

EXPLORING PRINCIPALS' CREATIVE LEADERSHIP AND THEIR TRAITS IN SCHOOLS OF TAIWAN

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Abstract

This study was mainly designed to explore Taiwanese school principals' creative leadership through their traits. Questionnaires were distributed to 350 principals at various schools in Taiwan, which were composed of elementary, middle, and high schools, and each contained at least 1000 students. The returned valid questionnaires were analyzed quantitatively. The results firstly showed the majority of principals were males, working at elementary schools, at the age of 51 - 60 years old, with master of education degrees and 1 - 5 years experiences of being principal. The principals' creative leadership and their traits then were assessed; the findings implied the current principals' creative leadership was strong, the weak trait for the principals was their independence. Comparing the principals' creative leadership according to their personal factors, the study found no significant difference of principals' creative leadership according to their gender, school level, and age; while educational background and years of being principal resulted in significant differences on principals' creative leadership. Finally, the weak positive relationships between principals' educational background and years of being principal and their creative leadership in schools of Taiwan were determined by this study. Discussion on each finding and conclusions were also provided at the end of study.

Keywords: Creative Leadership, Principals' Creative Traits, Personal Factors, Schools in Taiwan

Introduction

Every few hundred years throughout Western history sharp transformations have occurred. In education as well, every few decades the pendulum of change swings from one side to another because of changes in the world, such as in basic values, world perspectives, the social environment, political structures, the arts, transportation, and information delivery (Drucker, 1995). While the pendulum swings wide in Western education there is a huge shift in Eastern education as well, such as in Taiwan, especially in regards to its education system.

Taiwan education was highly centralized, up until 1964, principals were assigned by separate city or county bureau of education. Until 1998, the principals were selected at the national level based on a written and oral exam. Starting from 1999, an evaluation component was added to the process when the legislature amended the nation's Compulsory Education Law. Besides the exams and training, the principal candidates must be evaluated regularly by the local country or city committee, which includes members from different parties, such as bureau of educational personnel, parents (at least one-fifth of the membership), teachers, education experts, and community representatives (Shouse & Lin, 2010).

Education reform started in 1995 after the Council on Education Reform (CER) was formed in Taiwan, which led to several great changes in the education system, reflecting the strong demands of developing partnership between the local government and the

community, as well as educational reforms in a global perspective. At current time, Taiwan education is experiencing many different changes as mentioned before, administrative change, curricular change, instructional change, teachers' training change (Marzano, Waters & McNulty, 2005). In order to deal with these changes, school principals have to take leadership a certain kind of leadership to capture the energy, ideas, and commitment of teachers (Fullan, 2004).

However, there is not enough research done in this area in Taiwan, and yet it is more and more important to identify good educational leaders from the beginning. After the process of selecting school principals has been changed in Taiwan, it overemphasizes on the knowledge-based performances. There were times that the people who passed the written exam, oral exam and training, but still could not deal with all the situations happening in the school or the society. Therefore, there is a need to investigate creative traits for school principals to assess and train themselves and their team members, implementing in their professional development program (Fullan, 2005).

Research Objectives

This study mainly aimed to identify the Taiwanese school principals' personal factors including their gender, age, school level, educational background; and years of being principal; assess the current principals' creative leadership traits; compare the principals' leadership traits according to their personal

factors; as well as determine the personal effects on principals' leadership traits in the Taiwanese Schools.

Literature Review

There were quite many studies on the leadership, especially about the transformational leadership, authentic leadership, and servant leadership. However, creative leadership is quite a new concept in recent studies (Nevins & Stumpf, 1999).

Creative leadership as stated by Tice (2017), is a kind of leadership philosophy developed on the basis of these theories. Creative leaders develop and consider innovative ideas through the shared vision of improving the effectiveness through organizational formation; they also focus on exploring the desirable futures through innovative strategies. (Stoll & Temperley, 2009)

Those who employ creative leadership in the schools are the creative leaders, who can adjust the educational environment, promote creative thinking, and perform mission-driven entrepreneurship in the schools. Principal with creative leadership could envision desirable futures and unleash the motivation, collaboration and creativity of teachers. Creativity developing, critical thinking, experimenting, vision-leading, collaboration, strategy planning, and risk-taking were crucial for creative leadership principal but required their continuous learning and improvement (Menno, Grant & Valeria, 2017).

Creativity is the ability to solve problems and create knowledge, which also manifests

in the production of previously non-existent information. According to Stoll & Temperley (2009), a creative leader was able to originate and promote innovation, inspiration or insight, they were developed and cultivated after they were able to handle and perform managerial activities in a new way. Sousa (2007) also confirmed that linking the leadership to creativity is of great significance for leaders in different organizations, though this process may take time as it required real life experiences.

