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Engaging in Self-Directed Leisure Activities During a Homework-Free Holiday: Impacts on Primary School Children in Hong Kong

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Abstract

Homework is a core pedagogical tool used by schools around the world. Yet concern for heavy homework load has been raised regarding stress on students and families and how it may overshadow opportunities for non-academic development. Drawing support from Self-Determination Theory and Hope Theory, an innovative intervention project was designed to create homework-free opportunities for school children to take part in freely chosen self-directed leisure activities. The project was implemented in four primary schools in Hong Kong during the Easter holiday in 2017 and 2018. A mixed-method evaluation was conducted to appraise the experiences of student participants as well as the project's impact on holiday satisfaction, homework attitudes and self-directed outcomes. This study's sample was comprised of 1,425 students enrolled in Primary levels 1 to 6. Participants reported in interviews that engagement in self-chosen, self-directed leisure activities were exciting and appealing. Pre- and post-holiday survey results with control-group comparisons confirmed that students who undertook self-directed leisure activities over a homework-free holiday gained enhanced agency thinking and academic competence while also becoming less inclined to see homework as meeting their immediate learning needs. Implications are also discussed regarding the benefits of self-directed leisure activities as well as school-based homework policies regarding assignment load.

Keywords: academic competence, agency thinking, pathways thinking, self-determination theory, hope theory

Introduction

Homework is a pedagogical tool used by teachers worldwide to engage students in learning outside of the classroom. In Hong Kong and many Asian communities, homework places a significant demand on children outside of school hours. Stemming from Confucian virtues emphasizing effort, schools in Hong Kong routinely assign daily homework to students with the intention of consolidating and enhancing learning (Tam & Chan, 2016). Study load adds up when children prepare for projects, quizzes, and examinations, as well as when parents arrange extra drilling exercises and private tutorial lessons to enhance academic performance. The issue

of homework load in various Asian communities has been reported in the media (McGuire, 2016; The Strait Times, 2018) and documented in research (Chen & Lu, 2009; Cheung et al., 2000; Cho & Chan, 2020; Tam, 2009), which draws concern about its impact on children's well-being. Homework is often emotionally charged as students feel stressed in managing the load and academic rigor (Katz et al., 2012; Lange & Meaney, 2011; Pressman et al., 2015; Xu, 2011). Studies show that students who are overburdened with homework assignments tend to perceive homework unfavorably and demonstrate poor academic-related interests and efficacy beliefs (Tam, 2009). These students are also at higher risk for physical health problems (Michaud et al., 2015).

There is also concern that time spent on homework and revision may overshadow opportunities for leisure and child development in non-academic domains. Children's free-time or leisure activities can significantly impact child and adolescent development (Frones, 2009; Watts & Caldwell, 2008). Research conducted in Hong Kong confirm that engagement in interesting and personally relevant activities have the potential to create lasting changes in young people's development (Sivan et al., 2019; Sivan et al., 2020). As supported by research (Bidjerano & Newman, 2010; Caldwell & Baldwin, 2003; Kleiber, 1999; Larson, 2000; Larson & Verma, 1999), children who are free to choose their after-school activities enjoy the opportunity to express themselves and try out different social roles, as well as practice taking initiative and developing leadership skills. Caldwell and Baldwin (2003) demonstrated that engagement in freely chosen leisure activities that were enjoyable, interesting, and intrinsically motivating supported autonomy development in children and adolescents. Hence schools, families and policymakers should consider attaining balance between academic achievement and psycho-emotional well-being by optimizing homework load and promoting constructive free-time activities.

Findings from these researchers served as the impetus for the development and implementation of an innovative project in Hong Kong that created homework-free opportunities for school children to take part in freely chosen self-directed leisure activities. The project team was comprised of social workers, school principals and university academic staff. It endeavored to support primary school students' engagement in self-directed leisure activities over a major holiday with no school-assigned homework. Through this project, students were expected to enjoy the holiday more, improve their homework attitudes and enhance their self-development. This study evaluated the impact of the project by examining students' participation experiences and appraising project outcomes through comparisons against a control group. Findings from this study provide empirical support regarding the benefits of lightened homework load and self-directed leisure activities. The study also provided implications for primary school homework policies in Hong Kong and worldwide.

Literature Review

This project's intent was to engage students in self-directed leisure activities during a homework-free holiday, and it drew support from Self-Determination Theory (SDT) and Hope Theory. SDT (Ryan & Deci, 2000, 2008, 2019) highlights three basic psychological needs which include autonomy, competence. and relatedness. These needs facilitate personality growth, well-being, and integrity. Ryan and Deci (2000) contend that when an individual acts agentically in a setting that satisfies these three needs, an integrated sense of self develops. Research studies conducted

