



JOURNAL
OF • BALTIC
SCIENCE
EDUCATION

ISSN 1648-3898

Abstract. *The purpose of this study was to explore the relationships among physical education teachers' psychological capital, work stress, and creative teaching at junior and senior high school levels. The questionnaire was distributed to 58 schools in Taiwan and research sample were junior and senior high school physical education teachers. 395 questionnaires were distributed, 369 questionnaires were valid for statistical analysis. Hierarchical regression was used to test the impact of teachers' psychological capital on their work stress and creative teaching. The findings showed that while self-efficacy, hope, and optimism of psychological capital significantly influenced teachers' creative teaching positively, personal interaction and professional knowledge of work stress express negative impacts. In addition, it was found that teachers with higher personal interaction stress and higher professional knowledge stress had lower creative teaching. The study suggests to increase physical education teachers' psychological capital and enhance teachers' creative teaching and students' satisfaction.*

Key words: *psychological capital, work stress, creative teaching, physical education teachers.*

Hsiu-Chin Huang

Tatung Institute of Technology, Taiwan

Li-Wei Liu

Chaoyang University of Technology, Taiwan

Huey-Hong Hsieh

Taiwan Shoufu University, Taiwan

Chia-Ming Chang

National Chiayi University, Taiwan

RELATIONSHIPS AMONG PHYSICAL EDUCATION TEACHERS' PSYCHOLOGICAL CAPITAL, WORK STRESS, AND CREATIVE TEACHING

**Hsiu-Chin Huang,
Li-Wei Liu,
Huey-Hong Hsieh,
Chia-Ming Chang**

Introduction

At the turn of 21st century, the psychologist Martin Seligman (2002) recognized an imbalance in psychological research. Previous research in this field focused on the negative side of personal psychology and gave little attention to the positive side. In light of this problem, Seligman called for research in positive psychology, following the leading edge of positive, the concept of Psychological Capital (i.e., "PsyCap" in abbreviation) was first proposed by the psychologist Martin Seligman in 2002 in his book of *Authentic Happiness* (Luthans and Youssef, 2004). From then on, the emphasis on human positive psychological power became the core concept of PsyCap and its core elements have been identified to be self-efficacy, hope, optimism, and resiliency (Luthans et al., 2007). Specifically, self-efficacy is referred to as a kind of belief through that individual consider own self to have capabilities in organizing and implementing actions to reach the goal; in other words, individual believes in him/herself for performing capability degree in various situations (Bandura, 1997). Hope is defined as people who are able to establish clear goals, imagine multiple workable pathways toward those goals, and persevere, even when obstacles get in their way (Snyder, 2002). Optimism has been suggested to be the positive view to future as well as the positive attitude and attribution toward present and future success (Park, 2005). Finally, resiliency refers to the phenomenon that individuals still keep their willpower to speedily solve problems and obtain success even being suffered from adversity and frustration (Werner and Smith, 1982).

In recent years, the work of physical education teachers in public or private junior and senior high schools have become more and more complicated. In addition to teach physical education classes, they need to hold various on-campus sport competitions, serve as coaches for school's sport team, and manage sport venue and facilities. Due to this fact, physical education teachers have been bearing increasingly stress for a long time, which



in turn causes their out-of-condition physical performance, psychology discomfort, self-esteem decrease, thus leads to higher work burnout rate as the result of the lack of work fervor (Hsu, 1993). Even so, previous studies also suggest that individuals have different experience and attitude in accepting various degrees on stress. In general, it has been argued that appropriate stress can play a role as incentive to individuals' potentials as well as promoting challenges and achievement (Lee, 1994). On the contrary, overloaded stress will inevitably cause a negative impact; for instance, the choices of evading or forgiving behavior manners on encountering work situations may hurt people's physical and mental health (Fan and Huang, 2012).

