




# The Relationship Between Positive Education, Learning with Happiness, Motivation in Learning and Academic Performance in Hong Kong

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**Abstract.** Research has shown a relationship between learning with happiness and motivation in learning, but the relationship between these aspects of learning and academic performance is not clear. This study's purpose was to understand these associations in sample of first grade students in Hong Kong. The students' parents completed a questionnaire designed for this study. The overall score for constituted two subscales (learning with happiness, intrinsic motivation in learning) that were moderately correlated. Two groups of first graders (N = 155) were assessed for the first time in either the 2018/19 and in 2020/21 school year and followed to second grade in the 2019/2020 or 2021/2022 school year. However, academic performance between first grade and second grade in the academic year 2018/19 was not significantly different, in the academic year 2020/21 second grade academic performance was better than first grade. The results have implications for understanding longitudinal effects of happiness in in learning, motivation in learning, and internal/external motivation in predicting academic performance. This study is significant because it is the first study in this line of research to examine first graders.

**Keywords:** positive teaching, positive education, positive learning, Happy learning, academic performance.

## 1 Introduction

The level of happiness among children in Hong Kong has been decreasing over the past decade, as evidenced by the declining scores on the Hong Kong Children Happiness Index. The Centre for Public Policy Studies (CPPS) at Lingnan University has been administering this survey annually since 2012 to track and measure the level of happiness among children in Hong Kong on a scale of 0 to 10. The Index score dropped from 6.74 in 2014 to 6.49 in 2015 (Ho & Early Childhood Development Research Foundation, 2016), with the most significant decreases observed in the age groups of 8 to 9 and 14 (Ho & Early Childhood Development Research Foundation, 2016). It is noteworthy that the score

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contribute to children's unhappiness in Hong Kong. Parents in Hong Kong are nervous about their children's future and sometimes pressure students to succeed in their studies, resulting in lower happiness (Ho, 2022). The 2021/2022 academic year in was during the period of the Covid-19 pandemic. The Happiness Index of Hong Kong Children was 6.77 points, 1.17% lower than the Index of 6.85 in 2021.

The term "happy school" refers to a school environment where students, teachers, and staff members feel positive, engaged, and content. It is a school where everyone feels secure, supported, and tolerate, and where a strong sense of community and belonging is fostered. A happy school also prioritizes student well-being and seeks to cultivate positive relationships between students, teachers, and staff. This type of school is often characterized by a focus on social-emotional learning, a positive school culture, and a commitment to creating an environment where students can thrive both academically and personally.

In 2018, Singapore announced that starting in 2019, primary school students in first and second grades would no longer to academic assessments. This means that students would not be evaluated in this manner. Moreover, by the end of 2021, tests would also be eliminated, and mid-term exams for primary students in third and fifth grades, as well as secondary form three students would be gradually phased out. Singapore's education system is comparable to Hong Kong's, where there are two major exams every year: a mid-term exam and a final exam, as well as tests between examination. In 2021, China implemented an education policy that abolished all primary one and primary two assessments. Additionally, primary schools would no longer conduct mid-term exams instead only one final exam would be annually (HongKong01). The Education Bureau of China also proposed that primary schools delay, reduce, or cancel tests and assessments in 2022. It appears that Hong Kong may follow in the footsteps of mainland China and Singapore, as there is an opportunity to abolish assessments for first and second-grade students in primary schools.

Happy schools and positive education are important today because students in Hong Kong have experienced stress and low happiness during the Covid-19 period (Zhao et al., 2020). The purpose of a happy school is that students can study happily without external pressure like huge amount of homework and exam, and hopefully enhanced interest in learning. Researchers in Iran who designed a happy learning environment in a primary school reported that the happy school environment was negatively correlated with student stress (Jamebozorg et al., 2017). A happy learning environment should reduce absenteeism, late arrivals to school, restlessness and boredom in class, and mental and physical illnesses, eventually improving children's outcomes (Jamebozorg et al., 2017).