on children and adolescents indicate that the extent to which these needs are met through experience accrued via different activities and life contexts form the basis for positive child development (Larson, 2001; Mahoney et al., 2006; Ryan & Deci, 2020; Watts & Caldwell, 2008). Thus, it is crucial for families and schools to provide activities and environments that promote the fulfillment of these psychological needs. Autonomy, a central concept in SDT, refers to the capacity to be self-governed and to act with volition (Deci & Ryan, 2000). It constitutes an inherent propensity to self-organize and self-regulate behaviors (Niemiec et al., 2010). When a person acts autonomously, a sense of self-worth emerges (Deci & Ryan, 1995). The experience of autonomy is critical for sustaining intrinsic motivation, internalizing extrinsic motivation, as well as developing a healthy personality and value system. It has been argued that free time, or leisure, is the primary arena for the development of children's autonomy (Frones, 2009). From the perspective of SDT, planned, deliberate use of free time leads to the development of an autonomous self with a sense of purpose. Previous research shows that people who feel autonomous, and can make their own decisions within an activity, are more likely to persist in activity engagement and improve performance (Jang et al., 2016; Patall et al., 2019; Vansteenkiste et al., 2006). When children choose to engage in activities they enjoy, and that give them meaning, the feeling of freedom and choice facilitates the development of behavioral and emotional autonomy (Bidjerano & Newman, 2010; Caldwell & Baldwin, 2003; Caldwell & Witt, 2011; Mavropoulou et al., 2019). Thus, free-time activities provide a significant context for the development of one's self. Studies conducted in Western societies have demonstrated how activities undertaken during free time afford children with opportunities for learning and practicing various competencies and skills (McHale et al., 2001) and enhancing autonomy development (Bidjerano & Newman, 2010).

Hope Theory, a cognitive, motivational model introduced by Snyder and colleagues (Snyder, 2002; Snyder et al., 1991), emphasizes hope as a thinking process through which a person actively pursues his/her goals (Snyder et al., 2002). Hopeful thinking includes goals, pathways thinking (setting strategies to achieve goals) and agency thinking (maintaining and enhancing motivation for using the identified strategies). Goals may vary on in their scope, time frame and likelihood of attainment (Snyder, 2002). Children and adults who set realistic goals and work towards goal attainment develop a strong sense of hope that in turn enhances personal agency and self-perception; both of which are vital for positive development (Anderson & Feldman, 2020; Marques et al., 2011; Snyder et al., 1997). Hope theory has been applied widely in school settings to promote students' positive development (e.g., Agran & Wehmeyer, 2000; Akos & Kurz, 2015; Marques et al., 2011).

The above two theories provided support for the project in this study. First, this project drew from SDT in addressing students' psychological needs of autonomy and competence. By freeing students from homework and engaging in self-chosen leisure activities over the holiday break, it created an opportunity for the development of behavioral autonomy. When students tried to accomplish activity goals, they were expected to attain a sense of self-fulfillment. Such fulfillment had the potential to enhance a child's perceived competence across domains of activities. Second, this project drew from Hope Theory to support young participants in setting leisure activity goals, developing strategies to reach those goals (i.e., pathways thinking), and sustaining the necessary motivation to achieve goal attainment, (i.e., agency thinking). Through participation in this project, students were expected to show enhancement in agency and pathways thinking.

Project Design

This project took place in 2017 and 2018 and involved four primary schools in Hong Kong. Two schools participated in the first year and two additional schools joined in the second year. A subsample of student participants took part in the project both years. These four schools were government-aided and located in lower socioeconomic neighborhoods in Hong Kong. In each school, the principal and/or the teaching staff selected specific classes and grade levels to take part in the project based on logistic considerations such as examination schedule. There were two major components to the project's design: (a) no homework was assigned over Easter holiday break and (b) engagement in self-directed goal-oriented holiday activities were required. A homework-free holiday is atypical in Hong Kong, as most schools routinely assign homework over breaks so that students can continue their academic studies outside of the classroom. This project was implemented over Easter holiday, a statutory public holiday in Hong Kong, when classes are typically suspended for 10 to 14 days regardless of the school's religious affiliation. Students participating in this project received no homework assignment from the school over the holiday. Under the guidance of teachers and social workers, each student freely chose a leisure activity (e.g., art, music, sports, reading), set up an activity goal and worked towards the goal over the holiday. Drawing from SDT and Hope Theory, it was expected that project participation would enhance the children's enjoyment of the holiday, sustain a favorable view towards homework, promote their academic competence, and pathways and agency thinking.

Before the Easter holiday, students attended a workshop delivered by social workers and schoolteachers. The workshop aimed at orienting students towards choosing a holiday activity, establishing an activity goal, and motivating them to achieve the goal. Self-regulation skills included time management and progress monitoring. During the holiday, students recorded their daily activities and tracked goal attainment in a project diary. After the holiday, students shared their activity experiences with teachers and fellow classmates in debriefing sessions.

The project was conducted over a two-year period, from 2017 through 2018. An evaluation of the project was conducted after the project's conclusion in 2018 to examine student experiences and to appraise the project's impact. It was hypothesized that compared to the control group, those who received a traditional homework load over the break, the project participants would show higher holiday satisfaction as well as improvement in homework attitudes, academic competence pathways thinking, and agency thinking. It was also expected that project gains would be observed among both junior and senior primary students but would be more prominent among students who participated in the project two years in a row.

