle.

Merely investigating the PE discourse formed within primary school students is not sufficient to understand why the present PE looks like how it looks like today. It is important to reveal the epistemological structure in order to understand how such PE discourse was constituted, or in Foucault’s (1972) words, “the law operating behind all these diverse statements, and the place from which they come” (p. 50).

In the archaeological analysis, the primary school students were established as the subject of the PE discourse, with the position of the subject as the future generation, while the primary school was established as the institutional site where the discourse was formed. Systematic and formal PE begins in primary education. Thus, primary school students represented the embodiment of the earliest systematic and formal PE in Singapore. Primary school students who were from the upper primary level were established as the subject as they had

gained enough experience to produce more encompassing PE discourse as compared to students from the lower primary.

For the institutional site, primary schools were given the necessary infrastructure, equipment, and teaching material that were customized to the needs of the schools so that the PE lessons could be carried out effectively in accordance to the PE syllabus set by the MOE.

Lastly, primary students were viewed as the future generation of the nation. The central purpose of education is to produce future generations to continue to move the country forward. With 21CC as the guiding framework and DOE as the direction, students in the present study manifested some key outcomes of the primary education. Systematic learning of sports and exercise through PE had equipped students with the necessary skills and knowledge to stay healthy and fit. The active participation in exercise and sports during PE subsequently instil the belief of the need for regular physical activity to maintain good health. All these had encouraged individuals to develop and maintain healthy habits in their daily life.

The autonomy given through the MOE to schools and teachers had a direct implication on cultivating the curiosity of learning in students. Research (e.g., Ryan & Deci, 2000) had shown that autonomy is one of the main components in developing intrinsic motivation in learning. Besides intrinsic motivation, another critical factor for learning is through overcoming challenges. Facing obstacles provide valuable opportunities for individuals to understand their own strengths and shortcomings, to work on their weaknesses and at the same time learn to utilize their strengths in their effort in overcoming the challenges.

The discoveries and establishment of epistemological structure provided an important understanding of the parties involved in constituting the formation of PE discourse. In the present study, the PE discourse seemed to be in accord with the education direction set by the MOE, where some of the key outcomes for primary education were achieved. It is noteworthy that some students reported learning some core values of the 21CC framework (e.g., respect, responsibility, and resilience) through PE.

Currently, the objectives of PE is largely concerned with physical literacy while the potential of PE in inculcating character and values development had been largely overlooked. There is a large body of research studies that have demonstrated the potential of PE in developing students' character, be it using pedagogy strategies (e.g., Camiré & Trudel, 2010; Giebink & McKenzie, 1985; Gould, Flett, & Lauer, 2012; Romance, Weiss, & Bockoven, 1986) or using PE intervention (e.g., DeBusk & Hellison, 1989; Gibbons, Ebbeck, & Weiss, 1995; Miller, Bredemeier, & Shields, 1997; Wandzilak, Carrol, & Ansorge, 1988). The fact that students in the present study could identify some values learned through PE class lend support to the argument that with more emphasis on character development, PE could achieve much more than just improving students' physical literacy.

### ***Limitations of the research and recommendations for future research***

It is imperative to note that the findings in the present study may not be representative of the wider Singapore population; the purpose of qualitative research is not to establish generalizable findings but to present the depth of the issue. It should be noted that the students recruited in the present study were from primary schools located in the western district. Though Singapore is not a large nation, students from different districts may reveal different PE discourse as each school has a certain degree of autonomy in preparing their classes to suit students' need. Another limitation of the present study is the data collected from primary school students were retrospective in nature. It is common to hear from students that they could not fully remember all the activities they had throughout the years, thus affecting the richness of data in presenting the PE discourse.

Following the discovery of the epistemological structure of the PE discourse, future studies could examine the efficacy of PE in character and values development. Experimental studies could be done to investigate the suitable PE structure that would facilitate 21CC values development during PE lessons. The empirical data from

intervention studies could provide valuable insights for the MOE in restructuring the existing PE syllabus, which was last done more than a decade ago.

## Conclusion

This study offers a unique look at PE in primary school education in Singapore. By discovering the PE discourse, we could conclude that the PE had achieved a successful status in terms of reaching objectives specified in the syllabus and producing key outcomes in accord to the guiding framework of the education system in Singapore. Establishing the epistemological structure that constitutes the PE discourse via Foucault's archaeological analysis offered a clearer understanding of how different parties would affect the formation of the PE discourse. It is hoped that such discovery will provide valuable perspectives to policymakers in their efforts in redesigning PE in future.

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