

THE EFFECT OF KINDERGARTEN PRINCIPALS' LEADERSHIP BEHAVIORS ON TEACHER WORK PERFORMANCE

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In this study 732 Taiwanese kindergarten teachers, divided into 4 regional areas: northern, central, southern, and eastern, completed a questionnaire about their work performance and how it is affected by principals' leadership behaviors. Regression and structural equation modeling analysis showed that the use of empathetic concern by kindergarten principals had a positive effect on teachers' work performance. Although assertive orders were found to have a positive influence, the correlation with work performance was lower than that with empathetic concern. Rewards and punishments had no significant effect on improving teachers' work performance. Emotion-based leadership in the form of showing empathetic concern could be used to improve kindergarten teachers' work performance.

Keywords: kindergarten teachers, principals, leadership behaviors, work performance, empathetic concern, assertive orders.

In terms of the administrative management of schools, many kindergarten principals are concerned about their effective leadership of staff who require rewards, authority, and may exhibit emotional reliance (Hadjithoma-Garstka, 2011). It can be difficult to manage teachers effectively in order to enhance their work performance. Currently, early education institutions in many advanced nations are facing an adverse environment created by a low birth rate and a consequent rapidly decreasing number of young children, making it necessary to retain good teachers who attract enrolments in their institution. Thus, in terms of the human resource management and leadership of kindergartens, it is important to choose the optimal leadership behavior that can minimize teachers' dissatisfaction and enhance teachers' work performance.

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Many Taiwanese kindergarten principals and teachers consider the best leadership method to be the use of empathy and care in dealing with people and work issues. Empathetic concern on the part of leaders appeals to the emotions and has been shown in previous studies to enhance teacher work performance (Barbuto, Fritz, Matkin, & Marx, 2007; Emery & Barker, 2007; Pishkin & Wolfgang, 1962). However, in early childhood education institutions, should principals first consider assertive orders or the administration of rewards and punishments? Assertive orders appeal to people's need for authority and require teachers to submit to that authority in carrying out supervision and management (Barbuto et al., 2007). Rewards and punishments are used to encourage diligent teachers and reprimand teachers who do not perform well (Stewart, 1996). In the context of an aging society, early childhood education institutions have intense competition and, therefore, there is a need to research and understand the most effective leadership behavior for these institutions.

My purpose in this study was to explore how the behaviors of kindergarten principals – empathetic concern, assertive orders, and the administration of rewards and punishments – influence the work performance of kindergarten teachers. These behaviors were then evaluated to determine which has the greatest influence on teachers' work performance, thus contributing to the research on leadership behavior and work performance.

Literature Review

Correlation Between Assertive Orders and Work Performance

Some people believe that the use of assertive orders should not exist in modern organizations (McBride, 2001). Private kindergarten principals in Taiwan frequently use this behavior to manage their teachers. In this study I searched for recent full-text journal articles and theses published in Taiwan, and found only a study by Chen (2010) which was focused on the behavior of assertive orders by elementary school principals in remote areas. Chen (2010) found that principals can positively influence teacher work performance through the use of assertive orders. No related literature was discovered among the theses on kindergartens. I therefore decided that this topic was worthy of exploration and, based on the above literature, proposed the following hypothesis:

Hypothesis 1: When kindergarten teachers perceive a high degree of assertive orders from the principal, they will generate a high standard of work performance.

Correlation Between Empathetic Concern and Work Performance

Cheng, Chou, Huang, Fan, and Peng (2003) pointed out that there is a significant paternal orientation to leadership behavior in Taiwan. This paternal leadership style often involves care and empathy, which can elicit the inter-

nalization of identity and sacrificial submission by subordinates (Cheng et al., 2003). Pishkin and Wolfgang (1962) indicated that there is a high correlation between emotional input and work performance. Researchers have shown that if organizational commitment is an indicator of work performance, an individual's emotional involvement and organizational commitment will also be positively correlated (Emery & Barker, 2007). This indicates that empathetic concern is a type of emotional involvement and that organizational commitment is positively correlated to work performance, providing evidence of the correlation between empathetic concern and work performance. In other studies it has been shown that principals' use of empathetic concern toward teachers can promote teacher work performance (Chen & Cheng, 2009).

