

The Effect of I-Ching Education on the Temperament of Elementary School Children, Lifelong Learning Capability, and Bullying Behavior

Li-Yueh Chen, Weixin Shengjiao College, Taiwan
Chen-Mei Li, Weixin Shengjiao College, Taiwan
Sung Lin, Weixin Shengjiao College, Taiwan
Po-Chang Lin, MingDao University, Taiwan

The Asian Conference on Education 2015
Official Conference Proceedings

Abstract

The philosophical foundation of Chinese culture is based on the I-Ching. This study explores how promoting I-Ching education in elementary school will increase a child's temperament, improve lifelong learning capability, and reduce bullying behavior. We used a stratified sampling method with 2,063 elementary schools affiliated with I Ching University. The response rate was 75.23%. The results showed that children's temperament improved by implementing the high-frequency and initiative promotion in I-Ching education which outperformed that adopted by the high-frequency passive promotion, the low-frequency initiative promotion, and the low-frequency passive promotion. The findings reveal the importance of promoting frequency in I-Ching education. Hierarchical multiple regressions were conducted with three main findings are as follows. (1) The promotion frequency and promotion type of I-Ching education have positive effects on three characteristics of a child's temperament which are persistence, attention, and mood. (2) The promotion frequency of I-Ching education has positive prediction effects on four characteristics of child temperament which are the rhythmicity, adaptability, approach versus withdrawal, and threshold of response. (3) The promotion frequency and promotion type of I-Ching education have shown positive effects on a child's temperament. We also found that children's temperaments have positive effects in facilitating the lifelong learning capability and improving bullying behavior.

Keywords: I-Ching Education, Temperament, Lifelong Learning Capability, Bullying Behavior

iafor

The International Academic Forum

www.iafor.org

Introduction

In 1989, UNESCO held a seminar for the twenty-first century where it pointed out that the moral, ethical, and value systems were among the most important challenges facing humanity in the 21st century. The education for the New Century encourages students to become better, smarter, and competent (Zhou Huijing, 2003). Thus, shaping positive and optimistic citizens of high moral character has become the focal point of every country's education. In 2003, Taiwan's Commonwealth Magazine conducted a survey on character and moral education and found that 80% of the country's junior high and elementary school teachers and parents think that the general moral character of society is inferior to that of a decade ago. And, that the influence of teachers and parents on students has declined, ranking behind television and the internet (Ho Qiyu, 2004: 22).

The modern environment is changing rapidly with scientific and technological progress; Students are overwhelmed with too much information but do not know how to digest and absorb it. Students lacking inherent guidance, and a sense of morality, questioning the value of their existence and self-worth will encounter many social problems such as school bullying, and an inferior value system. These are all precursors to adolescent deviant behavior. In October 2010, the first lady Zhou Meiqing in a column published in the Commonwealth Parenting Magazine advised to show concern for school bullying, which aroused public attention of the school bullying problem. According to a release by the Child Welfare League Foundation in 2011, reported that 18.8 percent of elementary and junior high students were bullied by fellow classmates within the last two months. It found that 10.7% of students were bullies, and stated that they had picked on, ridiculed, or attacked their classmates within the past two months. The ridiculing of fellow students has gone up in the past four years by 60%, a total approximating over 80,000 children of which 20,000 are often bullied physically in school. The above survey shows the importance of prevention of school bullying. Therefore, in these times it is even more important for parents and teachers to foster children's temperaments so they can cope with the challenges of modern society. But how can we foster a child's temperament? This study proposes that reading the classics can enhance a child's temperament and after the child's temperament has been enhanced it can help to improve the child's ability to learn and have good interpersonal relationships. From the aspect of children studying the classics, this study focuses on the impact the study of the I-Ching has on children. Given the preceding arguments, it is worthwhile to characterize the relationship between the study of the I-Ching, child temperament, lifelong learning capability, and bullying behavior, by exploring the promotion of I-Ching education in elementary schools. Therefore, this study proposes that Taiwan's I Ching University can be a research case to examine such a model.

The education of children studying the classics

Possessing all valuable knowledge that is eternal is also known as a jing. "Du jing" (讀經) in the Chinese language is the verbal recitation of the classics. That is to recite out loud repeatedly using a child's ability to memorize through uninterrupted repetitive reading with the ultimate goal of having the child memorize the classics (Wang Tsai-kuei, 1994). Children reading the classics are mainly to restore the traditional philosophical education of China which is thousands of years old and uses reading and recitation of the crystallized wisdom of the ancient sages allowing children to come in contact with the mind and world of the ancients. The imperceptible influence purifies

their minds, guiding them towards a better direction in life. Zhou Fei (1991) pointed out that after reading the classics the children can realize what an honorable life is. They realize what makes up norms of behavior in life. They retain perfect wisdom which is hidden everywhere within the classics. Children become versed in the classics resembling a mountain of treasure a source of great wealth. Taking the endless treasures hidden within their hearts, by reading and recitation they can internalize them within their own lives. By emulating the actions of the sages they can achieve a good moral character.

