

The Research of Principal Leadership and Education Policy Practice for Teacher Professional Development

Juei-Hsin Wang

Graduate Institute of Educational Administration and Policy Development, National Chiayi University, Chiayi, Taiwan
Email: gloriawang2004@mail.ncyu.edu.tw

Yen-Ting Chen

Department of Mathematics Education, National Taichung University, Taichung, Taiwan
Email: ytchen@mail.ntcu.edu.tw

Abstract—this study discussed the principal leadership and education policy practice in the three characteristic elementary schools. These schools are facing to transform development. This research not only discusses the principal leadership but also analyzes the policy implementation. These policy means “teacher evaluation for profession development” and “teacher professional learning community”. The researchers took quality research analysis to reach the goal in this study.

Index Terms—principal leadership, education policy, characteristic elementary school, teacher evaluation for professional development, teacher professional learning community, education implementation

I. INTRODUCTION

The current state of the domestic field of education practice, the Ministry of Education to promote green schools, seed schools, specialty schools active space programs, arts roots programs, quality mentors program, international education, teacher evaluation for professional development, teacher professional learning community and establish principal leadership Excellence Award, School Teaching Excellence Award.

In particular, the Ministry of Education (2011) [1] pointed out the key policy goals that promoting the sustainable development of the campus environment and the implementation of education and sustainable core values. They include the transformation of schools into a carbon reduction of green campus, and the establishment of expert coaching team, investigation and analysis potential electricity savings of schools at all levels, creating schools into community centers for lifelong learning and sustainable development education.

On April 1995, Ministry of Education has subsidized “teacher evaluation for professional development implementation project” to encourage schools and volunteer teachers to participate toward the professionalism of teachers, teaching quality and student

learning outcomes in Taiwan. “Teacher evaluation for professional development” project was from the pilot project becoming a regular program. Due to this project goal connecting school culture and teacher professional development, it needs to pass from official meeting before being submitted for review by the Conference school project execution. Therefore, in practice the policy process, this study is based on teacher evaluation for professional development project as policy direction of observation, understanding of school principals in the policy and administrative practice as a team leader. Therefore, this study is based on the Teacher' Evaluation for Professional Development and professional learning community as the focus of today's research policy practice.

In summary, this study was conducted research and policy leadership from the principal field of vision into practice explored three cases with school curriculum towards the microscopic characteristics of the process in the transformation process. The researchers conducted the first phase of case interviews and focus groups, in order to understand the characteristics of the three schools to become the background and process quality. Then, the researcher analyzes the three schools practice condition.

II. LITERATURE REVIEW

This study first discusses the field of education- related characteristics and quality education policies. Secondly, to explore the theory of principal leadership and trends: continue to explain school teacher evaluation for professional development and teachers' professional learning community policy practice literature. The following description of each follows:

A. *The Field of Education-Related Characteristics and Quality Education Policies*

The following characteristics were from the school to discuss the meaning and quality, as well as the Ministry of Education and the Department of Education-related features and high-quality educational programs and policies.

1) *School characteristics and quality of the implications*

From the Ministry of Education, county government policies and programs related to planning derived from the ideals of education, even from the parents to choose schools and the abolition of the relative pressure of workarounds. These issues are related to the “Features”, “quality”, “classic”, “model”, “future”, and “sustainable” in the name of the schools. Sometimes, it could carry out in a particular area or to conduct a comprehensive school development, which has a special performance or the quality accredited school.

Taiwan's small and medium schools currently account for the highest proportion of the number of elementary schools, and this study is focused on the development of small schools. “Characteristics” is a feature of the school is only non specialty school programs of the Ministry of Education, but with a special performance (such as reading, character information, etc.). Definition of “quality” is that the performance of schools and teacher merit professional development is closely related to the students' learning outcomes.

According to the Ministry of Education in Taiwan announced the "National Education Curriculum Outline nine-stage" in 1998 and 2000, "nine-year junior high school curriculum Interim Outline" provides that schools should set up a “Curriculum Development Committee”. In addition to the field of learning sessions, still having 20% of the "flexible learning sessions" handled by the school activity or to perform in accordance with the “School Specialty” courses or activities designed according to the needs [2], [3]. Therefore, the definition of school autonomy characteristics may also part of the school-based curriculum. Excellent performance and quality school with characteristics has meant that teacher professional development forward with good results and student performance.

