

RELATIONSHIP BETWEEN CREATIVE LEADERSHIP AND TEACHER TEAMWORK COLLABORATION IN YANTAI NO. 2 HIGH SCHOOL UNDER SHANDONG PROVINCE

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Abstract

The objectives of this research were: (1) to study the level of creative leadership at Yantai No. 2 High School under Shandong Province. (2) to study the level of teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province.; and (3) to study the relationship between creative leadership and teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province.

The research methodology was survey research. The population consisted of 639 teachers in Yantai No. 2 High School under ShanDong Province, the People's Republic of China. The sample consisted of 346 teachers. The sample size was determined by Krejcie and Morgan's Table and obtained by simple random sampling technique. The instrument used for data collection was a five-point rating scale questionnaire. The statistics used for data analysis were frequency, percentage, mean, Standard Deviation, t-test and content analysis

Major findings: (1) Creative leadership at Yantai No. 2 High School under Shandong Province, overall and in each aspect was at a high level (2) teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province, overall and in each aspect was at a high level (3) the relationship between creative leadership and teacher teamwork collaboration in YanTai NO. 2 high school under ShanDong Province, overall, and in each aspect had a moderate positive correlation at the statistical significance of the .01 level.

Keywords: Shandong Province, Creative leadership, Teacher teamwork collaboration, Yantai No. 2 High School under Shandong Province.

Introduction

This study aims to explore the relationship between creative leadership and teacher collaboration at Yantai No. 2 High School in Shandong Province, emphasizing their importance in improving educational quality and driving educational reform. In today's rapidly evolving educational environment, creative leadership goes beyond management to inspire innovation, promote teacher collaboration, and enhance organizational capacity. The study argues that creative leadership motivates teacher teams to unlock their potential, driving continuous innovation in educational models, while teacher collaboration leverages collective intelligence and resource sharing to improve teaching quality and ultimately enhance student performance.

Yantai No. 2 High School, as a key school, focuses on teacher professional development and teamwork, creating an environment that supports innovation and collective effort. Through regular teacher training, teaching seminars, and collaborative lesson planning, the school not only promotes collaboration among teachers but also improves its overall educational quality and internationalization. The findings of this study will provide theoretical guidance and practical strategies for school administrators, helping to implement teacher collaboration and further promote educational reform and development.

Research Objectives

1. To study the level of creative leadership at Yantai No. 2 High School under Shandong Province.
2. To study the level of teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province.
3. To study the relationship between creative leadership and teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province.

Conceptual Framework

In this research, the research on creative leadership used of Dubrin (2014). For teacher teamwork collaboration used of Robbin and Judge (2007). Define a conceptual framework for the Creative Leadership and Teacher Teamwork Collaboration in Yantai No. 2 High School under ShanDong Province, as shown in Figure 1:

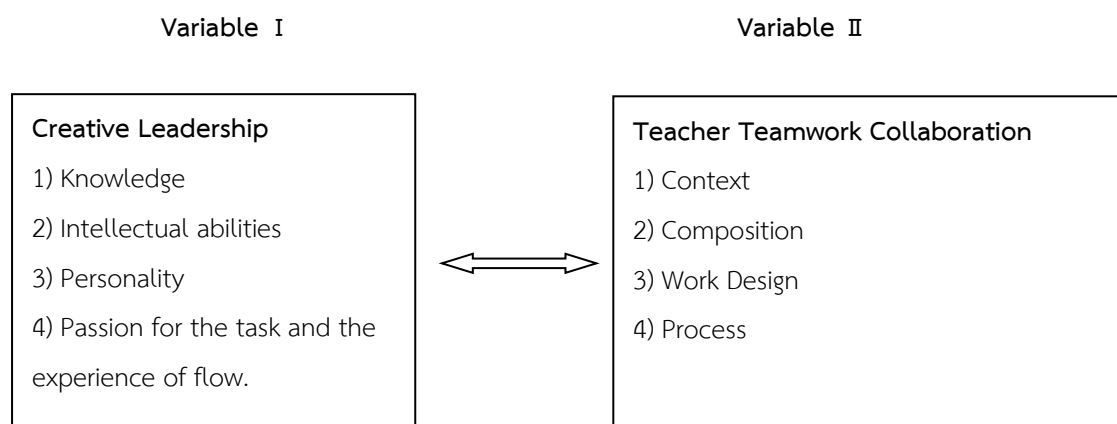


Figure 1 Conceptual Framework

Methods of conducting research

Population: The subjects of the study are teachers 639 teachers from Yantai No. 2 High School under Shandong Province.