In 1996, the German medical physicians Lin Zhuxiong believed that the manner in which children read the classics did not seek to understand but rather to memorize. Superficially, it may seem that it only trains the left side of the brain but, during the process of memorization because the children are interested and in a complete state of relaxation causes their brainwaves to transition from β wave to α wave. Children that read and memorize the I-Ching, repeatedly show the ability to relieve physical and mental stress and during the α wave can strengthen creativity and the interaction with both subconscious and conscious brain, having a positive effect on inspiration, attention, judgment, and memory. Therefore, the process of reading the classics coincidentally utilizes both sides of the brain, and has a synchronistic effect on the function of the left and right sides of the brain. According to this study when both sides of the brain are able to synchronize the ability to learn increases 2-5 times.

The I-Ching is one of the oldest classics of China; it reveals three universal principles of life, that of change, unchanging and simple change. Confucius emphasized the I-Ching, by stating: “if some years were added to my life, I would give 50 years to the study of the I-Ching, and then I would be without great fault”. “Confucius and Chinese culture are not antiquities of life, but rather the wisdom of life, provided that you use a real-life and merge with it, then you will connect to the road of wisdom. By awakening to a true life one opens and establishes an ideal undertaking to seek knowledge and internally permeating the true source of this ideal by making this ideal real. This is the knowledge of life that arises from the interior to the exterior” (Mou Tsung-san, 1992). You can see that by allowing children to read the classics, not only allows the next generation of Chinese to have a deeper understanding of the value of their inherited culture but it also allows them to advance and conserve their lives investment allowing them to fully prepare to face life's terrifying waves, not cringing or retreating from life's journey but opening and expanding their life's from the interior to the exterior.

The case

In 1994, I Ching University was established with the mission statement of “raising and cultivating talented people” (養賢蓄才), “revitalizing and cultivating people's morals” (振民育德), “refining ambitions” (高尚其志), and “creating universal harmon” (天下太平) through the development of Chinese cultural orthodoxy of the heart method of the I-Ching and Feng shui. In 2008, the University founder Master Huan yuan established the Children's Promotion Center for the study of the I-Ching, allowing the next generation of children studying the elementary education of the I-Ching to take root. Master Huan yuan believed that to be a prosperous country, society needs to be in harmony. Basic education must start from the beginning, while primary education is where everyone's formal education begins. The success or failure of the school's

education can affect the future of the country. Chinese culture orthodoxy I-Ching is the key to inner wisdom. Master Huan yuan pointed out the importance of children learning the I-Ching by saying: The I-Ching is one yin one yang that is called “I” (易). He also said: The I-Ching is the heart of exchange was every heart has opposing points. My heart is the life of all living creatures, the life of all living creatures are for our life. The I-Ching is one yin one yang mutually containing each other, mutually receiving each other this is the basic condition for success.

There are five objectives for children studying the I-Ching promoted by I Ching University (1) To develop children understanding of Chinese cultural orthodoxy of the I-Ching. (2) Enlightened children and open their minds. (3) Follow the universal changes in the universe from the I-Ching and proceeding to foster within their hearts forgiveness of all living things. (4) Through the interaction of both parent and child they can achieve a better relationship and a better learning effect. (5) Starting from elementary education to foster the minds of children to obtain mutual respect and a harmonious society. The Children’s Promotion Center for the Study of the I-Ching designs their teaching materials in a simple to understand language for children. In order not to influence the original meaning the use of contemporary cartoon images are used which are similar to picture stories that children are fond of. Depending on the content of the teaching materials, musical activities with children singing and reciting poems and songs are recorded into educational DVD’s by Weixin television station. The current system of promotion by the center, are the use of afterschool programs in elementary and kindergartens were text and educational films are given for free. Parents are encouraged to take part by reading the classics. Wenxin televises programs for children studying the I-Ching, in addition the Center organizes children’s camps for the study of the I-Ching. In Taiwan, the Center has reached 1.8 million children who have undertaken studies in the I-Ching.

Temperament

Thomas and Chess (1977, p.9) defined temperament as: “how an individual behave which can be equated to the term behavioral style”. Rothbart (1989, p. 59) defined temperament as “constitutionally based individual difference in reactivity and self-regulation”. Thomas and Chess (1977) identified nine dimensions of temperament: (1) activity – the motor and vigor of the child; (2) rhythmicity – the degree of regularity of biological functioning; (3) adaptability – the ease and speed with which a child adjusts to new situations; (4) approach/withdrawal – the tendency to approach rather than withdraw from a new situations; (5) response threshold – the level of stimulation to produce a response from the child; (6) intensity – the amount of emotional energy or vigor expressed by the child in a variety of situations; (7) mood – the amount of unpleasant, unfriendly behavior; (8) distractibility – the extent to which environmental stimulus can divert the attention and behavior of the child (9) persistence – the tendency to continue a task, despite obstacles and attention span of the child. Carey (1998) reasoned that temperament differs from behavioral adjustment which he described by five components: (1) relationships with people, (2) performance of tasks, (3) self-relations (e.g., self-esteem), (4) internal states such as contentment or disturbed feelings, (5) coping or adaptive style. Temperament has been recognized as an important factor in the general social function and competence of children, including their behavior with peers and peer acceptance in preschool and elementary school (Eisenberg, et al., 1997, 2003; Lengua, 2003; Stocker & Dunn, 1990) and in children’s