2) *The ministry of education and the department of education-related features and high-quality educational programs and policies*

UNESCO (United Nations Educational, Scientific and Cultural Organization, referred to as UNESCO) held a meeting in New York in September 2010, and adopted a program of continuous improvement, the Millennium Development Goals of education action.

2004 Education Policy White Paper reveals: “In-depth understanding of Taiwan, Taiwan high technology towns, development of school characteristics”. The special school is not only belong to the Ministry of Education program, but also means a kind of special performance in school curriculum, such as reading, character information. Teacher professional development facilitates students' performance and school efficiency.

Taipei County (now known as New Taipei City) from 2003 began to promote the characteristics of elementary schools in remote areas, and local government wants to integrate human resource benefits, funding, environment, and school community. Yunlin County also implemented restructuring programs of high quality school. After several meetings and small schools into high-quality

survival value of restructuring plans, high-quality transition plan means to cut down and merge to promote the school transition policy in 2006.

In summary, the Ministry of Education and the Department of Education to implement the relevant characteristics and quality education programs and policies, and its implementation through joint participation of teachers and students, such as Green environmental protection, active campus environmental elementary school and ecological planning practices or information seed school's curriculum and instruction, or the use of active space program featured schools, art programs etc. are cultivating students under the guidance of teachers, school restructuring and development together to make the performance different from the past. However, these processes are related to the principal and school leadership practice closely related to education policy.

B. *The Theory of Principal Leadership and Trends*

Leadership is a dynamic process [4]-[6], but it also has correlation with others [7]. Leaders influence subordinates through role play [7], [8]. Human and material resources achieve the goal of the organization or leader. From TQM oriented point of view, the education of principals have unique insights into the school's vision to provide professional development opportunities for teachers to re-school organization, leadership and members of harmony and creativity in decision-making, shaping school operations model and sustainable development. However, many principals leadership theory, including knowledge leadership, transformational leadership, change leadership, distributed leadership, FireWire leadership, transactional leadership, fifth grade leadership, policy practice as the study are discussed in the case of the initiative. After an active and positive approach, the researchers initially understand the background context to explore these schools only for the leadership, change leadership knowledge, distributed leadership, curriculum leadership, to better focus its principals' leadership and team leadership as specific.

C. *The "Teacher Evaluation for Professional Development" and "Professional Learning Community" in Practice*

Teacher evaluation for professional development is a kind of diagnostic evaluation and counseling methods. Teachers provide opportunities for self-reflection of teaching, supplemented by teaching tutor system, promote teacher peer collaboration. Through assisting teachers' professional growth and enhance the professionalism of teachers, improve teaching quality. There is no clear source of law based on elementary and secondary school about teacher evaluation for professional development. It is a trial mining stage, and encourages schools to apply for the pilot. From teachers volunteered to participate and the head of teachers play a guiding role, let teachers through the process of self-review and peer guidance enhance the professional image [9].

Teacher professional learning communities mean to create self-reflecting teacher professional development resources and support groups. Teachers understand the advantages and disadvantages of their own teaching, then further improve teaching, and provide appropriate professional development programs to promote the teacher professional development. Through enhancing the teacher professionalism, they improve their teaching quality and improve student learning outcomes.

III. METHODOLOGY

This study is the leadership from the principal field of vision and policy into practice, discussed the three features and high-quality schools towards the microscopic processes in the course of the transformation process (see Fig. 1). First, the researchers conducted interviews with the case in order to understand the characteristics of the three schools to become the background and process quality, delve into the current president and served as school principals and leadership led the team to the history of the form, changing schools before analysis, during and after the course, in this period about the school's participation in various programs and policies, and to understand these three schools principal leadership and teacher evaluation for professional development with the professional learning community policies. Finally, through focus groups confirmed that school principals in shaping features and quality of school leadership and policy practice course.