Based on the above literature, I proposed the following hypothesis:

Hypothesis 2: When kindergarten teachers perceive a high degree of empathetic concern from the principal, they will have a high standard of work performance.

Correlation Between the Administration of Rewards and Punishments and Work Performance

Previous researchers have shown that when leaders show fair treatment and have clear rewards and punishments, their subordinates show improved work performance (Bing & Burroughs, 2001; Chen, 2005). These studies have been focused on problems such as the equitable distribution of work and salary income of individuals. Several researchers have found that equitable distribution has predictive power for employee work performance (Greenberg, 1990; Pfeffer & Davis-Blake, 1992).

An equitable distribution problem commonly occurring in school organizations is related to reward distributions. For instance, Cheng (2004), in a study of reward fairness, found that the equitable distribution of rewards in schools will affect teacher performance in organizational citizenship behavior, such as job autonomy, civic virtue, and altruism (Lv, Shen, Cao, Su, & Chen, 2012), which are types of work performance. Thus, fair rewards and punishments are positively correlated to teachers' work performance. Peng (2002) interviewed professional managers in Taiwan, and found that clear rewards and punishments can help with personnel retention. This indicated that the administration of rewards and punishments can help personnel to believe that there is hope for a workplace without hypocrisy. Therefore, if employees perceive fair treatment, it will affect their work performance (Sharma, Borna, & Steans, 2009).

Many Western researchers have focused on the effect of rewards on employee work performance, but they have paid less attention to the effect of punishments. For instance, Stewart (1996) conducted a study with sales representatives and found that after management provided rewards the work performance of the sales representatives was enhanced significantly. Schul, Remington, and Berl (1990)

examined the effect of contingent punishments on work performance; however, no significant influence was found. Ashton and Cook (1989) have suggested that managers should use rewards rather than punishments; however, in a number of corporations in Taiwan, managers believe that both clear rewards and punishments are needed to achieve worker efficiency (Chen, 2005). This is the major difference between Western and Taiwanese research on work performance.

Based on the above literature (Chen, 2005; Sharma, Borna, & Steans, 2009), I proposed the following hypothesis:

Hypothesis 3: When kindergarten teachers perceive a high degree of principal's administration of rewards and punishments, they will have a high standard of work performance.

Method

As shown in Figure 1, in this study I primarily explored the perception of private kindergarten teachers in Taiwan regarding the principals' empathetic concern, assertive orders, and administration of rewards and punishments, as well as the correlation of these perceptions with standard of work performance, in order to determine which leadership behaviors could best predict teacher work performance. Education, age, and teaching experience were used as control variables, in order to remove their influence during the examination of the effects of the three leadership behavior types on teachers' standard of work performance.