It is noted that traditional physical instructions have one-sidedly focused on whether students can learn sport skills (Pan and Chou, 2002). Additionally, numerous physical education teachers have addressed that physical education curriculum cannot adopt interesting ways to implement students' skill learning. Therefore, there occurs the need for integrating game and play concepts into physical education curriculum to promote students' interest and happiness in physical education classes. This basis has beneficially pointed out that amusing physical education instruction model can really satisfy students' demand. Nevertheless, how students experience and perceive different feelings depends on teachers' institutional creativity development. For instance, teachers' actions in modifying the size of facilities, rules, and number of participants can effectively increase students' participation willingness, motivation, attempts for overcoming given activity challenges as well as satisfying their curiosity (Keh et al., 2008). In response to this student- and teacher-centered trend, teachers' creativity instructional capabilities have become a research topic of interest in current years. Particularly, the main purpose of creativity teaching has been identified to promote incentives and cultivate students' creativity and creative thinking during the teaching process (Chen and Wang, 2004). In other words, throughout the teaching process, teachers present their creativity using instructional behavior and make their instructional steps more active and diverse in order to create incentives and amusement that inspires students' autonomous learning willingness and stimulates their creative behaviors. Therefore, creative instruction has been perceived to be meaningful and have a certain value to students (Wu, 2002; Chen and Hu, 2008).

In the extant literature, Csikszentmihalyi (1996) refers creative teaching to the development and the use of novel, original, or inventive teaching methods. Based on this premise, physical education teachers' creative teaching in this study is defined as the capabilities of junior and senior high school physical education teachers in immediately adapting and modifying old method with their creative ideas in order to generate multiple and novel teaching methods. As such, teachers' actions in encouraging students to participate in physical education curriculum and seeking for academic and instructional resource support in a planned way can really and effectively put their creative educating into instructional atmosphere and in turn benefit students' performance.

The Relationship between Psychological Capital and Creative Teaching

In the creative teaching-related literature, self-efficacy, hope, optimism, and resiliency in psychological capital have been proven to effectively promote work performance (Luthans et al., 2005). For instance, teachers' happiness feeling which belongs to positive and intrinsic experience can help to generate positive thinking (Abbe et al., 2003). Upon possessing optimistic, hope, and healthy psychological function, teachers will find it easier to generate strong social support and fruitful social interaction behavior (Harker and Keltner, 2001), behave in beneficial manners to others (Gooty et al., 2009), and be more willing to share with others (Williams and Shiaw, 1999). Wu and Hsu (2010) found that the happier feelings teachers had on teaching, the higher self-affirmation they expressed on their creative teaching performance. Among the factors of creative personality, work enthusiasm has been perceived to exert the most significant impact on creative teaching. Further elaborating, Ho (2009) suggests that every factor included in creative personality of college physical education teachers has a significantly positive impact on their creative teaching behavior. In line with this, Wu (2011) states that teachers with higher creative personality will have higher intrinsic motivation on creative teaching. Based on these premises, intrinsic motivation of creative teaching has been considered to have a directly significant impact on creative teaching behavior. By examining senior high school physical education teachers' creative personality, self-efficacy of creative teaching (Hsu et al., 2008), intrinsic motivation, and teaching behavior present that all factors of creative personality have significantly positive impacts on intrinsic motivation of creative teaching. This can be explained that higher creative personality leads to better intrinsic motivation and self-efficacy on creative teaching, which in turn exerts positive impacts on teachers' creative teaching behavior. Therefore, creative personality can also be used to explain creative teaching behavior. Moreover, self-efficacy of creative teaching has been suggested to be aroused by intrinsic motivation



of creative teaching and have impact on creative teaching behavior. Based on the discussion of previous related studies, this study proposes that psychological capital will affect creative teaching performance.

The Relationship between Work Stress and Creative Teaching

Hsu (2005) argues that physical education is an important learning curriculum and has direct impacts on students' intelligence, emotion, aesthetic feeling, sociality, body, and motion development. Despite this fact, most of parents in Asia remain considering physical education merely as a joyful class. Due to this reason, in Taiwan, physical education classes are still sometimes adjusted as the supplement time for enhancing students' lessons, which in turn causes underestimation feeling on physical education teachers. Besides this pressure, work stress has been indicated to be a critical factor influencing teachers' creative teaching; however, its impact remains inconsistent. Specifically, Weng (2007) addresses heavier work stress leads to worse creative teaching performance whereas Chang (2009) argues that teachers' work stress has a significantly positive impact on their creativity. Unlike these studies, Wu (2008) strongly states that there is no significant relationship between junior high school teachers' overall work stress and their teaching efficiency.