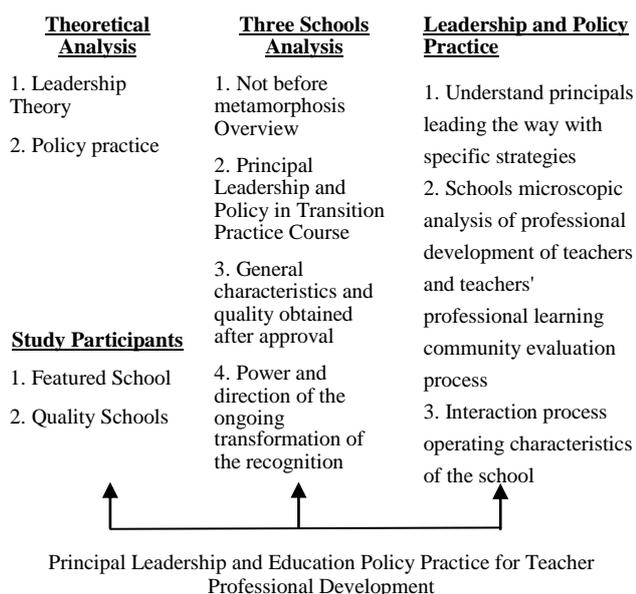


Figure 1. Research framework

According to data collected coding, organize, summarize and analyze the way through the triangle checklist, information will be compared in order to meet the research object fidelity, the following is hereby cited school interview coding. Three schools nicknamed Star Elementary School, Moon Elementary School, Sun Elementary School describe the current features and quality outcomes:

Star Elementary School: the school use the special geographical environment, thereby developing school characteristics, prompting the school to its geographical core of natural science knowledge, link local materials, information, astronomy, climate, language and arts and humanities, etc. Let the kids began to cultivate an interest in astronomy, and try to participate in the relevant competitions, then making school education more educational.

Moon Elementary School: School human resources are available in the community, faculty, students, and parents to participate in community activities, combined with school characteristics and use of resources, cooperation and education-related social education institutions, arrange for students to make eco-tours, and local characteristics into teaching courses for curriculum design. Students close to nature activity and learn valuable renewable resources. School curriculums promote the spirit of this community from understanding of the student experience, students training, and finally to show. It is not only that teachers use resources for student fully study, but also parents support the school. School received from internal and external recognition.

Sun Elementary School: the dominant school in offshore development characteristics, facing the Taiwan Strait under the waves and tidal changes little, so that students get close to the ocean, like the sea coexistence, learning how to operate OP sailing, organizing competitions. Students gradually learn marine resources in school. Students also have opportunity to join small anchor teams such as responsible for reading, music, and then made into a video file for learning more aware home environment.

TABLE I. THREE LEVEL TYPE AND STAGE

		Three Level Thinking		
Type		Principal leadership strategies and promote teacher professional evaluation and professional learning community for professional development	Teacher evaluation for professional development and reflection characteristics of the school community involved in promoting and deepening courses	The characteristics of the elementary school curriculum and leadership practice
Stage		<ol style="list-style-type: none"> Set an example by participating in the implementation of educational policy school. The identity of the community opinion leaders sought Establish / Enrich their professional knowledge and ability Promote and develop school leaders Maintain ethic / achievement companion work. Use contingency leadership 	<ol style="list-style-type: none"> Observe the atmosphere driven, growth mutual The advantages of a small school is easy to operate and community dialogue to discuss Promote the autonomy of teachers participating in teacher evaluation for professional development and teacher professional learning community enthusiasm 	<ol style="list-style-type: none"> The key characteristics of the school curriculum leadership is leadership model Stability and special courses design Remain optimistic about the challenges and impact Future leaders characteristics from schools members reflection

IV. DATA ANALYSIS AND DISCUSSION

For the purposes of this study, the researcher analyzed and discussed the policy conditions and implementation as following (Integrate to see Table I).

A. *Principal Leadership Strategies and Promote Teacher Professional Evaluation and Professional Learning Community for Professional Development*

1) *Set an example by participating in the implementation of educational policy school*

With the advent of the knowledge economy era, the importance of intellectual leadership in modern organizations already rising on the survival and development of the organization is very important [10], the organization expects to promote knowledge sharing and innovation through intellectual leadership, let the implicit and explicit knowledge complementary growth, and thus enhance the vitality and effectiveness within the organization to reach organizational development goals and maintain its competitiveness, principals actively promote knowledge management, knowledge sharing and create an atmosphere of professional community cohesion school will help on improving school performance.