social and emotional development, and adjustment problems (Eisenberg, et al., 2001; Frick and Morris, 2004; Rothbart and Bates, 2006). In addition, temperament may also influence social development through the interaction between characteristics and the environment (Sanson et al., 2002). Thus, temperament also appears to be an important factor in how well a child adapts to school, including social competence and achievement (Carey, 1998; Martin, 1994). Rothbart and Jones (1998) described the impact of children's ability to self-regulate their behavior, express positive and negative emotions, respond and adapt to demands of the classroom (i.e., reactivity and adaptability toward novel experiences) regarding academic success and teacher's attitudes regarding acceptable classroom behavior. Those students with issues in behavioral self-regulation, and who showed a relative higher negative temperament had more difficulty in adapting to classroom demands. Rothbart, Ahadi, and Evans (2000) advocate that temperament may influence the link between the self and external concepts, schemas, and life narratives which can also be related to self-regulation and positive motivation. Temperament comprises an important set of personal traits that are closely integrated with cognitive function and motivation. The association between learning and social emotional difficulties may be grounded in their common links with temperament. Considering the connection between children's daily functioning and their academic progress (e.g., Welsh, Parke, Widaman, & O'Neil, 2001) it is not surprising that school-based interventions that address children's social and emotional needs also improve academic performance (Graczyk et al., 2000).

Bullying

Bullying as a student being victimized and repeatedly exposed to negative actions by one or more students. Bullying is characterized by the following three criteria: (1) it is aggressive behavior or intentional "harm doing", (2) is carried out "repeatedly and over time", and (3) an interpersonal relationship characterized by an imbalance of power (Olweus, 1991, 1993, 1999). In 2010, Taiwan's Ministry of Education invited scholars and experts, nongovernmental society groups, parents groups, teacher associations to conduct meetings for the prevention of bullying. The National Board of Education address important elements of school bullying: (1) Are there bullying behaviors. (2) Are there any injuries caused intentionally? (3) Is there physical or psychological harm. (4) Both sides forcing their position on the other. In 2011 the Ministry of Education issued a guideline to prevent school bullying. Pointing out that school bullying refers to one individual or a group repetitively using speech, writing, drawings, symbols, body gestures, or other means to directly or indirectly belittle another person. According to a study published in 2009 by the Taiwan's Ministry of Education and the Child Welfare League Foundation, divided bullying into six categories: (1) Physical bullying; (2) Verbal bullying; (3) Relationship bullying; (4) Counterattack Bullying; (5) Sex and Gender Bullying; (6) Cyber bullying. Moreover, Sourander et al (2007) point out that those individuals who were bullied and bullied others as children for a period of time versus occasionally insulted or bullied or taken part in bullying are relatively more affected in early adulthood, and suffer from physical and mental conditions and deviant behavior. Deng Huang Fa (2007) pointed out that bullying was an effective future predictor of violence, and a key indicator of major crimes committed by individuals who were bullied compared to average teens.

Lifelong learning capability

UNESCO (United Nations Educational, Science, and Cultural Organization) is an outstanding contributor dedicated to the development of lifelong learning. In 1996 and 2003, the organization put forward the five pillars of lifelong learning: “learning to live together”, “learning to know”, “learning to do”, “learning to be” and “learning to change”. Hu Mengjing (1997) argues that Lifelong learning refers to the individual as a learner from birth to death between every stage of life and according to their interests and needs or whether it is self-directed learning or a group learning approach or carryout or plan learning activities. The Organization for Economic Co-operation and Development emphasizes personal lifelong learning from cradle to grave and being involved in purposeful learning activities aimed at promoting the integration of personal knowledge, ability and attitude (OECD, 2005). Taiwan’s Ministry of Education’s basic concept of nine years of elementary has also point out the basic capacity for lifelong learning hoping children can establish a sense for the concept of lifelong learning and actively use social resources and personal potential for suitable development in establishing one’s direction in life.

Methodology

Research Hypotheses and Model

Based upon the viewpoints in the literature reviews the present study proposes that the promotion frequency and promotion type of I-Ching reading education has a significant effect on the temperament of a child. Changes in a child’s temperament lead to changes in the lifelong learning capability and bullying behavior. Therefore, we propose these hypotheses:

H1: The frequency of promotion and type of promotion in I-Ching education is positively correlated with improvements in child temperament.

H2: The temperament of a child positively affects their lifelong learning capability.

H3: The temperament of a child positively affects bullying behavior.

To study the research questions, we developed the following research model.