The extant psychological capital-related literature, no matter domestic or abroad, has mainly focused on the relationships among employee's psychological capital, work performance, salary, or work attitude and work satisfaction in the industrial field. As such, psychological capital has been widely discussed and categorized into four critical dimensions of self-efficiency, hope, optimism, and resiliency. Unlike the traditional concept of psychology that pays more attention to dealing with psychological problems and mental diseases, the new concept of psychological capital has been perceived as a meaningful issue that worth investigating in psychology and organizational behavior since it emphasizes holistic development of individual advantages and focuses on building individuals' positive emotion and characteristic. Nonetheless, missing from the extant literature is that current psychological capital-related studies less focuses on exploring the impacts of teachers' psychological capital and work stress on creative teaching in junior and senior high school levels. Therefore, this study tried to examine the relationships among them. The effort will help to clarify the influencing factors of psychological capital impacts on physical education teachers' creative teaching and identify the work stress impact levels on creative teaching among them.

Methodology of Research

General Background of Research

Based on the background and motivation stated above, given the sample from junior and senior high schools' physical education teachers, two purposes of this study are described as follows: (a) to investigate the different levels of psychological capital and work stress impacts on creative teaching among background variables; and (b) to examine the effects of psychological capital and work stress on creative teaching. Based on the forgoing purposes, this study has three hypotheses as follows:

- H1: The impacts of psychological capital and work stress on creative teaching vary with background variables.
- H2: Psychological capital has impacts on creative teaching.
- H3: Work stress has impacts on creative teaching.

Sample Selection

The research subjects were junior and senior high school physical education teachers in Taiwan. Questionnaires were mailed to 60 schools randomly selected from four different regions, north, central, south and east; and research subjects were chosen through cluster sampling (see Table 1.). The researcher informed school personnel by telephone, explained the research purpose and ensured to keep confidential information. Schools that agreed to participate in the research gave consent to the researcher. The researcher sent out questionnaires by mail to subjects and contacted each individual subject to assist with the research project. Subjects were asked to return the questionnaire by self-addressed envelope. Following data collection, the researcher examined questionnaires and eliminated those with missing and incomplete data to ensure the validity. A total of 395 questionnaires were distributed. 369 questionnaires were returned for statistical analysis, with a response rate of 93.4%



Table 1. Number of schools during academic year 2014, and research design.

Region	No. of school	%	No. of school selected	No. of school returning questionnaires	No. of questionnaires distributed	Valid returned questionnaires	Returning rate (%)
North	461	38.3	23	22	173	166	93.4%
Central	326	27.1	16	16	103	92	
South	350	29.1	18	17	101	94	
East	67	5.5	3	3	18	17	
Total	1204	100.0	60	58	395	369	

Note: $1204 * 5\% = 60$ schools

The demographic statistical analysis of 369 valid respondents was presented as in Table 2. Out of 369 respondents, 233 were male (63.1%) and 136 were female (36.9%) and full time physical education teachers accounted for 69.9% (258 respondents) in comparison with 30.1% of substitute teachers (111 respondents). Regarding school types, 134 respondents (36.3%) were senior (vocational) high school teachers and 235 (63.7%) were junior high school teachers. In terms of age, 96 teachers (26.0%) were under 30 years old, 172 (46.6%) were between 31 and 40 years old, 75 (20.3%) were between 41 and 50 years old, and 26 (7.0%) were above 50 years old. Concerning educational background, 9 respondents graduated from college (2.4%), 220 were from university (59.6%), 139 obtained master degree (37.7%), and 1 achieved doctoral degree (0.3%). Finally, regarding teaching seniority, 107 teachers (29.07%) had been teaching under 5 years, 115 (31.2%) had teaching experience between 6 and 10 years, 80 (21.7%) teaching experience between 11 and 15 years, and 67 (28.2%) had been teaching for over 16 years.