“Principal communicated with us for two projects. He did not really be a model teaching to teach students, but he grows with us together.” (S01.101D0815, director)

“When we encounter difficulties, he actually helps us think of some strategy or find some resources. He can give us is actually a pretty big resource.” (s02.101D0815, director)

“In fact, we also have been observed our principal teaching. Because here is probably stay this school more than two years, he wants the same with other teachers. If we decided to do, no matter what kinds of difficult that we need to overcome. At the same time, he would accompany. We are part of the school learning community, he did not personally go to the classroom to teach, but he is with us, and grows with us together.” (s03.101D0815, director)

2) *The identity of the community opinion leaders sought*

Distributed leadership means a leader through power sharing, in order to improve the effectiveness of the organization, according to different task specialization and organizational purposes, empowerment, flexibility to adjust the organizational structure established by team members trust each other to share and contribute knowledge, collaboration, a leader in order to achieve organizational vision and work incentives course.

“He's very smart and through continuous dialogue with teachers. If he wants to push a thing, he would not speak directly. Because each school has different atmosphere, he would focus the influence person to ask questions, and then listen teachers' core ideas. Then, this way is easier to success the plan that you want to so, the success rate will be higher.” (s03.101D0815, director)

3) *Establish / Enrich their professional knowledge and ability*

After the nine-year curriculum implementation, giving schools autonomy level of school-based curriculum development, both for school principals leader, need to lead the school to promote school-based curriculum, curriculum leadership success of school-based curriculum department key [11]. But combined with curriculum and leadership, "curriculum leadership" is for curriculum leadership as a positive.

“Because I think he is a professional teacher should say it, because he said a lot of things are very professional, as we speak headmaster because he read many books, he is been constantly refined, so he should efforts, he may not know himself, he tried to stand he is a professional teacher, because he is a professional teacher, he can be enough to lead the people of this part.” (s03.101D0815, director)

4) *Promote and develop school leaders*

Principals face of education administration education reform forward, the parents of the importance of teaching and learning, teachers' professional autonomy demands of human rights under the attention of students and enhance the quality of school management needs. Principals must be transformed traditional leadership model for the use of new leadership theory, guided the school to build a dynamic business development organization has kinetic energy, so that the teacher in a harmonious working environment, enhance their professional autonomy. In this process, the president will also lead the peer leaders to grow and develop.

“After these years, I think I want to go into another stage. Since we have some teachers coming and going in few years, there are a few teachers that he has very own ideas. I think teachers are independent, but need to change to co-work. I just want to invite them that really wanted to join with us. I would say, “Do you want to play with us? Play!” Let the teachers become the real members.” (B01101D0821, principal)

5) *Maintain ethic / achievement companion work*

Curriculum leadership level of cover includes: philosophical thinking, curriculum development, professional development of teachers and teaching, student learning, public relations, school culture and resource management level, the study school principal characteristics combined school curriculum, curriculum leadership and support to help teachers teaching and arouse enthusiasm, while improving and promoting student learning.

“Teacher's teaching ability continues growing, and they would find their interesting things to do. Principal raises their enthusiasm. Principal would say, “You say what school you want to push it, you still afraid of something?” (s02.101D0815, director)

6) *Use contingency leadership*

a) *Positive, proactive morale*

Distributed leadership means leadership activities in an organization spread on each member, each member in their area of responsibility and the atmosphere of trust and cooperation, participation in the practical operation of the leadership.

“My goals have two directions that one is the development of specialized courses, and the other is teachers' professional development. So, teachers follow from the school vision, everyone is a member and not to go along.”(B01101D0821, principal)

b) Passive, waiting passively change opportunity

School principals sometimes required in response to the current situation make adjustments as necessary, and sometimes had to be passive ways of dealing.

“Principals are not the king, and sometimes not so much power. It may be through the guiding depends on what kinds of situation. We just take advantage of to do it. If we want to insist on what we want to do, in fact it is not so easy.” (C01101D0816, principal)

B. Teacher Evaluation for Professional Development and Reflection Characteristics of the School Community Involved in Promoting and Deepening Courses

1) Observe the atmosphere driven, growth mutual

Policy implementation of mutual adaptation process model is based on each other equally that is two-way communication process, not a one-way process. So, the process of policy adaptation is an important part of policy implementation. Teacher evaluation for professional development and learning community programs are the kinds of pressure in schools.

“We record lesson in every observation, when we open classroom. All teachers help him, and give him advice.” (S02.101D0815, director)

2) The advantages of a small school is easy to operate and community dialogue to discuss

Teacher evaluation for professional development is the voluntary program. Teacher professional learning community is the kinds of supporting programs that encourage self-organizing teacher professional learning community for peer dialogue and professional growth.