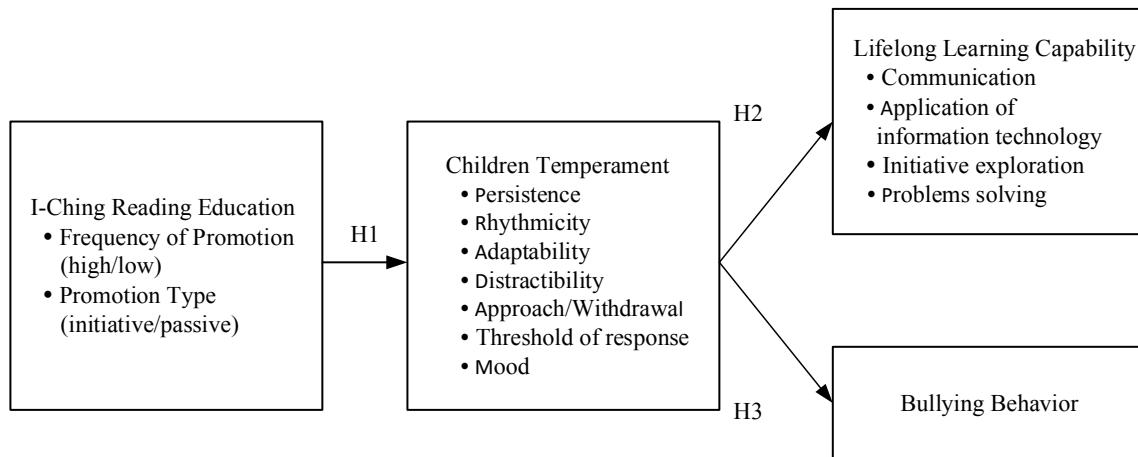


Figure 1 Research model

Sample and Data Collection

The samples for this study were selected from elementary schools in the northern, middle, southern, and eastern parts of Taiwan, where the study of the I-Ching has been promoted by I Ching University. Data collection involved a series of contacts that comprised emails, phone calls, and face to face meetings over a two-month period. A total of 2,063 elementary schools agreed to take part in this study. School faculties also took part in the study. A total of 1,552 participants returned the questionnaires with a response rate of 75.23%.

Measurement

In evaluating the recommended frequency, the study takes children learning the I-Ching and divides them into two categories: (1) High Frequency promotion: refers to the number of times the school conducts I-Ching learning activities, which can occur once per week or at least once a month. (2) Low Frequency promotion: refers to the number of times the school conducts I-Ching learning activities which can be offered once every two to five months, or once every six months, or only once a year. The promotion types are divided into two categories: (1) Initiative promotion type: is where school teachers use the time during extra-curricular activities to teach and explain the I-Ching, or scheduled specific periods of time to teaching classes on the I-Ching. (2) Passive promotion type: refers to a school where there are no teachers to give explanations, but there are books available for students to read independently. To measure child temperament, we adopted the earlier work of Thomas and Chess (1977) from which we focus on the dimension of: (1) persistence; (2) rhythmicity; (3) adaptability; (4) distractibility; (5) approach/withdrawal; (6) threshold of response; (7) mood. The measurement of children lifelong learning capability was developed based on the core concept and competence of grade 1-9 curriculum in Taiwan, which comprise the capabilities in initiative exploration, problems solving, the application of information technology, and communication. Measurement developed for bullying behavior were based on the classification of the Ministry of Education and the Child Welfare League Foundation, which comprise body bullying, language bullying, social bullying, fight back bullying, sex bullying, and cyber bullying.

Findings

Descriptive Analysis

Based upon 1,552 respondents, more than 65.9% of respondents were female and 33.6% of respondents were male. Overall, most teachers were between 40 and 49 years of age (50.4%) or between 30 and 39 years of age (36.6%). The highest educational level obtained was a bachelor's degree which counted for 51.4% of the respondents, followed by the master and doctoral degrees which counted for 45.6% of the respondents. The position's in the school were divided into school president, department director, grade teacher, and subject teacher, the response rate came to 1,552 respondents 7%, 9.4%, 62.8%, and 20.9% respectively.

This survey and questionnaire looked at the frequency in which schools promoted the children's study of the I-Ching, with 44.7% of schools adopting weekly I-Ching classes, and 17% of schools adopting monthly I-Ching classes for children, and the remaining 38.3% of schools having classes once every two to five months. Within the school's model for promoting children studying the I-Ching, 42.2% of schools placed reading material in specific areas allowing students to have free access. The other 59% of schools distributed I-Ching reading materials in class allowing students to read the material. 29.1% of schools arranged a specific time period within the school curriculum for the entire school to study the I-Ching together. 14.9% school teachers used the time for extra-curricular activities to teach the I-Ching, and give explanations. The results show that the pluralistic model was used more often in the promotion of I-Ching studies for children.

Table 1 Profile of participants

Variables	N	%
Gender		
Male	515	33.6 %
Female	1010	65.9 %
Age		
Below 29 years	66	4.2 %
30-39 years	567	36.6 %
40-49 years	781	50.4 %
50-59 years	123	7.9 %
60-65 years	12	0.8 %
Education		
Associate	48	3.0 %
Bachelor	797	51.4 %
Master or doctoral	707	45.6 %
School position		
President	109	7.0 %
Department director	145	9.4 %
Grade teacher	972	62.8 %
Subject teacher	323	20.9 %
The frequent promotion of children's learning the I-Ching		
Once a week	691	44.7 %
Once a month	247	17.0 %
Once every 2-5 months	61	3.9 %

Variables	N	%
Every six months	102	6.6 %
Once a year	99	6.4 %
Other	345	22.3 %
Promotion types for children learning the I-Ching		
Book placed at specific areas for student's independent learning	656	42.2 %
Schools distributing I-Ching reading materials in class for students to read	916	59.0 %
Teachers who specialize in teaching the I-Ching during extra-curricular activities	231	14.9 %
Course scheduled for the study of the I-Ching during specific time period for the entire school to participate	452	29.1 %

After children study the I-Ching, their temperament, lifelong learning capability and bullying behavior statistically improve as seen in table 1, the dimensions of a child's temperament comprise persistence, rhythmicity, adaptability, distractibility, approach/withdrawal, threshold of response, and mood. The mean numbers of the seven factors range from 3.75 to 3.88, in which mood, adaptability, and threshold response are relatively improved. In addition, the overall degree of improvement of children's temperament averaged 3.82. This shows that after a child learns the I-Ching, it can reliably improve the child's temperament for the better. In this study four factors in lifelong learning capability improved, the means numbers ranged from 3.77 to 3.86. In which it used the applications of information technology and problem solving and showed relatively better improvement. The overall degree of improvement in children's lifelong learning capability was an average of 3.81. In addition, the overall improvement in reducing bullying behavior was 3.81, showing that after children learned the I-Ching, not only their capability for lifelong learning improved but their bullying behavior was reduced.