Methods

A mixed-method approach, combining qualitative and quantitative data, was used to analyze the study's data. The two approaches each made distinct contributions to the results, while also supplementing each other (Morgan, 2014). The qualitative component of the study involved a series of semi-structured individual interviews conducted with homework-free holiday students two to four weeks after the Easter holiday which concluded in 2018. The purpose of the interviews was to examine students' perceptions and views towards the project, as well as their involvement and experiences. For the quantitative component, a nonrandomized control group, pre-test post-test experimental design was used to assess the effect of project participation with

respect to holiday satisfaction, homework attitudes and self-related attributes. Assessment was conducted via pre- and post-holiday questionnaire surveys using four self-report research instruments.

Sample

The sample for this study was comprised of students from 56 classes spanning Primary 1 to Primary 6 across six primary schools. Two groups of students were recruited, namely experimental and control, to take part in the quantitative component of the study. The experimental group was comprised of 30 classes of students from the four participating schools. Among them, 20 classes participated in the project for the first time in 2018 (Experimental Group 1) and 10 classes joined the project in Easter 2017 and again in 2018 (Experimental Group 2). The control group included 26 classes matched to the experimental groups by grade level. These classes were either from two non-participating primary schools with a similar school background and student demographic profile, or from the four participating schools. Students in the control group completed the pre- and post-holiday questionnaires but did not take part in the qualitative component of the evaluation study. A total of 1,425 students were involved in the study (see Table 1). There were 542 students in Experimental Group 1, 264 students in Experimental Group 2, and 619 students in the Control Group. Among them, 54% were boys whereas 46.5% of the sample was studying at junior primary level (Primary 1 to 3). In the sample, 96.5% students aged between six and twelve years, the typical age range for compulsory education at primary levels. As for the qualitative component, thirteen students, nine from Experimental Group 1 and four from Experimental Group 2, were recruited by schoolteachers to attend individual interviews after the Easter holiday. Among the interviewees, there were five girls and eight boys, with four attending junior primary level (Primary 1 to 3) and nine at senior primary level (Primary 4 to 6). The heterogeneous interview sample provided variations in project experiences and responses in the findings. The study received approval from Institutional Review Board of the first author's affiliation. Informed consent from parents were collected before the commencement of the study.

Table 1. Frequency Distribution of Grade Level and Gender by Research Group

Variable		Control Group (n = 619)	Experimental Group 1 (n = 542)	Experimental Group 2 (n = 264)	Total
Grade level	Junior Primary (1 – 3)	306 (49.4%)	257 (47.4%)	100 (37.9%)	663 (46.5%)
	Senior Primary (4 – 6)	313 (50.6%)	285 (52.6%)	164 (62.1%)	762 (53.5%)
Gender	Male	335 (54.1%)	297 (54.8%)	138 (52.3%)	770 (54%)
	Female	284 (45.9%)	245 (45.2%)	126 (47.7%)	655 (46%)

Note. N = 1425; Column percentages in parentheses.

Data Collection

Two rounds of questionnaire surveys were conducted with the experimental groups and the control group before and after the Easter holiday. The questionnaires incorporated existing research instruments in appraising the project's impact. The pre-holiday questionnaire assessed students' homework attitudes, academic competence, agency thinking, pathways thinking and demographic information. Post-holiday questionnaires included the pre-holiday assessment items and additional items on holiday satisfaction. The experimental groups also responded to questions regarding project involvement. Details regarding the research instruments used in the surveys are listed in the following subsections. The post-holiday interviews were comprised of

questions that explored students' project experiences. Examples of interview questions were: *What did you do over Easter holiday? Which activity did you choose for the project? What was your activity goal? How was your project experience? Did you run into any challenges? What have you gained or learned from the project?* All interviews were conducted by the project team. They were done in Cantonese and held at the respective school sites. The length of the interviews ranged from 16 minutes to 36 minutes, with an average of 23.5 minutes.

Homework Attitudes

The Perceived Homework Function Scale (Tam & Chan, 2011) was used to assess students' perception on homework purposes as an indication of their homework attitudes. Three subscales comprised of 10 items were used, which included: (a) homework as meeting immediate learning goals (four items): for reviewing and applying learning, or preparing for tests and examinations; (b) homework as meeting long-term learning goals (three items): for developing time management and responsibility, improving academic skills, or enhancing academic interests; and (c) homework as meeting external demands (three items): for meeting the teachers' request, pleasing teachers and parents, or punishing students. The first two subscales measured attitudes on the intrinsic functions of homework while the latter focused on its extrinsic purposes. Students responded to each statement on a five-point Likert scale (1 = Strongly disagree; 5 = Strongly agree). The scale has been used with primary school students, teachers and parents (Tam & Chan, 2011, 2016). Cronbach's alphas reported for the subscales in this study's pre-test assessment were .81, .75 and .60 respectively. These values reflected moderate to good reliability (Taber, 2018).

Academic Competence

The project's designers developed two items that were used for measuring student's perceived academic competence, namely *I do better than my fellow students in academic results* and *I am capable of managing school learning*, with responses collected on a five-point Likert scale (1 = Strongly disagree; 5 = Strongly agree). Cronbach's alpha reported for this study's pre-test assessment was .59, showing that the internal consistency is acceptable (Taber, 2018).