However, it remains unclear whether schools that prioritize happiness are associated with decreased or increased motivation to learn. There are several definitions of motivation. Motivation is defined as the driving force that compels a person to take action in order to achieve a goal or fulfill a need or expectation (Gopalan et al., 2017). According to Dickinson (1995), "motivation refers to the choices people make as to what experiences or

goals they will approach or avoid, and the degree of effort they will exert in that respect." Deci and Ryan (1985) categorized motivation as intrinsic or extrinsic, asserting that learners who are interested in learning outcomes for their own sake (intrinsic motivation) are more likely to become effective learners whose behavior is shaped by outside factors (extrinsic motivation) (Dickinson, 1995). Self-determination theory (SDT) holds that self-determination and autonomy are forms of intrinsic motivation (Hayamizu, 1997; Law et al., 2017). If students are driven by personal interest and can work independently, then their behavior is assumed to be driven by intrinsic motivation.

Although intrinsic motivation is probably most important for successful learning, external motivation can also be helpful (Corpus et al., 2012). In a study conducted in three secondary schools in Malaysia, Form Four students were asked about their extrinsic motivation for learning mathematics (Shahrin & Jamaludin, 2010). More than half the students agreed that the external sources of motivation included their peer group (64.6%), facilities (59.4%), teachers (57.9%), and teachers' helping students when they faced problems in learning (53.2%), and teaching language (52%) (Shahrin & Jamaludin, 2010). Less than half agreed that the school environment was a source of motivation for learning (43.4%), and only 32% of students agreed that the family was a motivating factor.

The current study was conducted in a primary school in Hong Kong that has created a "happy school" and positive education environment for children. The school has a garden and does not have examinations for first grade students so that they can adapt well to primary school life without pressure. Anxiety and tension can make adaptation more difficult, and testing is only relevant for academic performance, ignoring children's experience of learning and what motivates them in learning. This study investigated the associations among learning with happiness, motivation for learning, and academic performance in first graders in this school.

## 1.1 Happy school

Kuurme and Heinla (2020) studied the meaningful school experiences of 7th and 8th graders from Estonia. The participants were 139 students in 7th and 8th grader (73 boys and 66 girls; age range 13 to 15 years). Most of the students ( $N = 68$ , 49%) mentioned school subjects are great experiences in learning something new, 51 students (37%) think that self-appropriate skills are great experiences, and a few students mentioned general knowledge or skills necessary for life ( $N = 7$ , 5%), only one student think that grading is important in learning. They think that social skills ( $N = 35$ , 25%) and self-relevant skills ( $N = 11$ , 8%) are influence of learning experiences on personality development. They also explored negative things about school, such as school organization (15 students) with many lessons, unnecessary subjects, heavy workload and meaningless events; bad teachers (15 students) who cannot teach and do not help the students, and boring classes; school environment (10 students), such as not being allowed to use the phone, bad food, and an obligation to wear a school uniform. On the other hand, there were 50 students

who reported that a good teacher is the most important aspect for meaningful lessons that motivate them to learn (Kuurme & Heinla, 2020).

According to Jamesbozorg et al. (2017) teachers and students are important in a happy school characteristic, a study was conducted with 200 students (100 girls and 100 boys) from five primary schools in the city of Kermanshah, China during the school year 2014-2015. The results showed a significant negative correlation between a happy school environment and psychological disorders and stress. Several studies found that both internal and external motivation were associated with academic success.

The research was an exploration of intrinsic and extrinsic motivation in relation to academic performance. 1,563 private and public secondary school students aged 12 to 17 were randomly selected from Oyo state in Nigeria to complete the Intrinsic and Extrinsic Motivation Scale (Lepper, et al. 1997). Ogundokun and Adeyemo showed that either intrinsic or extrinsic motivation affects academic performance (Ogundokun & Adeyemo, 2010).

Yahaya et al. (2010) studied extrinsic motivational factors in a sample of 196 form four students from secondary schools in Negeri Sembilan. Extrinsic motivational factors (peer group, teacher, environment, family, and language) were positively associated with academic performance in mathematics, with teacher being the most influential external factor (Yahaya et al., 2010).

Corpus and Wormington (2011) studied motivation in three groups, high intrinsic, high extrinsic; high intrinsic, low extrinsic; and low intrinsic, high extrinsic. The participants were 490 third- to fifth-grade students in an academic year (in fall and spring) The quality of motivation (i.e., the ratio of intrinsic to extrinsic motivation) was more important than the amount of motivation (i.e., as a predictor of intrinsic and extrinsic motivation). The researchers noted that quality motivation is not directly related to high achievement but contributes to gains in achievement over time. A non- competitive school context can foster higher motivation and fulfill students' need for competence (Corpus & Wormington, 2011).