Sample: The teachers was 346 teachers from Yantai No. 2 High School under Shandong Province , which was determined by Krejci and Morgan's table (1970), and was obtained by simple random sampling.

Research instruments

The instrument used in this study is the questionnaire, which is divided into the following 3 parts:

Part 1: Questionnaire about the general information about respondent.

Part 2: Questionnaire on Creative leadership. It includes four aspect:1) Knowledge 2) Intellectual abilities 3) Personality and 4) Passion for the task and the experience of flow.

Part 3: Questionnaire on Teamwork collaboration. It includes four aspect:
1) Context 2) Composition 3) Work Design and 4) Process.

Data analysis

This research title was Relationship Between Creative Leadership and Teacher Teamwork Collaboration in YanTai NO. 2 High School under ShanDong Province. The objectives: (1) To study the level of creative leadership at Yantai No. 2 High School under Shandong Province. (2) To study the level of teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province. (3) To study the relationship between creative leadership and teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province.

The analysis result of the data presented by the investigator is presented in the following order:

1. Symbols used in research
2. The process of presenting the results of the data analysis
3. Data analysis results

Data analysis results

Table 1 was found that the level of Creative Leadership of Administrators at Yantai No. 2 High School under Shan Dong Province had the respondents had a bachelor's degree 222 people representing 64.20%, and 192 people have less than 10 years of work experience, representing 55.5%.

Table 2 was found that the creative leadership at Yantai No. 2 High School under Shandong Province: overall and in each aspect at a high level ($\bar{X} = 3.99$). Considering and in each aspect, it was found that all aspects were at a high level. Personality had the highest mean ($\bar{X} = 4.00$), followed by Knowledge and Intellectual abilities ($\bar{X} = 3.99$), and Passion for the task and the experience of flow had the lowest mean ($\bar{X} = 3.98$).

Table 3: was found that the teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province: overall and in each aspect at a highest level ($\bar{X} = 4.00$). Context and Process had the highest mean ($\bar{X} = 4.02$), followed by Composition ($\bar{X} = 4.00$), and Work Design had the lowest mean ($\bar{X} = 3.97$).

Table 1 General information of the respondents:

(n=346)

	frequency	percentage
1. Educational Level		
1.1 Bachelor's degree	222	64.2
1.2 Higher than Bachelor's degree	124	35.8
Total	346	100
2. Work experience		
2.1 < 10 years	192	55.5
2.2 ≥10 years	154	44.5
Total	346	100

Table 2: Show the Mean, Standard Deviation, and level of the creative leadership at Yantai No. 2 High School under Shandong Province, overall and in each aspect.

(n=346)

Creative Leadership of Administrators	\bar{X}	S.D.	Level
1. Knowledge	3.99	1.042	high
2. Intellectual abilities	3.99	1.043	high
3. Personality	4.00	1.040	highest
4. Passion for the task and the experience of flow	3.98	1.050	high
total	3.99	1.044	high

Table 3: Show the Mean, Standard Deviation, and level of the teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province, overall and in each aspect.

(n=346)

Teacher Teamwork Collaboration of Administrators	\bar{X}	S.D.	Level
1. Context	4.02	1.034	highest
2. Composition	4.00	1.031	highest
3. Work Design	3.97	1.047	high
4. Process	4.02	1.038	highest
total	4.00	1.038	highest

Table 4: found that Creative Leadership of Administrators (X) and Teacher Teamwork Collaboration of Administrators (Y) of Yantai No. 2 High School under Shan Dong Province, in high correlation, overall was a high positive correlation statistical significance of the 0.01level. ($r=.929^{**}$)

Table 4: relationship between Creative Leadership and Teacher Teamwork Collaboration in Yantai No. 2 High School under Shan Dong Province, overall and in each expect. (n=205)