Pathways and Agency Thinking

Two subscales of Snyder et al.'s (1997) Children's Hope Scale were adopted. Sample items for the Pathways Thinking Subscale and Agency Thinking Subscale were *When I have a problem, I can come up with lots of way to do it* and *I am doing just as well as other kids my age* respectively. Students responded to six statements on a six-point format (0 = None of the time; 5 = All of the time). The two subscales' reliabilities, as indicated by Cronbach's alphas, in this study's pre-test assessment were .70 and .77 respectively. The values were deemed satisfactory (Taber, 2018).

Holiday Satisfaction

To measure student's satisfaction with their Easter holiday experiences, eight items were drawn from Beard and Ragheb (1980)'s Leisure Satisfaction Scale pertaining to learning and relaxation dimensions of leisure experiences. The Chinese version previously used in Wu (2010) was adapted. Sample items for measuring learning and relaxation satisfaction were *My Easter holiday*

activities increase my knowledge about things around me and *My Easter holiday activities help relieve stress* respectively. A five-point Likert format (1 = Strongly disagree; 5 = Strongly agree) was used to collect responses for each item. Cronbach's alphas for the two subscales in this study's pre-test assessment were .80 and .72 respectively, demonstrating satisfactory reliability (Taber, 2018).

Data Analysis

The post-holiday interviews were audio-recorded and verbatim transcripts were prepared. Analysis of the transcripts adhered to the general principles of qualitative analysis on exploring and explaining the underlying essences, patterns, processes, and structures of everyday life experiences (Rapley, 2011). This study followed the inductive data analysis procedures suggested by Auerbach and Silverstein (2003), which include identifying relevant texts, grouping related passages of texts and organizing themes. The questionnaire data were processed using SPSS version 24. Descriptive analyses were performed to generate profiles of students' demographic background, homework involvement and holiday experiences. Repeated measures MANOVAs were conducted to compare pre- and post-holiday measures among the experimental and control groups. The test is commonly used for determining the effects of independent categorical variables on multiple dependent variables over time (Weinfurt, 2000). It was used in this study to compare three research groups with respect to multivariate project outcomes that correlate with one another.

Findings

Findings from this study were comprised of qualitative and quantitative data analyses on project experiences and their impact. Data are presented in the following sections; pseudonyms were used in order to protect the study participants' privacy.

Holiday Experiences and Project Involvement

Through survey questionnaires and interviews, students in the experimental groups reported their experiences during the homework-free Easter holiday as well as their involvement in self-directed leisure activities. Their satisfaction with the holiday experience was compared with the control group.

In the interviews, participating students revealed that they enjoyed the no-homework holiday as they were free from the pressure of school assignments. They treasured the extra time earmarked for leisure and recreational activities as well as for family gatherings, which were usually unavailable during school days. Dennis, a Primary 4 student, enjoyed holiday time with his family: "I was able to spend more time with my family and the relationship with the family becomes better". Cindy, also attending Primary 4, shared her excitement over the Easter holiday where she learned to make balloon toys through online videos: "I felt happy and excited because I could use my time to get some precious opportunities to be with my family. ... I was also able to achieve my dream goal". Conrad, who was studying at Primary 5, enjoyed the freedom granted by the homework-free holiday. He chose playing the ocarina as his activity goal.

> (During the school term) I put endless effort on homework every day. After finishing homework, I feel very tired. I can't think about anything else and I have no free time… (during Easter holiday) When there was no homework, it was like no one is monitoring and controlling me and I was able to do something different.

Students in the experimental groups set up their own holiday activity goals related to sports (38.3%), art and crafts (23.9%), life-skills (17.9%), languages (9.2%), music (8.7%) and reading (5.6%). In the interviews, students reported their excitement about engaging in a self-selected activity and working towards a goal. They appreciated this novel opportunity to extend learning outside the classroom and to acquire time management skills by setting their own daily schedule. Primary 2 student Charles used the holiday to complete a storybook by drawing. He remarked, "I was able to do what I like to do... The project is suitable for little kids like us". Archie, another Primary 2 student, engaged in making electrical circuit boards. He said, "the project allowed us to design our goal. I think it's something I have never done before". Ben, who was attending Primary 6, enjoyed taking part in the project as he engaged himself in purposeful activities:

> I like (the project). It is better than simply not doing homework. It is good to develop my own goal and dream. ... Sometimes I am stupid, not knowing what to do. Now at least I had something to restrain myself; there was something I could do. Thus, I did not end up playing with smartphone all day.

David, also a Primary 6 student, spent the holiday reading history books as his activity goal. He appreciated this opportunity for self-directed activities. He said, "I could set a timetable to do my own things. ...We didn't need a teacher around; we could learn by ourselves. I didn't need to rely too much on the teachers, and I learned to be self-directed in learning".