Ayub (2010) studied 200 college students (100 males and 100 females) aged 18 to 21 years old who had completed high school in Karachi, Pakistan. The participants completed the Academic Motivation Scale. The result showed that Students with high intrinsic motivation may be extrinsically motivated at the same time as future goal orientation.

Lemos and Verissimo (2014) found that the reasons for intrinsic and extrinsic motivation are not contradictory, and they can coexist. The researchers studied two groups of participants: a cross-sectional group (200 students) and a longitudinal group (200 students) in third grade to sixth grade from eighteen public schools in northern Portugal (Lemos & Verissimo, 2014). Extrinsic motivation may not necessarily undermine intrinsic motivation. Teachers can motivate students' intrinsic motivation, and at the same time they can provide students with extrinsic motivation.

## 2 Theoretical Framework

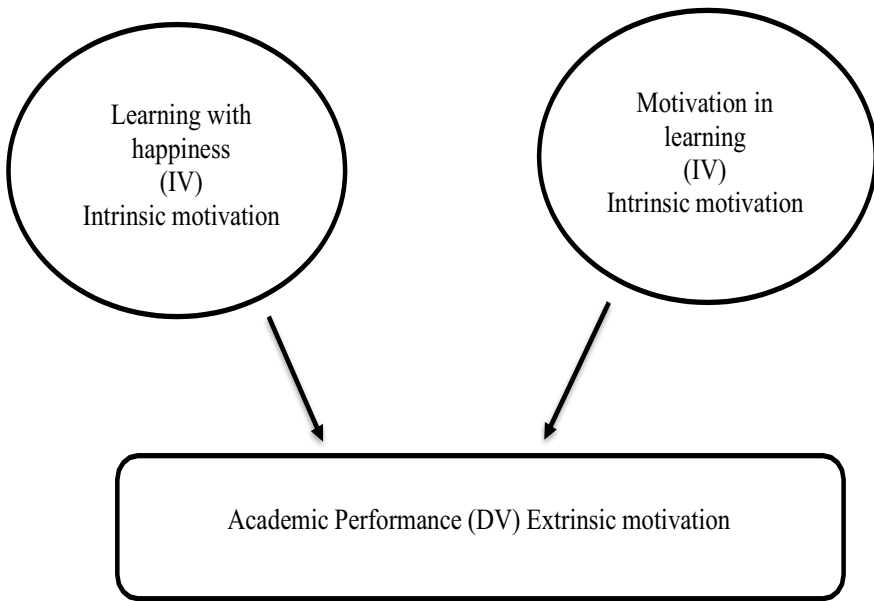
In Latin, the word for motivation derives from the verb "to move" (Tansky, 2003). The term motivation represents the process of arousing, directing, energizing, and sustaining behavior and performance (Luthans, 1998). Motivated behavior is defined as behavior that is energized, directed, and sustained in organizational settings. Many researchers distinguish intrinsic and extrinsic motivation. Intrinsic motivation occurs without external controls, while extrinsic motivation is driven by external forces (Ogundokun & Adeyemo, 2010). A happy school is likely to have the following characteristics: 1) active and dynamic teachers; 2) active students; 3) lessons and educational programs; 4) purposeful and systematic planning; 5) management and organization; 6) organizational climate; 7) physical and environmental structure; 8) educational facilities and equipment. One study based on this model was conducted with 200 students (100 girls and 100 boys) from five primary schools in the city of Kermanshah, China during the school year 2014-2015 (Jamesbozorg et al., 2017).

Intrinsic motivation has been defined as personal curiosity or desire for an activity as the driving force for behavior. Intrinsic motivation is associated with persistence and effort in the absence of rewards or other external feedback (Ogundokun & Adeyemo, 2010). Intrinsic motivation may be evident when a teacher and student set goals together that arouse the student's desire and curiosity; these internal states then motivate the child to study and learn. Setting goals together should be more effective in promoting internal motivation than the goals being set only by the teacher. Extrinsic motivation has been defined as what drives a variety of behaviors in which a student engages not because the behavior is inherently interesting (Deci, 1975) but because the student anticipates some gain (Ogundokun & Adeyemo, 2010). Most of the time, extrinsic motivation comes in the form rewards. For example, a student may study hard to attain good grades, a form of reward. Or they may study hard to gain their parents' favor, another form of reward.