Variable	Knowledge (X_1)	Intellectual abilities (X_2)	Personality (X_3)	Passion for the task and the experience of flow(X_4)	Creative Leadership of Administrators (X)
1. Context (Y_1)	.800**	.774**	.775**	.785**	.857**
2. Composition (Y_2)	.774**	.778**	.783**	.804**	.859**
3. Work Design (Y_3)	.776**	.759**	.757**	.757**	.833**
4. Process (Y_4)	.773**	.760**	.772**	.756**	.837**
5. Teacher Teamwork Collaboration of Administrators(Y)	.857**	.843**	.847**	.851**	.929**

Discussion

According to the research objectives, the discussion will be presented as follows: Since the mean value of the statistical data in this study is 4.1, according to the set reference standard (Best, 1997), its range is 3.50-4.49. The overall situation of Relationship Between Creative Leadership and Teacher Teamwork Collaboration in Yantai No. 2 High School under Shan Dong Province is high. Creative Leadership is positively correlated with Teacher Teamwork Collaboration, given that within each item, overall is higher. This is consistent with the research results of Dubrin (2014).

(1) In investigating the level of Knowledge in the creative leadership at Yantai No. 2 High School under Shandong Province, it was found that the administrators' knowledge level is at a high level. Because the administrators possess extensive knowledge of educational management, are familiar with theories of creative leadership, and can apply these theories effectively in school management. They continuously enhance their knowledge through learning and encourage teachers to implement creative teaching methods. This is consistent with the research view of Peter Senge (1990): emphasizing that knowledge is constructed through collective learning and shared experiences, and leaders should promote continuous learning and knowledge-sharing to drive organizational innovation and

development. He advocates that leaders should act as facilitators of learning organizations, promoting the flow and application of knowledge.

(2) In investigating the level of Intellectual Abilities in the creative leadership at Yantai No. 2 High School under Shandong Province, it was found that the administrators' intellectual abilities are at a high level. Because the administrators are skilled in analyzing and solving complex educational problems, develop forward-looking strategic plans, and adapt to changes in the educational environment. They integrate different sources of information to make decisions and use innovative approaches to solve school management challenges. This is consistent with the research view of Robert J. Sternberg (2003): emphasizing that successful leaders must balance analytical, creative, and practical intelligence to navigate complex environments and drive innovation. He advocates that leaders should develop and nurture all three forms of intelligence to create an environment where creativity can flourish.

(3) In investigating the level of Personality in the creative leadership at Yantai No. 2 High School under Shandong Province, it was found that the administrators' personality traits are at a high level. Because the administrators have strong communication skills, motivate team members to reach their full potential, and remain calm and rational under pressure. They are willing to take on new challenges and risks and show respect and understanding towards teachers and students. This is consistent with the research view of Jim Collins (2001): emphasizing that great leaders are defined by their ability to inspire collective intelligence and potential within the team. He advocates that leaders should create conditions where each team member can maximize their contributions to collective success.

(4) In investigating the level of Passion for the Task and the Experience of Flow in the creative leadership at Yantai No. 2 High School under Shandong Province, it was found that the administrators' passion and flow experience are at a high level. Because the administrators are passionate about educational management, demonstrate high levels of focus and commitment to tasks, and inspire team members to be fully engaged in their work. They show continuous creativity in their work and enjoy immersing themselves in the challenges of management. This is consistent with the research view of Teresa Amabile (1983): emphasizing that intrinsic motivation is a core driver of creativity, and leaders should foster passion by providing autonomy, challenge, and meaningful feedback. She advocates that leaders should create a supportive environment where team members can find enjoyment in their tasks and experience flow.

(5) In investigating the level of Context in the teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province, it was found that the contextual factors are at a high level. Because the school provides a supportive environment for teacher teamwork, encourages collaboration among teachers, and promotes communication among teacher teams. The administrator provides necessary resources and support for teamwork and encourages interdisciplinary collaboration. This is consistent with the research view of Richard DuFour (2004): emphasizing that schools must build a culture where teachers establish close collaborative relationships, share teaching experiences, and

collectively solve problems. He advocates that educational leaders should create supportive environments to foster teacher collaboration and improve educational quality.