Table 2 The means of improved markers in children's temperament, lifelong learning capability, and bullying behavior

Variables	Mean	S.D
Child temperament	3.82	.68
Persistence	3.75	.81
Rhythmicity	3.79	.91
Adaptability	3.83	.84
Distractibility	3.81	.72
Approach/withdrawal	3.80	1.04
Threshold of response	3.82	.85
Mood	3.88	.85
Lifelong learning capability	3.81	.66
Communication	3.79	.74
Application of information technology	3.86	.72
Initiative exploration	3.77	.75
Problem solving	3.80	.68
Bullying behavior	3.81	.86

The different promotion types for children studying the I-Ching for the improvement of child temperament

In this study the frequency and promotion types of children learning the I-Ching are divided into four categories seen in Figure 2. Exploring which of these four models produces the most significant results for children's temperament.

		Frequency of Promotion	
		High-frequency Promotion	Low-frequency Promotion
Promotion Type	Initiative Promotion	<p>Model A</p> <p>High-frequency and Initiative Promotion Model</p>	<p>Model C</p> <p>Low-frequency and Initiative Promotion Model</p>
	Passive Promotion	<p>Model B</p> <p>High-frequency and Passive Promotion Model</p>	<p>Model D</p> <p>Low-frequency and Passive Promotion Model</p>

Figure 2 The promotion matrix for children studying I-Ching

This study uses a one-way ANOVA analysis. Table 2 we found four kinds of promotion models for children leaning the I-Ching which improved the seven factors of children's temperament, the results showed that the high-frequency and initiative promotion model was significantly higher than the other three models in improving child temperament levels and better than the two promotion models, low-frequency and initiative promotion, and low-frequency and passive promotion. It can be seen that the high-frequency and initiative promotion model can significantly improve child's temperament levels. This indirectly shows that the promotion frequency of children learning the I-Ching can improve child temperament, and may be more important than the promotion type of I-Ching study.

Table 3 Examination of different promotion model for improving children's temperament

Variables	Promotion Model	n	Mean	S.D	Sources of Variance	Sum Squares	df	Mean Square	F-value	Post-hoc test
Persistence	A) High-frequency and initiative promotion	627	4.05	.77	Between	148.18	3	49.39	87.13**	A>C A>D B>C B>D
	B) High-frequency and passive promotion	287	3.97	.63	Within	806.70	1423	.57		

Variables	Promotion Model	n	Mean	S.D	Sources of Variance	Sum Squares	df	Mean Square	F-value	Post-hoc test
Rhythmicity	C) Low-frequency and initiative promotion	42	3.62	.79	Total	954.89	1426			
	D) Low-frequency and passive promotion	471	3.34	.80						
	A) High-frequency and initiative promotion	628	4.07	.82	Between	157.99	3	52.66	70.62**	
	B) High-frequency and passive promotion	288	4.04	1.18	Within	1064.16	1427	.75		A>D B>D C>D
	C) Low-frequency and initiative promotion	42	3.83	1.69	Total	1222.15	1430			
	D) Low-frequency and passive promotion	473	3.35	.51						
	A) High-frequency and initiative promotion	628	4.12	.69	Between	153.38	3	51.13	84.06**	
	B) High-frequency and passive promotion	288	4.09	.85	Within	867.93	1427	.608		A>C A>D B>C B>D
Adaptability	C) Low-frequency and initiative promotion	42	3.56	.75	Total	1021.31	1430			
	D) Low-frequency	473	3.42	.85						

Variables	Promotion Model	n	Mean	S.D	Sources of Variance	Sum Squares	of df	Mean Square	F-value	Post-hoc test
	and passive promotion									
Distractibility	A) High-frequency and initiative promotion	628	4.13	.68	Between	174.56	3	58.187	145.42**	
	B) High-frequency and passive promotion	288	4.04	.63	Within	571.01	1427	.400		A>C A>D B>C B>D
	C) Low-frequency and initiative promotion	42	3.52	.82	Total	745.57	1430			
	D) Low-frequency and passive promotion	473	3.37	.54						
Approach/withdrawal	A) High-frequency and initiative promotion	627	4.10	1.01	Between	182.41	3	60.803	59.64**	
	B) High-frequency and passive promotion	288	4.12	1.51	Within	1455.80	1428	1.019		A>C A>D B>C B>D
	C) Low-frequency and initiative promotion	42	3.48	.73	Total	1638.21	1431			
	D) Low-frequency and passive promotion	475	3.35	.56						
Threshold response	of A) High-frequency and	627	4.12	.64	Between	164.11	3	54.70	88.01**	A>C A>D B>C