### 2.1 Statement of the Problem

According to a study of young students in Hong Kong (浸信會愛羣社會服務處, 2018), the proportion of primary school third to sixth grade students who suffered from depression in 2018 was 17.6%, an increase of 4.4% compared with 2017, and the proportion of primary students with severe depression symptoms increased from 9.7% to 12.3% in 2017, an increase of 2.6%. More than 10% of all students in the sample reported feeling tired a lot (13.9%), worthless (11.7%), and not wanting to move (10.8%). They reported that the main source of stress came from choice of and adaptation to high school (19.6%), followed by having too little freedom/play time (19.5%), and unsatisfactory academic performance (18.7%). Over a long period of time students' stress can lead to depression (Zhang et al., 2022).

According to Lemos and Veríssimo (2014) the Happy School model aims to provide stress-free learning, promoting students' intrinsic motivation and thus better academic performance. However, no studies to date have documented that a happy school environment increases students' internal motivation or leads students to take the initiative to study on their own. Previous research has shown a positive relationship between intrinsic motivation and academic achievement, but the relationship between extrinsic motivation and academic achievement is less clear (Lemos & Veríssimo, 2014).



**Figure 1.** Hypothesized model linking Learning with Happiness (intrinsic motivation), Motivation in Learning (intrinsic motivation), and Academic Performance (extrinsic motivation).

## 2.2 Purpose of the Study

The purpose of this quantitative research was to examine the relationships among learning with happiness, intrinsic motivation in learning, and extrinsic motivation for learning (academic performance). The study is limited to first grade students in primary schools in Hong Kong. Questionnaires were completed by the parents of all first grade students in the school to measure children's motivation in learning and learning with happiness. Academic performance outcome were provided by the school. The purpose of this study is to investigate the effectiveness of happy school model in primary schools.

## 2.3 Research Questions

**Q1.** Will the school environment affect first-grade primary students and enhance intrinsic or extrinsic motivation to learn?

**Q2.** Will the school environment affect first-grade primary students and be associated with greater intrinsic or extrinsic motivation to learn with happiness?

**Q3.** Will the school environment be associated with first-grade students' higher intrinsic or extrinsic motivation to perform academically?

**Q4.** Is "no exam" an effective way to enhance a happy school environment?

## **2.4 Hypotheses**

According to the extant research and the theoretical framework (8con) for motivation, in a happy school environment, this study tested the follow alternative hypotheses:

**H1a.** The academic performance in first grade will be better than secondgrade.

**H2a.** There will be a positive relationship between learning with happiness and motivation in learning in the first grade of primary school.

## **3 Research Method**

### **3.1 Research Method and Design(s)**

This cross-sectional study used parents' reports of students' 2018/19 & 2020/21 Paired samples *t* tests comparing P1 and P2 (same group of students), and correlations among variables, to measure the associations among motivation in learning, learning with happiness, and a happy school environment with no official exam in grade one.

### **3.2 Sample**

The participants were parents of first grade students in a Hong Kong primary school; academic performance (exam results) were provided by the school. There were 71 and 84 participants in the 2018/19 and 2020/2021 academic years, respectively. Based on an a priori power analysis, these sample sizes met the minimum effective sample size for paired sample *t* tests and correlations.



### 3.3 Happy School Instruments

A self-designed questionnaire was used in this research and it contained a variety of questions related to the child's personal information, academic performance, and learning environment. The questions covered topics such as the child's class and learning performance at school and at home. Additionally, the questionnaire included questions about the child's study habits, motivation, and level of engagement in the learning process. Overall, the questionnaire was designed to gather comprehensive information about the child's academic performance and learning experience. The researchers created the questionnaire for parents to provide insights into their understanding of their child. The questionnaire was divided into two parts: the first part evaluated the level of happiness and learning experienced by the child while studying, while the second part assessed the parents' perception of the child's motivation, whether it was intrinsic or extrinsic. These variables were used to predict academic performance.