In the interviews, students revealed the challenges they met in accomplishing activity goals, including exhaustion, distraction and losing steam. Archie reported that he was at times distracted from working on his activity goal, "sometimes I didn't have time to work on (the activity goal). I slept in late, played games and read books". Cindy found the task of making balloon toys physically exhausting. Yet she did not give up as she was intrinsically interested in the activity: "I wanted to try a new way to twist the balloon. ...I got so tired, but I didn't give up because it's something I like to do". The support of family and peers was deemed important in sustaining students' pursuit of their goal. Students reported that parents often gave advice and took time to take part in the holiday activity together. They also motivated the child and monitored his/her progress. Ben whose activity goal involved physical exercises was encouraged by his mother to adhere to the daily schedule plan: "My mom reminded me to do exercise every day and I followed the daily schedule set up in the diary". Survey results showed that eventually more than half of the students *fully* (34.0%) or *almost* (25.9%) achieved their activity goal. Most of them liked the project, with 62.3% reporting their enjoyment as *very much* and 18.9% *some*.

It is worthwhile to note that while no homework was assigned by the school, a substantial proportion of experimental group students (72%) reported spending time and effort towards academic studies during the holiday (see Table 2). As revealed in the interviews, students often did revisions or worked on supplementary exercises assigned by parents or private tutors. They considered it acceptable to do homework and revisions over holiday breaks based on the conviction that homework sustains learning and prepares them for examination. Aaron, a Primary 4 student, shared his views towards homework: "There was nothing to do during the holiday break. I learned to play chess (as the activity goal). I could have used the remaining time to do homework, which is a good idea". Primary 6 student Daisy believed that it was essential to do

academic work over the holiday so as to sustain learning: "If I don't do revisions, I won't remember anything when going back to school. Thus, I should do some revision during the holiday."

Table 2. Frequency Distribution of Time Spent Per Day on Holiday Assignment/Revision by Research Group

Group	No Assignment/Revision	Less Than 1 Hour	Around 1 to 2 Hours	More Than 2 Hours
Experimental Group 1 & 2 (n = 749)	210 (28.0%)	250 (33.4%)	213 (28.4%)	76 (10.1%)
Control Group (n = 563)	21 (3.7%)	154 (27.4%)	266 (47.2%)	122 (21.7%)

Note. N = 1312 (113 of the study participants did not answer this question); Row percentages are in parentheses.

Comparison among the three research groups were made with regards to the two aspects of holiday satisfaction, namely learning and relaxation (see Table 3). As the two holiday satisfaction variables showed significant correlation, r = .56, p < .01, a 3 x 2 MANOVA; the research group (Experimental 1 vs. Experimental 2 vs. Control group) x primary level (Junior primary vs. Senior primary), was performed to control for a Type I error. Contrary to the hypotheses, results showed no significant main effect of research group on holiday satisfaction variables, $F(4, 2678) = 0.63$, p = .64 The research group x primary level interaction effect was reported to be non-significant as well, $F(4, 2678) = 1.27$, p = .28. In summary, the three groups had similar level of holiday satisfaction with respect to learning and relaxation, and the same observation held for senior primary and junior primary students.

Table 3. Measures of Holiday Satisfaction, Homework Attitude and Project Outcome Variables as a Function of Research Group: Means and Standard Deviations

	Experimental Group 1				Experimental Group 2				Control Group			
	Junior Primary n = 259		Senior Primary n = 283		Junior Primary n = 100		Senior Primary n = 164		Junior Primary n = 306		Senior Primary n = 313	
Variable	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Holiday satisfaction with respect to: Learning	3.57	1.03	3.76	0.86	3.61	0.90	3.56	0.94	3.72	0.91	3.68	0.88
Relaxation	3.90	0.98	4.05	0.84	3.94	0.86	3.93	0.86	4.01	0.82	4.00	0.82
Homework as meeting immediate learning goals: Pre-holiday	3.98	0.98	3.99	0.72	3.77	0.95	3.82	0.88	4.09	0.75	3.85	0.68
Post-holiday	3.65	1.22	3.89	0.91	3.72	1.05	3.73	0.96	4.07	0.94	3.90	0.77
Homework as meeting long-term learning goals: Pre-holiday	3.85	1.06	3.52	0.88	3.54	1.07	3.32	0.96	3.82	1.00	3.49	0.81
Post-holiday	3.63	1.18	3.59	0.96	3.42	1.16	3.39	0.99	3.84	1.06	3.60	0.83
Homework as meeting external demands: Pre-holiday	3.07	1.16	2.89	0.99	2.80	0.89	2.67	1.03	2.96	1.18	2.86	0.97
Post-holiday	3.06	1.26	2.93	1.02	2.83	1.08	2.71	1.08	2.91	1.18	3.01	1.01
Academic competence: Pre-holiday	3.59	1.13	3.19	0.91	3.34	1.10	3.01	0.86	3.53	0.96	3.10	0.96
Post-holiday	3.54	1.17	3.41	0.95	3.51	1.15	3.34	0.89	3.44	1.11	3.20	0.89
Agency Thinking: Pre-holiday	3.18	1.42	3.04	1.20	3.06	1.48	2.84	1.13	3.30	1.25	2.95	1.19
Post-holiday	3.17	1.37	3.08	1.17	3.31	1.24	3.09	1.13	3.19	1.29	3.09	1.20
Pathways thinking: Pre-holiday	3.38	1.35	3.04	1.15	3.22	1.30	2.99	1.23	3.44	1.25	3.07	1.11
Post-holiday	3.26	1.42	3.07	1.18	3.37	1.29	3.09	1.23	3.30	1.27	3.11	1.16

Note. *N = 1425*

Gains From Project Engagement

Results from the interviews and surveys shed light on students' gains from engaging in the self-directed leisure activity project over the homework-free holiday. In the interviews, senior

primary students mentioned feeling satisfied with the newly acquired skills and knowledge related to their activity goal. They reported personal growth in the aspects of perseverance, patience and perspective taking. Ben reflected over his project experience: "I feel that I have grown up. ...Often time I feel things are so difficult that I can't do it. This time I almost made my goal and I have a strong sense of satisfaction about it". Aaron articulated how he improved in the areas of observation and patience while playing chess over the holiday.