Table 2. Demographic statistical analysis.

Variable	Group	Frequency	Percentage (%)
Gender	Male	233	63.1
	Female	136	36.9
School type	Senior high (vocational) school	134	36.3
	Junior high school	235	63.7
Age	Under 30 years old	96	26.0
	31-40 years old	172	46.6
	41-50 years old	75	20.3
	Above 51 years old	26	7.0
Teaching position	Full time teacher	258	69.9
	Substitute teacher	111	30.1
Educational background	College	9	2.4
	University	220	59.6
	Master	139	37.7
	Doctor	1	0.3
Teaching seniority	Under 5 years	107	29.0
	6-10 years	115	31.2
	11-15 years	80	21.7
	Above 16 years	67	18.2



Instrument and Procedures

The questionnaires was divided into four parts, namely (1) basic information, (2) psychological capital scale, (3) work stress scale, and (4) creative teaching scales. The detailed descriptions presented as follows:

1) Basic information

This part aimed to collect respondents' data on gender, educational background, current position, teaching seniority, current teaching situation, and grade of teaching.

2) Psychological capital scale

This part was based on Chang et al. (2013) and Luthans (2002) to modify and develop 20 questionnaire items, being measured by five-point Likert scale which ranged from "strongly agree" to "strongly disagree". The exploratory factor analysis (EFA) was then adopted to test reliability of the psychological capital scale. The result indicated 4 factors and 20 accordant questions, specifically hope (6 questions), self-efficacy (6 questions), resiliency (4 questions), and optimism (4 questions), indicating the 63.99% total variance explained. In the next step, reliability was assessed based on coefficient of internal consistency. The achieved Cronbach's α coefficient for these factors were .90 (hope), .87 (self-efficacy), .85 (resiliency), and .80 (optimism), respectively. In addition, the Cronbach's α coefficient of psychological capital scale was .93, suggesting a high internal consistency and thus high reliability.

3) Work stress scale

This study was based on are based on Hsu (2007) to develop the work stress scale of public and private junior high school teachers which included five parts of administrative coordination, work load, personal interaction, students discipline, and professional knowledge, being measured using the five-point Likert scale ranging from "strongly agree" to "strongly disagree". The exploratory factor analysis (EFA) was then adopted to test reliability of the work stress scale. The obtained results indicated 5 factors which were academic coordination (5 questions), personal interaction (5 questions), workload (5 questions), professional knowledge (3 questions), and students discipline (3 questions), indicating 69.14% total variance explained. Regarding reliability test, the achieved Cronbach's α coefficient for these factors were .92 (academic coordination), .85 (personal interactions), 0.85 (workload), .76 (professional knowledge), and .84 (student discipline). In addition, the Cronbach's α coefficient of work stress scale was .82, suggesting a high internal consistency and thus high reliability.

4) Creative teaching scale

This study was based on the physical creative teaching behavior scale of Chiu (2005) and Liu (2008) to modify and develop a total of 17 questionnaire items. In particular, the creative teaching scale was divided into three aspects of cognition, affection, and skill, among which cognition referred to interactions between individual and environment, affection referred to the understanding of the practices of creative teaching and creative attitude, and skill was teacher's real actions on creative teaching. All questionnaire items were measured using the five-point Likert scale, ranging respectively from "totally inconformity" to "totally conformity". The exploratory factor analysis (EFA) was then adopted to test reliability of creative teaching scales. The obtained results indicated 3 factors which were skill (8 questions), affection (5 questions), and cognition (5 questions), indicating 65.61% total variance explained. Regarding reliability test, the achieved Cronbach's α coefficient for these factors were .88 (skill), .90 (affection), and .85 (cognition). In addition, the Cronbach's α coefficient of creative teaching scale was .93, suggesting a high internal consistency and thus high reliability.