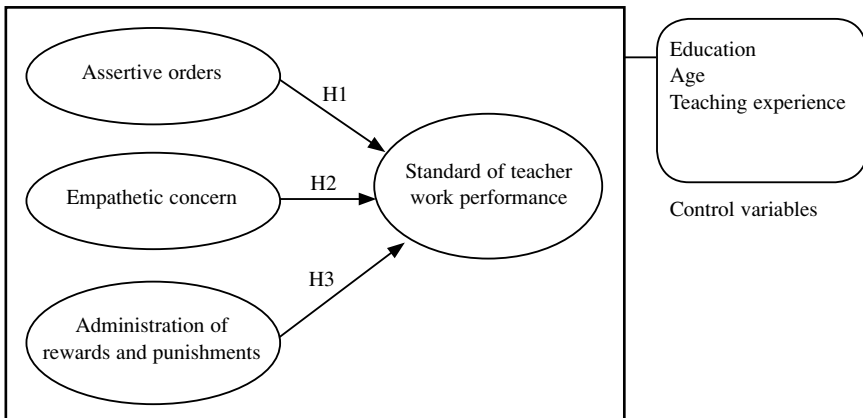


Figure 1. *Research Framework.*

Participants

The participants in this study were a part of the nationwide database of kindergarten teachers in Taiwan. Based on the statistics from 2006, there were 6,324 teachers in public kindergartens and 12,713 teachers in private kindergartens, for a total of 18,900 teachers (Ministry of Education, Department of Statistics, 2007). The Department of Statistics aimed to include 10% of the population as the sample, or a total of 1,500 teachers. Stratified cluster random sampling was used to stratify the area into the four regions of northern, central, southern, and eastern Taiwan, and the ratio of public:private kindergarten teachers was used to determine the numbers to extract. The school names were written on paper lots, which were divided into eight piles titled northern public, northern private, central public, central private, southern public, southern private, eastern public, and eastern private. The ratios for each pile (15%, 25%, 6%, 17%, 10%, 24%, 2%, and 1%, respectively) were used to extract 225, 375, 90, 255, 150, 360, 30, and 15 teachers, respectively. After a kindergarten was drawn from each pile, the principal or director of that school was contacted to obtain consent, and the number of teachers was counted. This method was used to continue drawing lots and making contact until the sample number in each pile had reached the target.

The survey was administered between March and May of 2007, and 1,500 questionnaires were mailed out. After repeated solicitation and the sending of additional questionnaires, 1,083 responses were gathered, for a return rate of 72.2%. After removing the invalid papers, there were 1,058, comprising 326 from public kindergarten teachers and 732 from private kindergarten teachers. It has been shown that public kindergartens are affiliated with elementary schools and therefore kindergarten principals have no real authority and seldom use assertive orders. It was less meaningful to analyze the effect of assertive orders of public kindergarten principals on teachers; therefore, I focused on private kindergarten teachers and did not analyze the data collected from public kindergarten teachers.

Measures and Procedure

I compiled the Principals' Leadership Behavior and Teachers' Work Performance Questionnaire for use in this study. The survey content included the demographic variables of the teachers, the teachers' perceptions of work performance, and the teachers' perceptions of the principals' leadership. The demographic variables included gender, age, years of experience, level of education, and type of kindergarten (public or private). In Taiwan, 98.9% of kindergarten teachers are female (Ministry of Education, Department of Statistics, 2007); therefore, I did not analyze gender differences. In terms of the teachers' perceptions of work performance, the questions were modified from the research questionnaire by Tsui, Pearce, Porter, and Tripoli (1997). The measurement was based on a 5-point scale, with scores ranging from 1 = *do not conform at all* to 5

= *highly conform*. A high score represented a high standard of work performance. Factor analysis showed that the factor loading of each question was 0.846-0.893, which could explain 75.69% of the variance. The Cronbach's α value was .92, showing good reliability and validity. The survey and the factor analysis results are shown in Table 1.

Table 1. *Factor Analysis of Standard of Teacher Work Performance*

Question	Work performance	Commonality
E1. I think that I have a diligent work attitude and outstanding performance	.875	.766
E2. Parents are satisfied with my work performance	.893	.797
E3. Students like my instruction very much	.853	.728
E4. The kindergarten principal is satisfied with my work performance	.883	.779
E5. I contribute a lot to the kindergarten	.846	.715
Eigenvalue λ	3.784	--
Ratio of total variance	75.689	--
Accumulated ratios	75.689	--
Reliability	.92	--

The questionnaires developed by Barbuto et al. (2007), Cheng (2008), and Chen and Cheng (2009) were modified to measure the teachers' perceptions of the principals' empathetic concern, assertive orders, and administration of rewards and punishments. The measurement was based on a 5-point scale, with scores ranging from 1 = *do not conform at all* to 5 = *highly conform*. A high score represented a high perception of the principals demonstrating such leadership behaviors. Factor analysis obtained three factors: Assertive orders explained 39.67% of the variance, and the reliability α value was .87; empathetic concern explained 28.00% of the variance, and the reliability α value was .89; and the administration of rewards and punishments explained 12.71% of the variance, and the reliability α value was .85. In sum, the leadership behaviors of the principals explained a total of 80.38% of the variance. The survey and factor analysis results are shown in Table 2.

Data Analysis

Data analysis was conducted using SPSS version 12.0 for regression analysis of the effect of the principals' leadership behaviors on teachers' work performance. At the same time, the fit of the correlation models between variables was analyzed using LISREL for structural equation modeling (SEM) analysis, in order to test whether the comparative fit index (CFI), incremental fit index (IFI), and goodness of fit index (GFI) values were all greater than .90, and whether the root mean square error of approximation (RMSEA) value was lower than 0.08.