Variables	Promotion Model	n	Mean	S.D	Sources of Variance	Sum Squares	df	Mean Square	F-value	Post-hoc test
	initiative promotion									B>D
	B) High-frequency and passive promotion	288	4.09	.62	Within	886.95	1427	.622		
	C) Low-frequency and initiative promotion	42	3.60	.80	Total	1051.06	1430			
	D) Low-frequency and passive promotion	474	3.39	1.02						
	A) High-frequency and initiative promotion	627	4.22	.67	Between	167.994	3	55.998	93.44**	
Mood	B) High-frequency and passive promotion	288	4.10	.61	Within	854.044	1425	.599		A>C A>D B>C B>D
	C) Low-frequency and initiative promotion	42	3.65	.90	Total	1022.038	1428			
	D) Low-frequency and passive promotion	472	3.46	.96						
	A) High-frequency and initiative promotion	624	4.12	.59	Between	163.948	3	54.649	162.94**	A>C A>D B>C B>D
Total	B) High-frequency and passive promotion	284	4.07	.62	Within	472.902	1410	.335		

Variables	Promotion Model	n	Mean	S.D	Sources of Variance	Sum Squares	of df	Mean Square	F-value	Post-hoc test
	C) Low-frequency and initiative promotion	42	3.61	.73	Total	636.850	1413			
	D) Low-frequency and passive promotion	464	3.38	.52						

Note : *p < .05 , **p < .01

The Relationship between Children's Temperament and Promotion Model

This study used a hierarchical multiple regression analysis to inquire about the relationship between the promotion frequency (high and low), and promotion type (initiative and passive) on children learning the I-Ching, and the improvement of children's temperament as seen in table 4.

Table 4 Hierarchical multiple regression analysis among different promotion models, and children's temperament

Model	Persistence (M1)			Rhythmicity (M2)			Adaptability (M3)		
	SE	β	p	SE	β	p	SE	β	p
Control Variables									
Sex	.037	.005	.825	.043	-.024	.332	.039	-.030	.232
Age	.029	.072**	.004	.033	.125**	.000	.029	.061*	.015
Promotions									
Frequency (High/Low)	.052	.355**	.000	.059	.334**	.000	.054	.377**	.000
Type (Initiative /Passive)	.050	.066*	.030	.057	.043	.160	.052	.023	.454
R²	.159			.138			.153		
Adjusted R²	.157			.136			.151		
ΔR^2	.157			.129			.152		
F _(4,1406)	66.469**			56.464**			63.646**		
VIF	1.534			1.537			1.545		

Note:

- *p < .05 **p < .01
- Regression coefficients here are standardized regression coefficients.
- Gender: male=1, female=0; Age: ~20years=1, 20~29years=2, 30~39years=3, 40~49years=4, 50~59years=5, 60~69 years =6.

Model	Distractibility (M4)			Approach/withdrawal (M5)			Threshold of response (M6)		
	SE	β	p	SE	β	p	SE	β	p

Control Variables									
Sex	.031	-.047	.047	.050	-.005	.854	.039	-.050	.044
Age	.024	.074**	.002	.038	.014	.587	.030	.107	.000
Promotions									
Frequency (High/Low)	.043	.440**	.000	.070	.331**	.000	.054	.388**	.000
Type (Initiative /Passive)	.042	.076**	.008	.067	.004	.894	.052	.024	.431
R²	.240			.111			.167		
Adjusted R²	.238			.108			.165		
ΔR²	.237			.111			.160		
F _(4,1406)	111.286**			43.910**			70.585**		
VIF	1.543			1.536			1.535		

Model	Mood (M7)			Total (M8)		
	SE	β	p	SE	β	p
Control Variables						
Sex	.038	-.048	.050	.029	-.032	.165
Age	.029	.111**	.000	.022	.098**	.000
Promotions						
Frequency (High/Low)	.053	.373**	.000	.040	.478**	.000
Type (Initiative /Passive)	.051	.064*	.034	.038	.056*	.048
R²	.177			.265		
Adjusted R²	.175			.262		
ΔR²	.170			.261		
F _(4,1406)	75.824**			125.364**		
VIF	1.536			1.531		

In table 4 shows gender and age of teacher's surveyed as control variables, and promotion frequency and promotion type included in the analysis as independent variables. It is evident from the following table M1 to M7, promotion frequency, and promotion types having a positive and significant effect on three factors of children's temperament being persistence, distractibility, and mood. Which showed the high-frequency and initiative promotion model achieved relatively higher improvement levels for children's temperament. In addition, the promotion frequency affected four factors rhythmicity, adaptability, approach/withdrawal, and threshold of children's temperament. It also produced positive and significant effects showing that when the promotion frequency of the I-Ching is increased it can also enhance and improve the child's temperament. From M8 we find the overall score of the promotion frequency and promotion type for children's temperament which produces positive predictive effects. This shows that the high frequency and initiative promotion model positively enhanced the overall level of children's temperament.