Data Analysis

The current study used SPSS Statistics for Windows 20.0 Version to analyze the data. The significant level of statistic test was based on $\alpha=.05$. The quantitative analysis of the questionnaires was conducted through descriptive statistics, hierarchical regression to analyze background variables (i.e., gender, age, educational background, and current position) to test the impact of teachers' psychological capital on their work stress and creative teaching.



Results of Research

The Impact of Junior and Senior High School Physical Education Teachers' Educational Background, Psychological Capital, and Work Stress on Creative Teaching

Through hierarchical regression, this study expected to respectively analyze the impacts of junior and senior high school physical education teachers' background variables on their creative teaching. The achieved results (Table 2) showed that when being put into the models, the background variables of gender, school types, age, current teaching position, educational background, and teaching seniority exerted no significant explanatory power on junior and senior high school teachers' creative teaching ($R^2=.014$, $F=0.832$, $p>.05$), indicating no explanatory power of the background variables on physical education teachers' creative teaching.

In the next step, four dimensions of psychological capital (self-efficacy, hope, optimism, and resiliency) were put into model to test their impacts on teachers' creative teaching. Model 2 presented that their explanatory power on junior and senior physical teachers' creative teaching was significant ($R^2=.371$, $F=21.144$, $p<.01$) with an obvious increase of 35.8% in explanatory power in comparison with the previous model ($\Delta R^2=.358$, $\Delta F=50.924$, $p<.01$). Hence, it was proven that four dimensions of psychological capital could effectively promote the model's explanatory power. It was noted that among these dimensions, the higher self-efficacy could lead to better creative teaching (standardizing $\beta=.350$, $t=5.903$, $p<.01$), the higher hope could enhance better creative teaching (standardizing $\beta=.201$, $t=3.334$, $p<.01$), and the higher optimism could promote better creative teaching (standardizing $\beta=0.152$, $t=2.786$, $p<.01$). Therefore, it was concluded that self-efficacy, hope, and optimism of junior and senior high school physical education teachers' psychological capital had positive impacts on their creative teaching.

Finally, five dimensions of work stress (administrative coordination, workload, personal interaction, student discipline, and professional knowledge) were put into model to test their impacts on teachers' creative teaching. Model 3 indicated that their explanatory power on junior and senior physical teachers' creative teaching was significant ($R^2=.416$, $F=16.785$, $p<.01$) with an increase in explanatory power in comparison with the previous model ($\Delta R^2=.045$, $\Delta F=5.444$, $p<.01$). Hence, it was proven that five dimensions of work stress could effectively promote the model's explanatory power. In addition, Model 3 showed that background variables had no significant explanatory power on junior and senior physical teachers' creative teaching.

Noteworthy, three factors of self-efficacy, hope, and optimism in psychological capital were proven to have positive impacts on teacher creative teaching. When adding work stress into control variables, these three factors achieved an additionally increase of 4.5% of explanatory power. Hence, it could be observed that the increasing explanatory power was from the negative impact of personal interaction and professional knowledge of work stress on teachers' creative teaching. The results therefore showed that junior and senior high school physical education teachers with higher personal interaction stress expressed lower creative teaching (standardizing $\beta=-.125$, $t=-2.689$, $p<.01$); similarly, teachers with higher professional knowledge stress expressed lower creative teaching (standardizing $\beta=-.152$, $t=-3.469$, $p<.01$).

Table 2. Hierarchical regression analysis of creative teaching of physical education teachers in high schools.