#### 3.4 Degree of happiness 3 items (Intrinsic motivation)

The happiness when the child was studying was based on the parent's responses to questions. Items were rated as 1 (extremely unhappy), to 5 (extremely happy).

Sample questions include:

- When discussing school life with my child, he/she feels\_\_\_\_\_.
- My child feels\_\_\_\_\_when communicating/interacting with teachers.
- My child feels\_\_\_\_\_when communicating/interacting with schoolmates.

#### 3.5 Degree of motivation 6 items (Intrinsic motivation)

Parents completed a measure of the child's motivation when studying. Each item were rated as 1 (extremely unhappy), to 5 (extremely happy). Sample questions include:

- When learning, my child feels\_\_\_\_\_.
- When completing homework, my child feels\_\_\_\_\_.

- When doing revisions, my child feels\_\_\_\_\_.

Each item was rated on a 6-point scale, ranging from 1 (never) to 6 (always). Sample stems include:

My child will...

- Take initiative to complete homework by himself/herself.
- Take initiative to do revisions by himself/herself.
- Pack his/her own schoolbag.

### 3.6 Operational Definitions

In this study, the researchers aimed to explore the relationship between academic performance and intrinsic motivation in learning, specifically focusing on the impact of learning with happiness and motivation in learning. To measure academic performance, the researchers operationalized the dependent variable (DV) as an ordinal variable. The independent variables (IVs) were operationalized as learning with happiness and motivation in learning, both of which fall under the umbrella of intrinsic motivation. To measure learning with happiness, the participants rated their level of happiness on a scale of 1 to 5, with 1 being "extremely unhappy" and 5 being "extremely happy." Similarly, to measure motivation in learning, the participants rated their level of motivation on a scale of 1 to 5, with 1 being "extremely unhappy" and 5 being "extremely happy."

### 3.7 Data Collection, Processing, and Analysis

The questionnaires were sent to either the parents or relatives of first grade students, with each student receiving only one copy. This was done to ensure that the data collected was accurate and representative of the child's academic performance and learning experience. They were told that participation was completely optional, and if they did not wish to participate, they could simply not return the questionnaire. The data were analyzed in SPSS 23. First, the strength of correlations among all variables (learning with happiness, motivation in learning with both intrinsic and extrinsic motivation, and academic performance) was evaluated. Then, paired samples *t* tests were used to compare academic performance in 2018/19 and 2020/2021.

### 3.8 Assumptions

Students will not be motivated to study in school due to the pressure of studying. The

main reason for the high pressure is having to take examinations at a young age. Therefore, if students feel pressure and do not study happily, they will not learn actively, and their academic performance will also decrease. Without exams, it is possible to improve learning motivation so that academic performance will improve.

## 4 Results

### 4.1 Descriptive Information on Happy Learning Scores

Table 1 shows the academic performance participants was 2018/19 academic year 84 participants (54%), 2020/21 academic year had 71 participants (46%), there have participants that questionnaire student only required provide class, the mean class of the participants was 2018/19 academic year 56 participants (44%), 2020/21 academic year had 71 participants (56%).

**Table 1.** Happy learning scores by class and year of participation (N=155)

Class	2018/2019	2020/2021
1A	28 students	24 students
1B	28 students	24 students
1C	28 students	23 students
Total	84 students	71 students

### 4.2 Reliability test

The Learning with Happiness questionnaire has two items: learning with happiness, and motivation in learning. Cronbach's alpha was for the overall score was .89, indicating good internal consistency. Table 4 shows that in the reliability test for the questionnaire items ranged from .545 to .986, for the second factor the ranged from .873 to .886.

**Table 2.** Reliability test of items on the Learning with Happiness and Motivation in Learning questionnaire

LHML item	Factor	
	1	2
Motivation in learning (intrinsic motivation)		
1. When learning, my child feels_____.	.545	
2. When completing homework, my child feels_____.	.813	
3. When doing revision, my child feels_____.	.783	
Learning with happiness (intrinsic motivation)		
4. When discussing about school life with my child, he/she feels	.	.886
5. My child feels_____when communicating/interacting with teachers.	.	.877
6. My child feels_____when communicating/interacting with schoolmates.	.	.873
Learning with happiness (intrinsic motivation)		
7. My child will take initiative to complete homework by himself/herself.	.986	
8. My child will take initiative to do revision by himself/herself.	.951	
9. My child will pack his/her own schoolbag.	.868	

*Note.*  $N = 120$ . The measure has nine items, six on Factor 1 and three on Factor 2. The extraction method was principal component analysis (oblimin rotation with Kaiser normalization).