The Relation among Children's Temperament, Lifelong Learning Capability, and Bullying Behavior

This study uses a hierarchical multiple regression analysis to inquire whether children's ability to learn and bullying behavior improve after their temperaments improve. The analysis conducted in Table 5 show the gender and age of teachers surveyed as control variables. We analyzed dependent variables in children's temperament and the degree of improvement in children's lifelong learning ability and bullying behavior. M9 shows seven factors of child temperament generated significant positive predictive effects on ($\beta = .088 \sim .299$, $p < .01$) children's lifelong learning capability. This shows that after the child's temperament improves it can effectively enhance the lifelong learning capacity of children. In addition, M10 shows how the seven temperamental factors improve the level of bullying behavior with positive and significant predictive effect ($\beta = .055 \sim .207$, $p < .05$), this results show that children's temperament are improved it can effectively improve the child's bullying behavior. The results of this study found that children who studied the I-Ching actively with a high frequency model effectively enhanced overall improvement in child temperament. Then, the positive impact of children learning the I-Ching can significantly enhance the child's lifelong learning capability and reduce bullying behavior.

Table 5 Hierarchical multivariate regression analysis among different children's temperament, lifelong learning, and child bullying behavior

Model	Lifelong learning capability (M9)			Child bullying behavior (M10)		
	SE	β	p	SE	β	p
Control Variables						
Sex	.014	-.011	.332	.030	-.029	.114
Age	.010	-.009	.416	.022	-.008	.665
Child Temperament						
Persistence	.014	.137**	.000	.029	.145**	.000
Rhythmicity	.011	.088**	.000	.023	.102**	.000
Adaptability	.013	.199**	.000	.026	.111**	.000
Distractibility	.018	.299**	.000	.038	.207**	.000
Approach/withdrawal	.009	.088**	.000	.019	.055*	.016
Threshold of response	.012	.124**	.000	.026	.139**	.000
Mood	.013	.173**	.000	.027	.116**	.000
R²	.817			.499		
Adjusted R²	.816			.496		
ΔR^2	.814			.496		
F _(9,1490)	739.446**			164.793**		
VIF	2.139			2.127		

Note: * $p < .05$. ** $p < .01$.

Conclusion and Discussion

This study investigates the general situation of children studying the I-Ching in Taiwan. In 2008, I Ching University began promoting the study of I-Ching by children, and now has 1,870,000 elementary school students benefiting from the study of the I-Ching. In this study the subjects took part once a week or at the least once a month for a total of 61.7%. The percentage of specialized teachers actively teaching and giving oral explanations amounted to 44.0%. From this it can be seen that Taiwan has been actively

and vigorously promoting the study of the I-Ching in children. In addition, the study found that after children studied the I-Ching, seven temperamental factors and four lifelong learning capability factors and school bullying behavior improved by more than 3.75. In terms of improvement, the average for temperament was 3.82, and also both averages for lifelong learning capability and school bullying behaviors were 3.81. The results show that the temperament of children learning the I-Ching significantly improved as well as the lifelong learning capability, and bullying behavior. This may be due to the recitation of ancient sagely wisdom, which allows children to be exposed to the moral character of the ancients influencing and purifying their minds and fostering the right values of life, and the development and strengthening of a sound moral character (Zhou Fei, 1991; Zhai Ben Rui, 2000). In this study we found that the high-frequency and initiative promotion model with an average degree of improvement was significantly better than the other three promotion models.

It shows that the promotion of I-Ching study by children at a high-frequency and initiative promotion model are the most effective in improving the temperament of children, followed by the high-frequency and passive promotion model which was significantly better than the low-frequency and initiative promotion and low-frequency and passive promotion models. This indirectly shows that when promoting the learning of the I-Ching to children the promotion frequency is more important than the promotion type. In addition, this study found that the promotion frequency of children learning the I-Ching influenced the total average of seven factors in children's temperament which have a positive and significant predictive result. In addition the promotion type influenced the total average of a child's temperament; three temperamental factors, persistence, distractibility, and mood were found to be positively affected. However, the results supports hypothesis 1. The results from this study pertain to an exploration for findings. In past studies we did not find similar results. It is recommended that when schools promote children's learning of the I-Ching, they should increase the frequency of I-Ching learning activities, and use explanatory models of teaching to improve the child's temperament.

Furthermore, seven factors of children's temperament have produced positive and significant predictive result on lifelong learning capability and bullying behavior. These result support hypothesis 2 and hypothesis 3, which have been proposed by scholars in the past (Thomas and Chess, 1977; Carey, 1998; Lengua, 2003; Frick and Morris, 2004; Rothbart and Bates, 2006). It has already been proposed that one's temperament can help improve individual interpersonal relations, learning and development, emotional management, environmental adaptation and problem solving. The results of the study also found that when children's temperament improved it enhanced their capability for lifelong learning and reduced bullying behavior. Therefore, after learning the I-Ching not only do children's temperaments improve but continue to have positive effects in lifelong learning capability and bullying behavior. Based on this, the present study suggests continued investigation of the aftereffects of learning the I-Ching, such as emotional intelligence, problem solving, and positive thinking.

References

王財貴 (Wang Tsai-kuei) (1994)。兒童讀經教育說明手冊。臺中：臺中師院語文教育中心、宗教哲學研究社華山講堂。

牟宗三 (Mou Tsung-san) (1992)。生命的學問。臺北：三民。

周慧菁 (Zhou Huijing) (2003)。品格，新世紀的第一堂課。台北市：天下雜誌。

周菲 (Zhou Fei) (1991)。中國的教育文化與思維方式。大陸：遼寧教育出版社。

何琦瑜 (Ho Qiyu) (2004)。品格，大不如前。品格決勝負－未來人才的秘密。台北：天下雜誌。

胡夢鯨 (Hu Mengjing) (1997)。以終生教育理念為主軸的教育現代化發展策略。現代化研究，第十卷，頁 21-34。

翟本瑞 (Zhai Ben Rui) (2000)。正式教育與非正式教育：兒童讀經運動的教育社會學反省。載於教育與社會－迎接資訊時代的教育社會學反省。頁 51-82。臺北：揚智。

鄧煌發 (Deng Huang Fa) (2007)。校園安全防護措施之探討－校園槍擊、校園霸凌等暴行事件之防治。中等教育，58 (5)，8-29。

Carey, W. B. (1998). Temperament and behavior problems in the classroom. *School Psychology Review*, 27 (4), 522-533.