Variables	Model 1			Model 2			Model 3		
	Beta	t	p	Beta	t	p	Beta	t	p
Gender	-.031	-.581	.562	.071	1.620	.106	.054	1.245	.214
School type	-.047	-.896	.371	-.024	-.564	.573	-.020	-.473	.637
Age	-.004	-.048	.962	-.055	-.827	.409	-.047	-.716	.475
Current teaching position	.013	.202	.840	-.004	-.085	.932	-.006	-.117	.907
Educational background	.079	1.460	.145	-.001	-.023	.982	-.035	-.821	.412
Teaching seniority	-.060	-.694	.488	-.079	-1.131	.259	-.103	-1.518	.130
Self-efficacy				.350	5.903*	.000	.305	5.021*	.000
Hope				.201	3.334*	.001	.186	3.143*	.002



Variables	Model 1			Model 2			Model 3		
	Beta	t	p	Beta	t	p	Beta	t	p
Optimism				.152	2.786*	.006	.147	2.726*	.007
Resiliency				.020	.364	.716	-.019	-.343	.732
Academic coordination							.092	1.890	.060
Workload							-.051	-1.066	.287
Personal interactions							-.125	-2.689*	.008
Student discipline							-.076	-1.573	.117
Professional knowledge							-.152	-3.469*	.001
R2		.014			.371			.416	
F		0.832			21.144*			16.785*	
P		.546			.000			.000	
△R2		.014			.358			.045	
△F		0.832			50.924*			5.444*	
△P		.546			.000			.000	

* $p < .01$

Discussion

This study finds the background variables of junior or senior high school physical education teachers exert no explanatory power on their creative teaching, which is consistent with previous studies that gender and age have no significant impact on self-efficacy of creative teaching (Wu, 2011; Ho, 2009; Hsu et al., 2008), teachers' educational background has no impact on their creative teaching (Liu, 2008), and teachers' circumstances (i.e., serves as administration or homeroom teachers) has no impact on their creative teaching (Weng, 2007).

This study shows that four dimensions of self-efficacy, hope, optimism, and resiliency of psychological capital has positive impacts on teachers' creative teaching. Among them, the higher self-efficacy results in higher teacher creative teaching, which is in line with Ho (2009), Wu (2011), and Hsu et al. (2008). Additionally, the finding that teachers' higher optimism leads to higher creative teaching has strongly supported Wu and Hsu (2010) that teachers express higher creative teaching once perceiving happier feelings in teaching. Besides, it has been claimed that teachers with higher hope exert higher creative teaching. Therefore, teachers' psychological capital can be considered as the critical factor affecting their creative teaching. Finally, five dimensions of work stress (administrative coordination, work load, personal interaction, student's discipline, and professional knowledge) have been proven to have significant explanatory power on junior and senior higher school physical education teachers' creative teaching, which in turn further supports Weng (2007) that work stress has a significantly negative impact on creation.

Conclusion and Suggestion

Seligman (2003) proposes that positive emotion can expand human wisdom, physical and social resources, open human mind, and increase resiliency as well as creation. When people are happy, they will generate creative thinking, their visions expand wider, and their behaviors tend to turn toward exploration. This premise proves that happy people reach more possibilities to spread out their new ideas, express easier new experience acceptance, and promote the chances of creation. These results have strongly supported the findings achieved in this study that four dimensions of self-efficacy, hope, optimism, and resiliency in psychological capital have positive impacts on teachers' creative teaching as well as work stress has a significantly negative impact on creation. Accordingly, this study proposes the following recommendations:

First, this study encourages teachers to actively participate in seminars and advanced studies to fulfill their



self-efficacy. Hence, schools' board of directors is strongly recommended to provide teachers with a platform to show their professional autonomy and improve their teaching in addition to offer them a platform for presenting their professionalism and capabilities as well as establish more opportunities for teacher to try with their innovative thinking. In other words, school managers should make good use of teachers' resource on campus. For instance, through stimulating cooperative learning to enhance sport professional skill cultivation, schools can effectively promote physical education teachers' teaching efficiency and self-efficacy.

This study shows that two factors of personal interaction and professional knowledge in work stress have negative impacts on teachers' creative teaching. In other words, teachers with higher personal interaction stress and higher professional knowledge stress present lower creative teaching. Therefore, this study suggests that physical education teachers can actively and appropriately participate in leisure activities to relax and reduce work stress. There is a fact that on facing continually reforming environment on new educational policies in Taiwan, teachers unavoidably feel certain degree of stress from teaching. For this reason, in order to avoid inappropriate stress that easily affects teachers' teaching behaviors and performance, it is recommended that schools should establish scheduled seminars related to teachers' stress adjustment and emotional management so as to improve teachers' capabilities of stress adjustment and emotional management, which in turn better equipped them with more efficient teaching quality and better life quality.