> (Through the project) I learned how to be patient in handling things... Because I learned to play chess and I had to be patient in observing the whole game... I learned the importance of observing the whole situation. … It also helps me in getting along with others... When someone annoys me, I need to understand why he is doing things like that... I can ignore the person after I understand the reasons behind his behaviors.

While descriptive data from this study were presented in Table 3, MANOVA was used to appraise the impact of the project on student outcomes. Comparisons were made among the experimental groups and control group with regards to: (a) changes in homework attitudes; and (b) changes in academic competence, agency thinking and pathways thinking.

First, results on the three homework attitude variables showed high mean scores for seeing homework as meeting immediate learning goals while those for meeting external demand were the lowest across groups and time. This indicated that students in general held positive attitudes towards homework, endorsing its intrinsic functions more so than the extrinsic functions. Comparisons related to homework attitudes before and after the holiday across the three research groups were made. As the three perceived homework attitude variables showed significant bivariate correlations with Pearson's *r* coefficients ranging from .13 to .71, *p*s < .01, multivariate analysis was performed for controlling Type I error. Specifically, a 3 x 2 x 2 x 3 doubly multivariate repeated measures MANOVA with research group and primary level as between-subject factors and pre-post as a within-subject factor on the three homework attitude variables was conducted (see Table 4). Pillai's Trace was used as a test statistic as the homogeneity of covariance matrices was found to be significant.

Table 4. Multivariate and Univariate Analyses of Variance for Research Group x Primary Level x Pre-Post Holiday Comparison for Homework Attitude Variables

		Multivariate		Univariate					
Variable				Meeting Immediate Learning Goals		Meeting Long-Term Learning Goals		Meeting External Demands	
	df	*F*	η	*F*	η^2	*F*	η^2	*F*	η^2
Research group (R)	2	4.51 [a] **	.01	6.10 [d] *	.01	7.90 [d] *	.01	4.83 [d] *	.01
Primary level (P)	1	9.41 [b] **	.02	0.11 [c]	.00	13.52 [c] **	.01	2.70 [c]	.00
Pre-post-holiday comparison (C)	1	5.01 [b] *	.01	11.07 [c] *	.01	0.19 [c]	.00	0.97 [c]	.00
R x P	2	3.03 [a] *	.01	5.36 [d] *	.01	0.78 [d]	.00	0.87 [d]	.00
R x C	2	2.55 [a] *	.01	7.36 [d] *	.01	2.61 [d]	.00	0.09 [d]	.00
P x C	1	3.43 [b] *	.01	2.80 [c]	.00	9.95 [c] *	.01	1.46 [c]	.00
R x C x P	2	1.29 [a]	.00	1.98 [d]	.00	0.96 [d]	.00	0.82 [d]	.00

Note. Multivariate *F* ratios were generated from Pillai's Trace statistic. η^2 = effect size. [a] Multivariate *df* = 6, 2342. [b] Multivariate *df* = 3, 1170, [c] Univariate *df* = 1, 1172, [d] Univariate *df* = 2, 1172. * $p < .05$. ** $p < .01$

Results of multivariate analysis using Pillai's Trace found significant pre-post main effect, $F(3, 1170) = 5.01$, $p < .01$; significant pre-post x grade level interaction effect, $F(3, 1170) = 3.43$, $p < .05$; and most importantly significant pre-post x research group interaction effect, $F(6, 2342) = 2.55$, $p < .05$ with the homework attitude variables. The three-way interaction, namely pre-post x research group x primary level, was non-significant. Follow-up univariate analyses indicated

significant pre-post main effect observed with seeing homework as meeting immediate learning goals, $F(1, 1172) = 11.07$, $p < .01$. For the entire sample, students reported lower endorsement on this perceived homework attitude after the Easter holiday (*M*s = 3.96 and 3.87). No significant pre-post change was observed with the other two homework attitudes. Regarding comparison across the three research groups, follow-up univariate analyses showed significant pre-post x research group interaction with meeting immediate learning goals, $F(2, 1172) = 7.36$, $p < .01$, and not with the other two homework attitude variables. Experimental Group 1 and 2 demonstrated a marked decrease in seeing homework as meeting immediate learning goals after the holiday (Experimental 1: *M*s = 3.99 and 3.78, *SD*s = 0.84 and 1.06; Experimental 2: *M*s = 3.80 and 3.73, *SD*s = 0.91 and 0.99). No change in the variable of seeing homework as meeting immediate learning goals was observed with the control group (*M*s = 3.97 and 3.98, *SD*s = 0.71 and 0.85). The pattern of pre- and post-holiday comparison across the research groups was similar across Junior and Senior Primary students as no three-way interaction effect was observed.