(6) In investigating the level of Composition in the teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province, it was found that the team composition is at a high level. Because the administrator organizes teacher teams effectively, ensures that teams consist of members with diverse backgrounds and experiences, and maximizes the strengths of individual team members. Team members are willing to share knowledge and experiences with each other, fostering innovation and collaboration. This is consistent with the research view of Etienne Wenger (1998): emphasizing that team members promote innovation by sharing knowledge and experiences. He advocates that team members should construct new knowledge through interaction and collaboration, driving the continuous development of the team.

(7) In investigating the level of Work Design in the teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province, it was found that the work design is at a high level. Because the administrator sets clear work goals for teacher teams, ensures a fair distribution of workload, and encourages team members to collaborate in problem-solving. Teacher teams have sufficient autonomy in their work, and teamwork contributes to the professional development of teachers. This is consistent with the research view of David and Roger Johnson (1989): emphasizing that work design should promote teamwork through clear goals and task allocation. They advocate that teams should improve collaboration efficiency through positive interaction and feedback, achieving common goals.

(8) In investigating the level of Process in the teacher teamwork collaboration at Yantai No. 2 High School under Shandong Province, it was found that the teamwork process is at a high level. Because team members communicate effectively with each other, the administrator regularly reviews and adjusts teamwork strategies, and effectively handles conflicts within the team. Teamwork improves teachers' work efficiency, and team members are willing to maintain long-term collaboration. This is consistent with the research view of John Hattie (2009): emphasizing that teacher collaboration is a key factor in improving student learning outcomes. He advocates that teachers should improve teaching methods through shared practices, collective reflection, and feedback, thereby enhancing student learning outcomes.

The relationship between creative leadership and teacher teamwork collaboration in Yantai No. 2 High school under Shan Dong Province, there was a very distinct positive correlation ($r=0.929^{**}$), with a statistical significance of .01, in descending order of correlation as follows: 1) Knowledge; 2) Passion for the task and the experience of flow; 3) Personality; 4) Intellectual abilities. Because when considering each pair, the relationship between managers' creative leadership and teacher teamwork collaborations is positively correlated at a high level ($r=0.847^{**}$ - 0.857^{**}). Knowledge has the highest correlation ($r=0.857^{**}$), and Intellectual abilities has the lowest correlation ($r=0.843^{**}$). The correlation was significant at the 0.01 level (2 tails). However, when considering managers' creative leadership and teacher teamwork collaboration expectations, it is found that Knowledge and Personality are significantly

positively correlated with Vision delivery, while other expectations are significantly positively correlated. Positive correlation. This is consistent with the findings of Dubrin (2014).

Recommendations of research

(1) Enhance Administrator Training in Creative Leadership: Schools should provide targeted training for administrators in areas like knowledge, intellectual abilities, and personality traits. By offering training courses, workshops, and international educational leadership programs, administrators can better apply creative leadership to foster innovation. Schools should also establish internal learning platforms for administrators to share experiences and regularly assess their leadership skills for continuous improvement.

(2) Promote Teacher Team Diversity: Schools should focus on forming diverse teacher teams with complementary backgrounds, experiences, and skills. This diversity promotes collaboration and innovation. Organizing interdisciplinary seminars and team-building activities will enhance creativity, trust, and collaboration among teachers.

(3) Clarify Work Goals and Task Assignments: Schools should set clear goals and task divisions for teacher teams while allowing autonomy in their work. Providing necessary resources like time, funding, and technological tools will support effective teamwork. Additionally, offering flexible work arrangements can accommodate teachers' diverse needs.

(4) Establish Effective Communication and Feedback Mechanisms: Schools should implement regular team meetings and feedback sessions to ensure transparency and problem-solving. Anonymous feedback systems and online collaboration platforms will further enhance communication and efficiency within teams.

(5) Provide Resources and Support for Teacher Teams: Schools should allocate sufficient resources, such as funding, time, and technological tools, to support teacher collaboration. Establishing dedicated funds, introducing advanced technology, and creating resource libraries with successful case studies can help teams work more effectively, ultimately improving educational quality and student outcomes.

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