In an effort to find a link between the attributes of creativity and leadership in schools, Goertz (2000) conducted a study to determine if school principals who were perceived as school leaders also display creative based on eight variables, which was extending from Amabile's (1998) research. These attributes were regarded as creative traits as the following:

- Passion for work - the ability to mix personal and professional energy and enthusiasm
- Independence - the ability to initiate and sustain autonomous thought and action
- Goal setting - the ability to select a task and complete it
- Originality - the ability to develop new approaches in problem solving
- Flexibility - the ability to adapt to new situations and ideas
- Wide range of interests - interest in a variety of subjects and participation in events
- Intelligence - the ability to acquire and apply knowledge and skills

- Motivation - the need to achieve in all attempted activities and to self-evaluate

Goertz (2000) applied Amabile's questionnaire and an in-depth interview to study four principals who had been deemed highly effective by their supervisors. Goertz (2000) proved that all these creative traits were clearly indicated a kind of the creative leadership style displayed by the principals.

In Taiwan, educational officials mandate less local bureaucracy and more local democracy, principals are pulled in multiple directions, and their schools have become places of uncertainty and incongruity (Shouse & Lin, 2010). With the respect to these Taiwanese principals, the research data reflected by Shouse & Lin (2010) described a picture that principals in Taiwanese school's work in an environment of declining formal authority coupled with increasing responsibilities, expectation, uncertainty, and vulnerability.

Taiwan school-reform legislation has removed a portion of the job security principals once enjoyed, as Ministry of Education: Administrative Plan, Taiwan (2007) also pointed out. A school's poor performance, its failure to satisfy parents' expectations, a principal's inability to implement reform, and even local political pressuring him/her lead to reassignment or even dismissal, which was mentioned in the interviews conducted by Shouse & Lin (2010) in Taiwan, they also appealed to the principal to operate in a precarious setting, to struggle to find the combination of symbol and substance

with respect to reform that will promote their status and stability within the organization.

Research Methodology

This study measured the Taiwanese principal's creative leadership traits based on Amabile's (1998) study. The study adopted the Likert type items of Amabile's (1998) questionnaire, but also adjusted the statement of few items as it would be used in Taiwan school setting.

According to Ministry of Education Statistics, in Taiwan (2011), there was about 1,005 schools in Taiwan, different school categories occupied different percentages, the elementary school was 46% of the population, middle school was 27% and high school was 27%. This study decided to select the big schools, which contained more than 1000 students from each level. As the principals of big schools were all selected through Taiwan MOE's official evaluation system, they were formally trained, assessed and appointed. Meanwhile, since they were managing schools with a big population, they may also face more challenges and competitions, so their leadership and traits deserved more studies for the better understanding of principal leadership, as well as to provide more ideas for innovating the principal training and evaluation system in Taiwan. Based on Krejcie & Morgan's (1970), the final sample size was 350 principals/schools as Table 1 shown. The researcher applied random sampling method, selected 160 from

506 elementary school principals (46% of 350), 350) and 95 from 211 high school principals (27% of 350) for conducting this research.

Table 1 The Sample Size of Principals in This Study

School Level	School Containing more than 1,000 students	Number of Principals from Each Level
Elementary School	506	160
Middle School	288	95
High School	211	95
Total		350

The questionnaires were distributed to 350 Taiwanese school principals through emails and hardcopies in the beginning of year 2018. The final returned and valid questionnaires were 310, which counted for 89% of return rate. The overall reliability of the questionnaire was calculated by using Cronbach's Alpha, which was around .68 as Amabile (1998) reported, and was .76 in the current study. Data from the principals was statistically treated to determine their responses on the questionnaire.

Research Results

1. The Taiwanese schools principals' personal profile including the participants'

gender, age, school level, educational background, and years of being principal.

Table 2 reported that the highest percent falls on the age from 51 to 60 (48.1%), the second highest is in the group of 41 to 50-year-old (40.3%), the lowest one falls on the age from 30 to 40 (1.6%). It also reveals that most of the participants are males (70.6%) and that the majority of the participants hold a master's degree (77.7%). It shows that the highest percent falls on the group with 1 to 5 years of being a principal (33.9%), the second highest is in the group with 6 to 10 years of experience (31.3%), the lowest one falls on the group with 16 years and above (13.9%).

Table 2 The Taiwanese School Principals' Personal Profile (N=310)

Personal factors		Number	Percentage
Gender:	Female	91	29.3
	Male	219	70.7
Age:	30-40 years old	5	1.6
	41-50 years old	125	40.3
	51-60 years old	149	48.1
	61-70 years old	31	10
School Level:	Elementary	149	48
	Middle	83	26.6
	High	78	25.4
Education Background:	B.A.	34	11
	M.Ed.	241	77.7
	Ph.D.	35	11.3
Years:	1-5 years	106	33.9
	6-10 years	97	31.3
	11-15 years	63	20.3
	16 years +	44	13.9

2. The current context of creative leadership traits of school principals in Taiwan

The perception data was determined on principal's eight creative traits by 5-6 short statements. These eight traits contained Flexibility, Passion of Work, Originality, Goal Setting, Wide Range of Interests, Intelligence, Motivation, and Independence. Data was collected through 47 items in which survey described their behaviors using a 5-point rating

scale that range from a 1 (Never) to a 5 (Always).