**Table 3.** Correlations among the items for learning with happiness and motivation in learning in 2018/19 (N=56)

Variable	N	M	SD	1	2	3	4	5	6	7	8	9
1. When learning, my child feels	53	3.98	.747	1								
2. When completing homework, my child feels	49	3.53	.868	.792**	1							
3. When doing revision, my child feels	54	3.52	.795	.735**	.844**	1						
4. When discussing about school life with my child, he/she feels	53	4.42	.570	.697**	.773**	.869**	1					
5. My child feels _____when communicating/interacting with teachers.	55	4.47	.604	.692**	.802**	.826**	.835**	1				
6. My child feels _____when communicating/interacting with fellow schoolmates	54	4.24	.642	.753**	.747**	.786**	.821**	.741**	1			
7. My child will take initiative to complete homework by himself/herself	56	3.61	1.246	.804**	.858**	.811**	.804**	.862**	.866**	1		
8. My child will take initiative to do revision by himself/herself	53	3.04	1.441	.841**	.898**	.831**	.848**	.813**	.865**	.934**	1	
9. My child will Pack his/her own schoolbag.	55	3.69	1.260	.784**	.872**	.810**	.826**	.877**	.886**	.927**	.930**	1

\*\* correlation is significant at  $p < .01$  (2-tailed)

\* correlation is significant at  $p < .05$  (2-tailed).

**Table 4.** Correlations among the items for learning with happiness and motivation in learning in 2020/21 (N=71)

Variable	N	M	SD	1	2	3	4	5	6	7	8	9
1. When learning, my child feels	71	4.06	.893	1								
2. When completing homework, my child feels	71	3.24	.992	.571**	1							
3. When doing revision, my child feels	71	3.11	1.076	.484**	.817**	1						
4. When discussing about school life with my child, he/she feels	71	4.59	.729	.343**	.256*	.296*	1					
5. My child feels _____when communicating/interacting with teachers.	71	4.61	.746	.120	.226	.287*	.724**	1				
6. My child feels _____when communicating/interacting with fellow schoolmates	71	4.28	.817	.225	.186	.308**	.601**	.601**	1			
7. My child will take initiative to complete homework by himself/herself	71	2.61	1.634	.388**	.702**	.643**	.127	.105	.018	1		
8. My child will take initiative to do revision by himself/herself	71	1.96	1.429	.416**	.662**	.635**	.203	.105	.026	.880**	1	
9. My child will Pack his/her own schoolbag.	71	2.97	1.512	.319**	.471**	.494**	.210	.091	-.003	.684**	.661**	1

\*\* correlation is significant at  $p < .01$  (2-tailed)  
\*correlation is significant at  $p < .05$  (2-tailed)

In 2018/19, the most relevant is that children take the initiative to do revision and take initiative to complete homework, there was a positive correlation between the two variables  $r=.934$ , the most relevant is that children feel happy when they communicate/interact with teachers and when learning, there was a positive correlation between the two variables  $r=.692$  In 2020/21, the most relevant is that children take the initiative to do revision and take initiative to complete homework, there was a positive correlation between the two variables  $r=.880$ . The most relevant is that children feel happy when they communicate/interact with schoolmates and pack their own schoolbag, there was a negative correlation between the two variables  $r=-.003$ .