Table 2. Factor Analysis of Principals' Leadership Behavior

Question	Assertive orders	Empathetic concern	Administration of rewards and punishments	Commonality
E13. Working with or being in a meeting with the kindergarten principal makes the teacher feel stressed	.917	-.007	.012	.790
E12. The kindergarten principal will show an authoritarian image in front of the teacher	.906	.076	.043	.832
E14. When violating the principles of the kindergarten principal, the teacher will be reprimanded	.838	-.035	-.082	.766
E18. When the teacher makes mistakes, the kindergarten principal will offer chances for correction	.017	.940	.018	.795
E19. The kindergarten principal will give the teacher time to learn new techniques and cope with changes in the environment	.053	.888	-.017	.875
E16. When the teacher has an emergency, the kindergarten principal will provide assistance	-.029	.882	-.030	.797
E25. The kindergarten principal will promise to give outstanding teachers a certain level of bonus money	-.050	.030	-.928	.793
E24. The kindergarten principal uses occupational advancement to attract the teacher and encourage the teacher to be devoted to their work	-.078	.116	-.882	.841
E26. The kindergarten principal actively supervises teacher performance, and immediately punishes teachers if they make mistakes	.232	-.142	-.762	.745
Eigenvalue λ	3.57	2.52	1.14	--
Ratio of total variance	39.67	28.00	12.71	--
Accumulated ratios	39.67	67.67	80.38	--
Reliability	.87	.89	.85	--

Results and Discussion

During data analysis, age, teaching experience, and level of education were entered as control variables. The results showed that the leadership behavior with the greatest effect on teacher work performance was empathetic concern ($\beta = 0.41, p < .05$), followed by assertive orders ($\beta = 0.14, p < .05$); however, administration of rewards and punishments had no significant effect on teacher work performance (see Table 3).

Table 3. *Regression Analysis Results*

Work performance	B	β
Leadership behavior		
Empathetic concern	.588	.41*
Assertive orders	.157	.14*
Administration of rewards and punishments	.08	.07
Own education (control variable)	.132	.08
Current teaching experience (control variable)	.051	.11
Birth year (control variable)	-.06	-.17
Constant	10.72	--
<i>N</i>	732	--
<i>R</i> ²	.31	--
<i>F</i>	45.31*	--

Note. * $p < .05$.

Table 4. *Fit Indices of the Final Model for Principal Leadership Behavior and Teacher Work Performance*

Indicator name	Test results	Determined value
Chi square values	396.89	$p > .05$
<i>df</i>	71	
GFI	.93	> .90
AGFI	.89	> .90
IFI	.96	> .90
NFI	.96	> .90
NNFI	.95	> .90
CFI	.96	> .90
RMSEA	.079	$\leq .08$

SEM was conducted to test the fit of the correlational model between the research variables. It was found that the correlation coefficient of the principals' empathetic concern and teacher work performance was $\lambda = 0.47$ ($t > 1.96$), and that of assertive orders was $\lambda = 0.15$ ($t > 1.96$). The administration of rewards and punishments did not have a significant influence on teachers' work performance.

The CFI (.96), IFI (0.96), and GFI (.93) values were all greater than .90. The RMSEA value of 0.079 was less than 0.08. Therefore, the model fit was within an acceptable range (see Figure 2 and Table 4 for details). Thus, Hypotheses 1 and 2 were supported but Hypothesis 3 was not.