Finally, analyses were conducted to compare students' performance on project outcomes before and after the holiday across the three research groups, namely academic competence, agency thinking and pathways thinking. The three outcome variables showed significant bivariate correlations with Pearson's *r* coefficients ranging from .37 to .75, *p*s < .01. Hence, a 3 x 2 x 2 x 3 doubly multivariate repeated measures MANOVA with research group and primary level as between-subject factors and pre-post as a within-subject factor were performed on these three variables. Results of multivariate analysis using Pillai's Trace were summarized in Table 5. Significant pre-post main effect, $F(3, 1155) = 5.92$, $p < .01$, and pre-post x grade level interaction effect, $F(3, 1155) = 3.71$, $p < .05$, were found. Of particular interest was the significant pre-post x research group interaction effect, $F(6, 2312) = 2.23$, $p < .05$. The three-way interaction of pre-post x research group x primary level was non-significant.

Table 5. Multivariate and Univariate Analyses of Variance for Research Group x Primary Level x Pre-Post Holiday Comparison for Project Outcome Variables

Variable	Multivariate			Univariate					
				Academic Competence		Agency Thinking		Pathways Thinking	
	df	*F*	η^2	*F*	η^2	*F*	η^2	*F*	η^2
Research group (R)	2	1.52 [a]	.00	2.64 [d]	.01	0.21 [d]	.00	0.33 [d]	.00
Primary level (P)	1	11.35 [b] **	.03	27.07 [c] **	.02	7.63 [c] **	.01	15.50 [c] **	.01
Pre-post-holiday comparison (C)	1	5.92 [b] *	.02	12.21 [c] **	.01	5.83 [c] *	.01	0.08 [c]	.00
R x P	2	0.32 [a]	.00	0.27 [c]	.00	0.31 [c]	.00	0.02 [c]	.00
R x C	2	2.23 [a] *	.01	4.05 [d] *	.01	3.49 [d] *	.01	1.61 [d]	.00
P x C	1	3.71 [b] *	.01	10.01 [c] **	.01	1.85 [c]	.00	1.58 [c]	.00
R x C x P	2	0.67 [a]	.00	0.21 [d]	.00	1.23 [d]	.00	0.72 [d]	.00

Note. Multivariate *F* ratios were generated from Pillai's Trace statistic. η^2 = effect size. [a] Multivariate $df = 6, 2312$. [b] Multivariate $df = 3, 1155$, [c] Univariate $df = 1, 1157$, [d] Univariate $df = 2, 1157$. * $p < .05$. ** $p < .01$

Follow-up univariate analyses indicated a significant pre-post difference observed with academic competence, $F(1, 1157) = 12.21$, $p < .01$, and with agency thinking, $F(1, 1157) = 5.83$, $p < .05$. For the entire sample, students reported higher academic competence (*M*s = 3.31 and 3.39) and agency thinking (*M*s = 3.08 and 3.14) after the Easter holiday. No significant pre/post- holiday change was observed with pathways thinking. Results of univariate tests showed significant pre-post x research group interaction effects with academic competence, $F(2, 1157) = 4.05$, $p < .05$, and agency thinking, $F(2, 1157) = 3.49$, $p < .05$. Specifically, students in the two experimental groups demonstrated increases in academic competence after the holiday (Experimental 1: *M*s =

3.38 and 3.47; Experimental 2: *M*s = 3.14 and 3.40); whereas no change was observed with the control group (*M*s = 3.31 and 3.32). The improvement in academic competence observed with Experimental Group 2 was notably substantial. As for agency thinking, students in Experimental Group 2 showed improved performance after the holiday (*M*s = 2.92 and 3.17), while no significant change was found with Experimental Group 1 (*M*s = 3.11 and 3.12) and the control group (*M*s = 3.12 and 3.14). In summary, the results provided supportive evidence of the project's impact on promoting students' academic competence and agency thinking.

Discussion and Conclusions

Homework is a useful pedagogical tool widely endorsed by parents, teachers, and students in Chinese communities as an essential component of school learning. These positive attitudes towards homework must be considered in conjunction with children's need for balanced opportunities to support development across academic and non-academic domains. The call to reconsider homework load is a concern in education systems around the world. Based on the 2015 Programme for International Student Assessment (PISA) findings on science performance across nations, the Organisation for Economic Co-operation and Development (2016) recommends that learning time, particularly after school, needs to be productive so that students can develop their academic, social, and emotional skills in a balanced way. This project's findings support this call by highlighting the need for schools to assign homework in balanced and effective ways and to create opportunities for promoting students' healthy growth in non-academic areas.