#### **4.3 Academic performance for primary school first grade (P1) and primary schoolsecond grade (P2)**

Descriptive statistics showed that the means for each measure in the 2018/19 academic year were  $M \text{ math}(P1) = 78.70$  and  $M \text{ math}(P2) = 73.62$ ,  $M \text{ Chi}(P1) = 72.04$  and  $M \text{ Chi}(P2) = 63.69$   $t=4.59$ . Children in the first grade (P1) performed better in second grade (P2), with two-tailed  $p < .001$ . On the other hand,  $M \text{ Eng}(P1) = 64.49$  and  $M \text{ Eng}(P2) = 66.14$ .  $t = -1.31$ , with no significant difference between P1 and P2, two-tailed  $p = .196$ . There was also no difference between P1 and P2 for general studies,  $M \text{ Average}(P1) = 76.09$  and  $M \text{ Average}(P2) = 76.16$ , two-tailed significance =  $.924$ . Tables 4 and 5 show the results of  $t$  tests comparing academic performance scores at P1 and P2 (2018/2019). (Show table 5 & 6)

For the academic year 2020/21 the descriptive statistics showed that the means at P1 and P2 were  $M \text{ math}(P1) = 62.84$  and  $M \text{ math}(P2) = 70.04$ ,  $t = -3.61$ ,  $M \text{ Eng}(P1) = 63.25$  and  $M \text{ Eng}(P2) = 68.25$ ,  $t = -3.21$ ,  $M \text{ Chi}(P1) = 57.12$  and  $M \text{ Chi}(P2) = 68.77$ ,  $t = -5.30$ ,  $M \text{ GE}(P1) = 79.76$  and  $M \text{ GE}(P2) = 77.44$ ,  $t = 2.23$ ,  $M \text{ Average}(P1) = 65.53$  and  $M \text{ Average}(P2) = 70.20$ . All pair-wise comparisons were significant at two-tailed  $p < .05$ , except for General studies,  $p > .05$ . Tables 6 and 7 show the academic performance at P1 and P2 (2020/21). (Show table 7&8)

**Table 5.** Academic performance on multiple measures at P1 and P2 (2018/19)

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
Pair 1 Math (P1)	81	78.7	14.25	1.58
Math (P2)	81	73.62	15.88	1.77
Pair 2 English (P1)	81	64.49	21.84	2.43
English (P2)	81	66.14	17.38	1.93
Pair 3 Chinese (P1)	81	72.04	21.36	2.37
Chinese (P2)	81	63.69	17.66	1.96
Pair 4 General Studies (P1)	79	89.77	14.06	1.58
General Studies (P2)	79	88.78	9.73	1.09
Pair 5 Average (P1)	81	76.09	15.20	1.69
Average (P2)	81	76.16	11.90	1.32

\* 2 students absent in General Studies

**Table 6.** Results of paired-samples *t* tests comparing the measures of academic performance at P1 and P2 (2018/19)

	<i>t</i>	<i>Degree of Freedom</i>	<i>sig. (2-tailed)</i>
Math (P1) & (P2)	4.19	80	.000
English (P1) & (P2)	-1.31	80	.196
Chinese (P1) & (P2)	4.59	80	.000
General Studies (P1) & (P2)	.74	78	.463
Average (P1) & (P2)	-.10	80	.924



**Table 7.** Descriptive Academic performance (2020/21)

	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>SE</i>
Pair 1 math (P1)	55	62.84	23.90	3.22
math (P2)	55	70.04	22.45	3.03
Pair 2 Eng (P1)	56	63.25	25.52	3.41
Eng (P2)	56	68.57	21.07	2.82
Pair 3 Chi (P1)	52	57.12	21.36	3.63
Chi (P2)	52	68.77	17.66	2.61
Pair 4 General studies (P1)	54	79.76	16.92	2.30
General studies (P2)	54	77.44	16.31	2.22
Pair 5 Average (P1)	56	65.53	21.16	2.83
Average (P2)	56	70.20	18.83	2.52

**Table 8.** Academic performance (2020/21) paired samples *t* tests

	<i>t</i>	<i>degree of freedom</i>	<i>sig. (2-tailed)</i>
math (P1) & (P2)	-3.607	54	.001
Eng (P1) & (P2)	-3.213	55	.002
Chi (P1) & (P2)	-5.399	51	.000
General studies (P1) & (P2)	2.231	53	.030
Average (P1) & (P2)	-3.335	55	.002

#### 4.4 Summary of Findings

Overall, the results of our study are consistent with our conceptual model. We found a positive correlation between happiness and academic performance, as well as between motivation and academic performance. Additionally, we observed a significant correlation between learning and both happiness and motivation in learning. However, we identified a significant difference in academic performance between P1 and P2 in 2018/19, with better performance at P1. In 2020/21, the situation reversed, with P2 showing better academic performance than P1.