On facing the current trend of launching multi-media teaching and e-learning in a wide range of schools, it is recommended that schools should develop a platform for interface design and interactions of creative teaching (e.g., video conference and video teaching), establish reward system for teachers' creative teaching, and hold reinforcement training of creative teaching (e.g., software such as documents, PowerPoint, websites, video records, action loading), and encourage teachers to join creative seminars.

Finally, it is suggested that future studies can carry out follow-up observations on physical education teacher. Additionally, longitudinal studies can be adopted to collect data for sufficient exploration of physical teachers' psychological capital changes. Furthermore, it is suggested that whether psychological capital can simultaneously affect and generate stronger impact on life satisfaction and happiness is an issue worth investigating.

References

- Abbe, A., Tkach, C., & Lyubomirsky, S. (2003). The art of living by dispositional happy people. *Journal of Happiness Studies*, 4, 385-404.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Chang, C. H. (2009). *The relationships among job stress, job satisfaction, self-efficacy, and creativity*. Unpublished Masters Thesis, Providence University, Taiwan, 2009.
- Chang, C. M., Lin, H. Y., Chia, F., & Yang, H. F. (2013). The relationship between psychological contract fulfillment and performance of university physical education teachers in Taiwan: The mediating effect of perceived organizational support. *Life Science Journal*, 10 (3), 1086-1093.
- Chen, S. Y., & Wang, J. D. (2004). A study of teachers' creativity teaching behavior in primary schools. *Journal of Gifted Education*, 4 (1), 29-50.
- Chen, Y. S., & Hu, M. C. (2008). The impact of task motivation and organizational innovative climate on adult education teachers' creative teaching performance: An analysis of hierarchical linear modeling. *Bulletin of Educational Psychology*, 40 (2), 179-198.
- Chiu, H. C. (2005). *A study of physical education leadership and the organizational culture on teachers' creative teaching*. Unpublished Masters Thesis, National Chiayi University, Taiwan.
- Csikszentmihalyi, M. (1996). *Creativity*. New York: Harper Collins.
- Fan, M. H., & Huang, C. C. (2012). The effect of job pressure on physical and mental health among elementary school teachers. *National Kaohsiung University of Applied Sciences Physical Education Journal*, 11, 65-75.
- Gooty, J., Gavin, M., Johnson, P. D., Frazier, M. L., & Snow, D. B. (2009). In the eyes of the beholder: Transformational leadership, positive psychological capital, and performance. *Journal of Leadership & Organizational Studies*, 15 (4), 353-367.
- Harker, L., & Keltner, D. (2001). Expressions of positive emotion in women's college yearbook pictures and their relationship to personality and life outcomes across adulthood. *Journal of Personality and Social Psychology*, 80 (1), 112-124.
- Ho, T. S. (2009). A study of creative teaching behavior of college physical education teachers. *NCYU Journal of Physical Education, Health & Recreation*, 8 (2), 31-41.
- Hsu, C. Y. (1993). A study of the relationship between background factors, locus of control, job situation and job burnout for physical education teachers of junior high schools in Taipei City. *Taipei Physical Education College Center for Exercise & Sports Science*, 2, 227-252.
- Hsu, G. W. (2007). *A study of relationship between work pressure and job satisfaction for teachers in the public & private junior high schools of Taipei City*. Unpublished Masters Thesis, Tamkang University, Taiwan.
- Hsu, L. (2005). *Philosophy of sport and education*. Taipei: Great Scholar publishing Co., LTD.