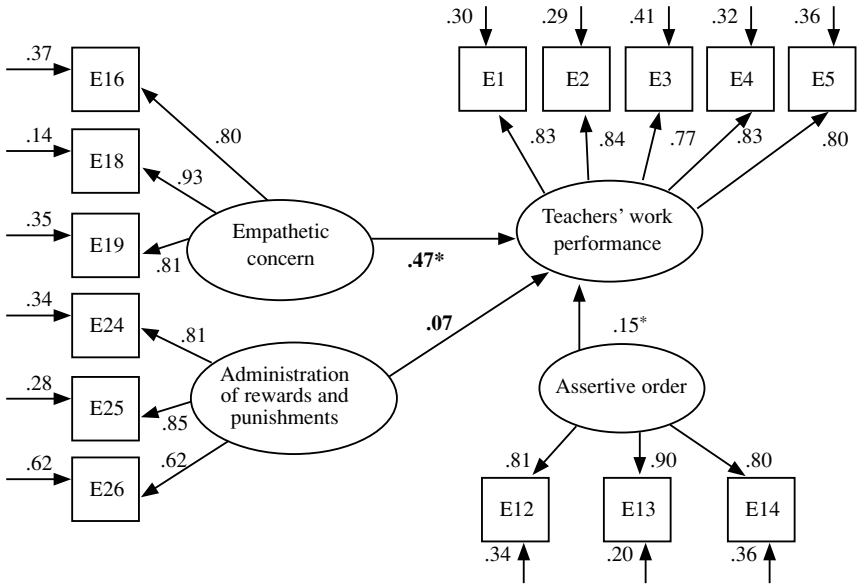


Figure 2. Influences on Teacher Work Performance.

Note. * $t > 1.96$, $\chi^2 = 396.89$, $df = 71$, RMSEA = .079, GFI = .93, CFI = .96, IFI = .96, NNFI = .95, NFI = .96.

Consequently, it was found that the use of empathetic concern by kindergarten principals was the best way to promote teacher work performance, whereas the administration of rewards and punishments had no significant effect on teacher work performance. Although the use of assertive orders showed a significant positive effect in the statistical data analysis, the effect coefficient was not high. This differs from the finding of Chen (2005) that rewards and punishments could have a significant effect on work performance. Similarly, Stewart (1996) found a significant relationship between rewards and punishments and work performance; however, contingent punishment had no significant influence on work performance in the study by Schul, Remington, and Berl (1990). The concurrent use of rewards and punishments may cancel each other out. Rewards promote work performance, but teachers may not respond well to punishments

from their principals (Ashton & Cook, 1989). Chen (2010) indicated that the assertive orders of principals in remote elementary schools can effectively improve the work performance of teachers. In this study I also found that assertive orders affected the work performance of kindergarten teachers, but the correlation was not high. This indicated that the use of assertive orders should be less favored in principals' choice of leadership. My finding regarding the effect of empathetic concern on staff turnover is consistent with that of Chen and Cheng (2009), who indicated that the behavior of empathetic concern not only lowers turnover rates, but can also enhance teacher work performance. In sum, in the relationship between kindergarten leadership behavior and teacher work performance, I found that the use of empathetic concern was the most effective leadership behavior of the three studied. Some practical situations where the behavior of empathetic concern may be implemented are: when teachers make mistakes and the kindergarten principal can give them a chance to correct their mistakes; when the kindergarten principal gives teachers time to learn new techniques to cope with changing environments; and when the kindergarten principal provides assistance to teachers experiencing emergencies. My findings in this study further support the correlation between empathetic concern and work performance found by Emery and Barker (2007).

These results indicate that kindergarten teachers identified most strongly with the leadership behavior of empathy and care. This reflects the findings of previous researchers with regard to the paternal orientation of Taiwanese leadership (Cheng et al., 2003), and indicates that it is therefore necessary to have family-like empathy and care in the kindergarten working environment. Principals who reward and punish teachers may have a negative impact on their work performance and may cause opposition and conflict, which have detrimental effects on teacher work performance. However, assertive orders can also produce a slight improvement in teacher work performance.

Kindergarten teachers have the responsibility for children's well-being and education on a daily basis, and may feel a deep sense of guilt if they cannot teach well. For such reasons, teachers bear a large amount of pressure so they need to experience some concern from their leaders. When principals show empathetic concern to the teachers, they are more likely to be accepted by the teachers, which, in turn, improves teachers' performance.

I had expected before undertaking this research that teachers would expect and support the administration of rewards and punishments by principals. However, the research results show that this particular leadership behavior did not have a significant influence. Principals should take care not to focus too stringently on rewards and punishments, because they may have no real benefit. The results in this study may be of use to scholars interested in leadership and efficacy in schools.

This was an exploratory preliminary study, and in future studies researchers could broaden the research model by incorporating more variables or by exploring the causal mechanisms that affect various leadership behaviors, in order to deepen the research content and knowledge.

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