Delors, J. et al (1996). *Learning: The Treasure Within*. Paris: UNESCO Publishing.

Eisenberg, N., Fabes, R. A., Shepard, S.A., Murphy, B. C., Guthrie, I. K., Jones, S., et al. (1997). Contemporaneous and longitudinal prediction of children's social functioning from regulation and emotionality. *Child Development*, 68, 642-664.

Eisenberg, N., Guthrie, I. K., Fabes, R. A., Reiser, M., Murphy, B.C., Holmgren, R., et al. (1997). The relations of regulation and emotionality to resiliency and competent social functioning in elementary school children. *Child Development*, 68, 295-311.

Eisenberg N., Cumberland A., Spinrad T. L., Fabes R. A., Shepard S. A., Reiser M., Murphy B. C., Losoya S. H., Guthrie I. K. (2001). The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. *Child Development* 72, 1112-1134.

Eisenberg, N., Valiente, R., Fabes, R. A., Smith, C. L., Reiser, M., Shepard, S. A., et al. (2003). The relations of effortful control and ego control to children's resiliency and social functioning. *Developmental Psychology*, 39, 761-776.

Frick, P. J., & Morris, A. S. (2004). Temperament and developmental pathways to conduct problems. *Journal of Clinical Child and Adolescent Psychology*, 33, 54-68.

Graczyk, P. A., Weissberg, R. P., Payton, J. W., Elias, M. J., Greenberg, M. T., & Zins, J. E. (2000). Criteria for Evaluating the Quality of School-Based Social and Emotional Learning Programs. Daniel Goleman (Foreword), Reuven Bar-On (Ed.), James D. A. Parker (Ed.). *The Handbook of Emotional Intelligence: Theory, Development, Assessment, and Application at Home, School and in the Workplace*. San Francisco, CA: Jossey-Bass, 391-410.

Lengua, L. J. (2003). Associations among emotionality, self-regulation, adjustment problems, and positive adjustment in middle childhood. *Applied Developmental Psychology, 24*, 595-618.

Martin, R. P. (1994). Child temperament and common problems in schooling: Hypotheses about causal connections. *Journal of School Psychology, 32*, 119-34.

OECD (2005). *Measuring the social outcomes of learning*. Paris: OECD.

Olweus, D. (1991). Bully/victim problems among school children: Basic facts and effects of a school based intervention program. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp.411-447). New Jersey, NJ: Erlbaum.

Olweus, D. (1993). *Bullying at school: what we know and what we can do*. Cambridge, MA: Blackwell Publishers.

Olweus, D. (1999). Sweden. In P. K. Smith, Y. Moritani, J. Junger-Tas, D. Olweus, R. Catalano, & Sleep (Eds), *The nature of school bullying: A cross-national perspective*. (pp.7-28) London, England: Rutledge.

Rothbart, M. K., & Bates, J. E. (2006). Temperament. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th Ed., pp.99-166). New York, NY: Wiley.

Rothbart, M.K., & Jones, L. B. (1998). Temperament, self-regulation, and attention. *School Psychology Review, 27*, 479-492.

Rothbart, M. K., Ahadi, S. A., & Evans, D. E. (2000). Temperament and personality: Origins and outcomes. *Journal of Personality and Social Psychology, 78*, 122-135.

Rothbart, M. K. (1989). Temperament in childhood: a framework. In G. A. Kohnstamm, J. E. Bates, & M. K. Rothbart (Eds.), *Temperament in childhood* (pp.59-73). New York: Wiley.

Sanson, A., Hemphill, S. A. & Smart, D. (2002). Temperament and social development. In: *Blackwell Handbook of Childhood Social Development* (Eds P.K. Smith & C. Hart), pp.97-115. Blackwell, Malden, MA.

Sourander, A., Jensen, P., Rönning, J. A., Niemelä, S., Helenius, H., Sillanmäki, L., Kumpulainen, K., Piha, J., Tamminen, T., Moilanen, I., & Almqvist, F. (2007). What is the early adulthood outcome of boys who bully or are bullied in childhood? The Finnish "From a Boy to a Man" study. *Pediatrics, 120* (2), 397-404.

Stocker, C., Dunn, J. (1990). Sibling relationships in childhood: Links with friendships and peer relationships. *British Journal of Developmental Psychology*, 8 (3), 227-244.

Thomas, A., & Chess, S. (1977). *Temperament and development*. Oxford, England: Brunner/Mazel.

Welsh M., Parke R. D., Widaman, K., & O'Neil, R. (2001). Linkages between children's social and academic competence: A longitudinal analysis. *Journal of School Psychology*, 30, 463–481.

Contact email: liyueh@wxc.org.tw