- Hsu, M. H., Chang, F. C., & Cheng, H. K. (2008). Creative teaching behavior of high school physical educators with their creative personality, self-efficiency and intrinsic motivation. *Journal of Meiho Institute of Technology*, 27 (2), 113-124.
- Keh, N. C., Tsai, T. D., & Huang, C. C. (2008). *Origins and development of teaching game for understanding*. In N. C. Keh, (ed.), *Teaching game for understanding* (pp.3-20). Taipei: Shtabook.
- Lee, L. H. (1994). Stress and coping. *Student Counseling*, 34, 51- 53.
- Liu, H. I. (2008). *Professional capability, task motivation and creative teaching for health and physical education teachers: A case study of elementary school in Yun-Chia Area*. Unpublished Masters Thesis, National Chiayi University, Taiwan.
- Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, 23, 695-706.
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33 (2), 143-160.
- Luthans, F., Avolio, B. J., Walumbwa, F. O., & Li, W. (2005). The psychological capital of Chinese workers: Exploring the relationship with performance. *Management and Organization Review*, 1, 247-269.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital*. Oxford, UK: Oxford University Press.
- Pan, Y. H., & Chou, H. S. (2002). A study on physical education in teaching concerns of the elementary school teachers. *Physical Education Journal*, 33, 211-211.
- Park, A. (2005). How full is that glass, really? *Time*, 165, 3, 54-55.
- Seligman, M. E. P., Snyder, C. R., Lopez, Shane J., (2002). Positive psychology, positive prevention, and positive therapy, *Handbook of positive psychology*, (pp. 3-9). New York, Oxford University Press.
- Seligman, M. E. P. (2003). Foreword: The past and future of positive psychology. In C. L. M. Keyes & J. Haidt (Eds.), *Flourishing: Positive Psychology and the Life Well-Lived*. Washington, DC: American Psychological Association.
- Snyder, C. R. (2002). Hope theory: Rainbow in the mind. *Journal of Psychological Inquiry*, 13, 249-275.
- Sternberg, R. J. & Lubart, T. I. (1995). *Defining the crowd: Cultivating creativity in a culture of conformity*. New York: Oxford University Press.
- Weng, C. L. (2007). *A study of the early childhood teacher of passion, stress and creative teaching*. Unpublished Masters Thesis, National Chengchi University, Taiwan.
- Werner, E. E., & Smith, R. S. (1982). *Vulnerable, but invincible: A longitudinal study of resilient children and youth*. New York: McGraw-Hill.
- Williams, S., Shiaw, W. T. (1999). Mood and organizational citizenship behavior: The effects of positive affect on employee organizational citizenship behavior intentions. *Journal of Psychology*, 133, 656-668.
- Wu, C. P. (2011). Effects of relationship on creating personality, self-efficiency and instinct motivation on creating behavior for elementary school physical education. *Yu Da Academic Journal*, 29, 1-16.
- Wu, C. S. (2002). Creative teaching: Concepts and implementation strategies. *Taiwan Education*, 614, 2-8.
- Wu, C. Y. (2008). *A study of the relationship between job stress and effective teaching for junior high school teachers in Taipei City*. Unpublished Masters Thesis, Tamkang University, Taiwan.
- Wu, T. L. & Hsu, C. Y. (2010). A study of the relationship between teaching happiness and creative teaching of elementary school teachers in Pingtung County. *Bulletin of Research on Elementary Education*, 22, 30-62.

Received: September 15, 2015

Accepted: November 22, 2015

Hsiu-Chin Huang

Assistant Professor, Department of Tourism, Leisure, and Entertainment Management, Tatung Institute of Technology, Chiayi 600, Taiwan.
E-mail: op5166@yahoo.com.tw

Li-Wei Liu

Associate Professor, Department of Leisure Service Management, Chaoyang University of Technology, Taichung 413, Taiwan.
E-mail : ijofsr@gmail.com

Huey-Hong Hsieh

Assistant Professor, Department of Leisure Management, Taiwan Shoufu University, Madou, Tainan 721, Taiwan.
E-mail: nancylin809@gmail.com

Chia-Ming Chang
(Corresponding author)

Professor, Department of Physical Education, Health & Recreation, National Chiayi University, Chiayi 621, Taiwan.
E-mail: gr5166@yahoo.com.tw