The means and standard deviations were displayed in Table 3 about their behaviors in performing creative leadership traits. The results showed the strength or weakness of principals' creative leadership traits. Accordingly, their traits of flexibility, goal setting, intelligence, and motivation were strong; their traits of originality, wide range of interests were moderate; and the weak trait was their independence.

Table 3 The Current Creative Leadership of School Principals with The Traits

Creative Leadership Traits	Mean	S.D.	Interpretation
Flexibility	4.05	.86	Strong
Passion of Work	4.32	.69	High
Originality	3.93	.99	Moderate
Goal Setting	4.30	.67	Strong
Wide Range of Interests	3.97	.98	Moderate
Intelligence	4.18	.67	Strong
Motivation	4.23	.78	Strong
Independence	3.49	1.01	Weak
Overall for Creative leadership	4.06	.89	Strong

3. The comparisons of the principals' creative leadership according to their gender, age, school level, educational background; and years of being principal.

Independent samples t-test and one-way ANOVA were used to test the principals' creative leadership according to their gender, age, school

level, educational background; and years of being principal.

The result of t-test was showed in Table 4, which indicated no significant difference of principals' creative leadership according to their gender.

Table 4 The t-Test Comparison on Gender

Gender	t	Mean	S.D.	Sig. (2-tailed)
Male	.320	4.08	.37431	.752
Female		4.03	.08426	

Table 5 presented the one-way ANOVA results of comparing principals' creative leadership as classified by their age and school level. However, no significant differences of

principals' creative leadership according to their age and school level were founded since p-values in this table are both bigger than .05.

Table 5 One-way ANOVA Comparison on Age and School Level

Age	Sum of Squares	Mean Square	F	Sig.
Between Groups	.565	.283	3.198	.067
Within Groups	2.297	.088		
School level	Sum of Squares	Mean Square	F	Sig.
Between Groups	.128	.064	.670	.550
Within Groups	2.734	.105		
Total	2.863			

The one-way ANOVA results from Table 6 indicated significant differences of principals' creative leadership according to their educational background since the significance between groups was .015, which implied at least one pair of mean scores were significantly different. Thus, Post Hoc multiple comparisons of Scheffe test of principals' creative leadership on their educational background were conducted to

find the significant differences from different pairs. As showed, Table 7 proved that principals with Ph.D. performed better creative leadership than those with Master or Bachelor degrees as the mean differences for these pairs were significant, and the Principal with Ph.D. had higher mean scores than those were with Master or Bachelor degrees.

Table 6 One-way ANOVA Comparison on Educational Background

Education background	Sum of Squares	Mean Square	F	Sig.
Between Groups	4.904	2.452	4.927	.015*
Within Groups	13.935	.498		
Total	18.839			

Table 7 Multiple Comparisons of Scheffe Test on Educational Background

(I) eduback	(J) eduback	Mean Difference (I-J)	Std. Error	Sig.
B.A.	M.Ed.	-.489	.382	.451
	Ph.D.	-1.500*	.498	.020
M.Ed.	Ph.D.	-1.010*	.382	.044

*The mean difference is significant at the 0.05 level.

Moreover, the one-way ANOVA results from Table 8, sig .001 indicated significant differences of principals' creative leadership according to years of being principal. The Post Hoc multiple comparisons of Scheffe test on principals' creative leadership from Table 9 proved that principals with 11-15 years, or 16 years up

of experiences performed better creative leadership than those with 1-5 years only, since the mean differences for these pairs were significant, and the Principal with 16 years up and 11-15 years had higher mean scores than those were with less years of being principals.

Table 8 One-way ANOVA Comparison on Years of Being Principal

Years of being principal	Sum of Squares	Mean Square	F	Sig.
Between Groups	8.266	2.755	7.037	.001*
Within Groups	10.572	.392		
Total	18.839			

Table 9 Multiple Comparisons of Scheffe Test on Years of Being Principal

(I) years	(J) years	Mean Difference (I-J)	Std. Error	Sig.
1-5	6-10	-.255	.287	.851
	11-15	-.950*	.296	.032
	16+	-1.450*	.370	.006
6-10	11-15	-.694	.304	.183
	16+	-1.194*	.376	.033
11-15	16+	-.500	.383	.641

*The mean difference is significant at the 0.05 level.