## **5 Implications, Recommendations, and Conclusions**

### **5.1 Implications**

The first research question was Will the school environment affect first-grade primary students and enhance intrinsic or extrinsic motivation to learn? The findings indicated that a happy school environment had no effect on children's academic performance as an extrinsic motivator in 2018/19 and had a reverse effect in 2020/21. In 2018/2019, students are happy in learning, doing revision or completing homework, and will take initiative to complete homework and pack his/her own schoolbag, but will not take initiative to do revision by themselves. In 2020/21 Examinations appear to improve extrinsic motivation. As for intrinsic motivation, only Q1 ("When learning, my child feels...") had a higher score of 3.98 the other questions (Q2, Q3, Q7, Q8, Q9) had average scores between 3.04 to 3.69 in 2018/19 for 2020/21 Q1 had 4.06 and other questions had average scores between 1.96 to 3.11, indicating that a happy school environment does not significantly improve intrinsic motivation.

The second research question was Will the school environment affect first-grade primary students and be associated with greater intrinsic or extrinsic motivation to learn with happiness? The results showed that the mean scores for aspects of learning with happiness were relatively high. Q4 to Q6 mean score between 4.24 to 4.47 in 2018/19 and 4.28 to 4.61. The total possible score for each question was 5 points, based on the scores above, the children showed a relatively higher to learn with happiness compared to their motivation to learn. In fact, the highest score in motivation to learn was Q1 ("When learning, my child feels...") with only 3.98 and 4.02 points in 2018/19 and 2020/21. Therefore, the results indicate that a happy school environment in the first grade of primary school can promote learn with happiness (intrinsic motivation).

The third research question was, Will the school environment be associated with first-grade students' higher intrinsic or extrinsic motivation to perform academically? For the 2018/19 school year, we compared the academic performance scores in first and second grade. In the first grade, most subject scores were higher than in the second grade, except for English. The mean score for English in the first grade was 64.49, while in the second grade it was 66.14. On average, the scores were almost the same, with only a 0.07 difference. For the 2020/21 academic year, all there were higher scores in all subjects in the second grade than in the first grade. Therefore, it remains uncertain whether a happy school environment can improve students' academic performance (extrinsic motivation).

### **5.2 Summary of the Findings**

To summarize the findings of our study, we have observed that a happy school environment created by the school does not necessarily associated with higher levels of extrinsic motivation among students. However, it does have the potential to foster intrinsic

motivation by providing a conducive learning environment that promotes happiness. However, it is important to note that these findings do not represent all happy schools, as there may be variations among schools that are designed to provide a happy environment.

### **5.3 Limitations**

This study has several limitations. First, the results were based on parents' understanding of their children's happiness and motivation for learning, which may not be accurate. Students are likely unable to provide responses that are as nuanced as those of their parents, yet it may be possible to develop a simple measure appropriate for this age group. Second, due to the Covid-19 pandemic, the study period from 2019 to 2021 involved a long period of online classes using Zoom, which may not be able to create a happy school setting. If schools give the same tasks, the benefits of a happy school environment may be more consistently evident.

### **5.4 Recommendations**

The results suggest directions for future study. Future research might consider longitudinal study over a longer period that will generate ideas about causal relationships between learning and happiness, motivation in learning, and academic performance. Future studies could also further investigate gender differences in academic performance, something that we did not test.

### **5.5 Conclusions**

This study had two hypotheses. The results showed that in the school year 2018/19, the academic performance of first-grade students was better than that of second-grade students, while in 2020/21, the academic performance of second-grade students was better than that of first-grade students. Furthermore, the relationship between learning with happiness and motivation in first grade students' learning was inversely correlated with motivation in learning. It appears that a happy school environment does not improve the external motivation in second grade. The findings suggest that when children learn with happiness, it can improve their motivation to learn (intrinsic motivation). To summarize our findings, we observed that a happy school environment created by the school does not necessarily correlate with higher levels of extrinsic motivation among students. However, it does have the potential to foster intrinsic motivation by providing a conducive learning environment that promotes happiness. It is important to note, however, that these findings do not necessarily apply to all happy schools, as there may be variations among schools that aim to provide a happy environment.

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