Conclusions

This study involved an innovative school project conducted in Hong Kong that created homework-free opportunities and engaged young students in self-directed, goal-oriented leisure activities. This mixed-method study found that by incorporating homework-free opportunities into the curriculum, it increased holiday satisfaction, improved homework attitudes, and enhanced academic competence, agency and pathways thinking. In the interviews, students expressed their enjoyment during the homework-free holiday. They found their self-chosen, self-directed leisure activities exciting and appealing. They appreciated the opportunity to extend learning outside the classroom and to acquire time management skills by setting their own daily schedule. The views and experiences shared by participating students indicated that their lessened homework load created opportunities for development in non-academic domains, and that engagement in self-directed leisure activities enhanced their intrinsic motivation and competence. Survey results with control-group comparisons confirmed that students benefited from the project with regards to enhanced agency thinking and academic competence. As predicted, the experiences in exercising free-choice and engaging in goal-directed activities demonstrated an improvement in students' sense of agency and competence. The results also demonstrated the project's cumulative effects as students who undertook the project for a second year revealed a more marked increase in these two outcomes. Finally, the study revealed that by exercising autonomy and self-directed learning skills, they are likely to grow and develop through repeated exposure.

Theoretical Implications

Taken together, the findings from this study align with the existing research literature drawn from SDT and Hope Theory. Goal setting and attainment enhance personal agency and self-perception among middle-school students (Marques et al., 2011) and other youth (Snyder et al., 2002). Intrinsic motivation is sustained, and competence is enhanced when preadolescents and early adolescents engage in freely chosen activities (Bidjerano & Newman, 2010; McHale et al., 2001). Of particular importance is that this study highlighted the benefits of autonomy development in a Chinese socio-cultural setting. Confucian values prevailing in Chinese culture put emphases on conformity and family interdependence (Chao & Tseng, 2002). Children are expected to follow the wishes and decisions of their parents, teachers and school. The need for encouraging independent decision-making and autonomous motivation among children, especially at school age, is often overlooked in Chinese school systems (Yu et al., 2018). Yet previous studies show that Chinese adolescents engaging in self-chosen activities in autonomy-supportive environments develop a strong sense of volition leading to adaptive outcomes, including autonomous motivation, positive self-perception, and self-regulation (e.g., Lekes et al., 2010; Vansteenkiste et al., 2005; Zhou & Xu, 2012). Similarly, this study revealed that engagement in self-directed, self-chosen activities enhances agency thinking and perceived competence across Chinese junior and senior primary students in Hong Kong.

Practical Implications

This study's findings provided evidence regarding the importance of creating opportunities for supporting primary school students' autonomy development and goal attainment skills. Even though participant engagement took place in a short timeframe, around one month over the Easter Break, the pre-post comparisons across research groups provided evidence of this project's impact. It is anticipated that similar interventions are likely to benefit adolescents with their autonomy development. By broadening these skills, teenagers can work on self-directed activity goals of their own interests. This study offers an intervention model that couples a homework-free holiday break with self-directed goal-oriented leisure activities. Schools in Hong Kong and other Asian communities with heavy homework load are urged to draw from SDT and Hope Theory and to consider their unique school context for the development of opportunities that support autonomy development and enhancing goal attainment for students.

This study's findings suggest a need to reconsider how homework is loaded in Hong Kong primary schools and similar educational communities. A major component of this study involved a homework-free holiday break which was intended to relieve children's study pressure and create a window of opportunity for non-academic development. While school homework was not assigned, it was intriguing to find that most participants did supplementary exercises or revisions over the holiday. Their break was not entirely free of academic work. This observation aligns with previous findings indicating that homework is embraced as a core pedagogical strategy among students, parents, and teachers (Tam & Chan, 2011, 2016). The strong work ethic which is ingrained in Chinese culture renders students and parents committed to putting sustained effort towards academic work, even over holidays. This may explain why this study failed to demonstrate higher holiday relaxation satisfaction among participants as compared to the control group. Efforts to reduce homework load is likely to face resistance when students, parents and schools alike hold strong convictions about the benefits of homework on academic achievement

and the necessity of daily assignments and revision. In fact, the study team found it challenging to recruit schools to join this project as some schools were concerned about the homework-free period causing an interruption to academic studies. Hence, when designing efforts to adjust homework load at the school or policy level, it is paramount to consider beliefs held by different stakeholders, namely students, parents, and teachers.

Limitations and Future Research

This study utilized non-randomized experimental and control groups, which limits the generalizability of the findings. The small sample used in the interviews may not reflect the full spectrum of project experiences. Further research should consider validating this study's impact with the use of randomized groups in an experimental design as well as substantial samples for qualitative interviews. Longitudinal studies are also recommended to examine whether such opportunities for working towards self-chosen activity goals may sustain autonomy development at subsequent stages of child development.

The findings of this study indicated that in addition to addressing autonomy and competence, it enhanced participants' relatedness, which is the third psychological need in SDT. This impact was reflected in the participants' report on treasuring extra family time during the homework-free holiday and active involvement of family members and peers in supporting their goal attainment. Future implementation of this project model should address relatedness explicitly and assess its impact using quantitative measures.

It is worthwhile to note that this study revealed the potential for transforming homework perceptions and beliefs among students. Post-holiday changes in homework attitudes were reported among participating students with respect to perceiving homework as meeting immediate learning. Specifically, students became less likely to see homework's sole purpose as reviewing and consolidating classroom learning and preparing for examination. These findings support that students continue to hold positive attitudes towards homework while they are less convinced of the utility of homework assignments on day-to-day learning. Future researchers should study whether parents and teachers also undergo similar changes in homework perceptions when exposed to a homework-free holiday.

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