4. The relationships between principals' educational background and years of being principal and their creative leadership in schools of Taiwan.

Since this above finding revealed the significance differences of principals' creative leadership according to their educational background and years of being principal.

This researcher further applied Pearson correlation coefficient to test the relationship between the principals' educational background and years of being principal and their creative leadership in schools of Taiwan. Table 10 showed the significant correlation test results, weak positive relationships between principals' educational background and years of being

principal and their creative leadership in schools of Taiwan were determined as the last finding.

Table 10 Pearson Correlation Coefficient Test Result

Creative leadership	Educational background	Year of being principal
Pearson Correlation	.389*	.451*
Sig. (2-tailed)	.025	.018
N	310	

*Correlation is significant at the 0.05 level (2-tailed).

Discussion

The findings of principals' personal profiles and the effects of educational background as well as the years of being principals on their creative leadership, reflected the reality of principal's selection in Taiwan. Shouse & Lin (2010) once mentioned in their study, in Taiwan the school principals must be responsible for all administering, teaching and learning tasks, many of the principals are promoted and coming from the teaching positions. Ministry of Education: Administrative Plan, Taiwan (2007) had reported the procedure and requirements of being appointed as school principals in Taiwan. Accordingly, applicants were required to have at least four years of teaching experience and at least two years of administrative experience, then they could take a qualification exam for the principalship. Those who passed the exams, are then required to attend a short Ministry training course. No additional academic credentials are required of principals.

Principals were hired at the school level and are typically appointed to four-year terms

(Ministry of Education: Administrative Plan, Taiwan 2007). As seen, there was no detailed requirement for applicant's educational degree, thus, it was not hard to understand why many principals were with Master of education degree and being principals for less than 6 years; and quite limited number of them were with Ph.D. from education leadership or management field. Pan, Nyeu & Cheng (2017) also found that principals in Taiwan performed more indirect than direct leadership behaviors, the reality was that many principals were being instructional experts, more than organizational leaders.

Meanwhile, the current analyses of principals' behaviors in performing creative leadership and traits to some degree also supported the above Pan, Nyeu & Cheng (2017) conclusion. The findings of this part indicated the principals' current creative leadership and their traits performance in general was strong. Their strength was reflected in their traits of flexibility, goal setting, intelligence, and motivation; while their weakness of principals' creative leadership traits was their

independence; their traits of originality, wide range of interests were moderate. Why would principals' independence be weak? Chen (2013) study of Micro-political analysis of the principal selection in a Taiwanese elementary school may help explain the reasons behind. According to Chen (2013), the mechanism of the principal selection in Taiwan is influenced by the educational reform affected by policy, there were always micro-political dynamics of principal selection among the principal candidates. Therefore, the principals in a school were quite difficult to be independence, which may also influence their originality and range of interests, after all, they were quite busy with the administering, teaching and learning tasks in their schools already (Shouse & Lin, 2010).

Moreover, this study could suggest two trends based on the findings of last two objectives. One was principals with Ph.D. performed better creative leadership than those with Master or Bachelor degrees; the other was principals with 11-15 years, or 16 years up of experiences performed better creative leadership than those with 1-5 years only. The positive relationships found between principals' educational background and years of being principal and their creative leadership in fact confirmed these two trends. Earlier, when Sousa (2007) described the linking the leadership to creativity was of great significance for leaders in different organizations, she also mentioned that this process could take time as it required the real-life experiences. Stoll & Temperley (2009) also concluded that a creative leader could

be developed and cultivated after they were able to handle and perform managerial activities in a new way. Recent researchers like Menno, Grant & Valeria (2017) further explained and commented that performing creative leadership required the principals to play many roles and functions in the schools, such as adjusting the educational environment, promoting creative thinking, and practicing mission-driven entrepreneurship. Creativity developing, critical thinking, experimenting, vision-leading, collaboration, strategy planning, and risk-taking were crucial for creative leadership principal but required their continuous learning and improvement (Menno, Grant & Valeria, 2017). All these implied that principal's creative leadership was not born but developed through various school management activities and to be successful creative leader needs to take a long process. Therefore, it was not hard to understand why the principals with higher education degrees and more working experiences may perform better creative leadership in the schools.

Conclusion

The current study identified the majority of principals in Taiwan schools are males, working at elementary school, in the age of 51-60 years old, with master of education degree and 1-5 years of being principal. No significant difference of principals' creative leadership according to their age and school level; while significant differences of principals' creative leadership according to their educational background

and years of being principal were determined. The study revealed that principals with Ph.D. performed better creative leadership than those with Master or Bachelor degrees; also, that principals with 11-15 years, or 16 years up of experiences performed better creative

leadership than those with 1-5 years only. Moreover, weak positive relationships between principals' educational background and years of being principal and their creative leadership in schools of Taiwan were discovered in this study as well.

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