“We have a consensus that we would do well together, in fact, this advantage is such a small school.” (s02.101D0815, director)

3) Promote the autonomy of teachers participating in teacher evaluation for professional development and teacher professional learning community enthusiasm

Policy can affect the smooth and effective implementation of this policy four main variables were content with the decree of communication, the implementation of available resources, executor intention, bureaucratic structure [12]. Autonomy for teachers is the most important key.

“Let teachers know what is self-learning, because Community is hoped teachers enthusiasts get together for their own professional growth plan a talent, you have to use some of the money can give you, you can go to ask the teacher, you can go to What do the interview outside, that is to say it should be autonomous, a start if you are not your favorite, it is possible that autonomy will be relatively low, it felt like to be prescribed”(B01101D0821, principal)

C. The Characteristics of the Elementary School Curriculum and Leadership Practice

1) The key characteristics of the school curriculum leadership is leadership model

In the course of the implementation of education policy, the role of higher authorities or heads of standing counseling, authorize subordinate units or allow subordinates to participate fully in order to achieve the policy objectives of education. Transformation process between school policy and practice is very important today, so that educational premises are more understanding and awareness smoothly.

“We'd start from that course, we start setting goals on the hope that the school has a position, we have our own signs, that “What signs are we? So-called blue ocean strategy”, let the parents know that you can clearly doing, so we decide this curriculum called specialty courses.” (B01101D0821, principal)

2) Stability and special courses design

Three schools sometimes faced with this dilemma, but unhurried overcome difficulties and reflect characteristics of the school vitality curriculum to find and create opportunities.

“I think this thing is really important, I will own more than advocacy, but also to keep constantly talking about Oh! Courses like this thing, teaching this thing, if you do not often appear to talk, to remind, to say then it will slowly be seen slowly so I feel like we say in curriculum development, I'll let this thing turn out to be a sure thing to push.” (B01101D0821, principal).

3) Remain optimistic about the challenges and impact

Any well-planned education policy, wishing to achieve the successful implementation of policy objectives, there should be adequate funding support, human resources support can be effective, appropriate equipment and sufficient space information of interest policy execution, enforcement agencies and personnel responsible for the integration of a variety of resources, using a variety of different modes of action, and ultimately achieve the goal set up by a series of education-related policies dynamic course.

Policy practice is a dynamic process. The policy was legalized, the proposed enforcement rules to determine the responsible authorities, configure the necessary resources to appropriate management methods, to take the necessary action to make policy programs implemented to achieve dynamic process intended target or purpose.

“I want to encourage teachers to participate, and they always say that 70% of teachers do not want to participate, only 20% of teachers want to do. But they would see what 20% teachers doing, and then 70% of teachers will gradually join.” (B01101D0821, principal)

4) Future leaders characteristics from schools members reflectio

Principal leadership and policy practice, the ultimate aim is to promote quality of schools into schools, while supporting teacher growth and help students learn.

Education policy practice needs to reflection from schools, teachers and students.

“It is really a lot of pressure for some teachers.”(C01101D0816, visit the principal)

“In fact, I already know there will be resistance at heart, so I do not expect one hundred percent, so I would not be disappointed and will not be disappointed under more courage to go through some of the difficulties that say I have already they are expected to face some are reluctant, not willing, or that is not even interested in that way.”(B01101D0821, principal)

V. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

1) *The key characteristics of the school curriculum leadership is leadership model*

Principal Leadership is an important cornerstone of policy practice. Principal Leadership is a leader in the use of organizational commitment, values, enhancing and transforming subordinates, beyond individual interests to the interests of the organization as a priority, enabling organizations to generate innovation and excellence is successful, will lead the organization toward the existing education policy trends and fashion forward. Three schools at the same time and therefore the Ministry of Education policy, and even other programs are still actively involved in coping. Principal needs to learn how to find consensus (see Table II).

TABLE II. THREE TYPE FOR PRINCIPAL LEADERSHIP AND EDUCATION POLICY PRACTICE

Type	School		
	star	Moon	Sun
Same problem	1. Fewer students and move to neighborhood schools 2. More empty classrooms and finance disadvantage. 3. Enrollment and close school pressure.		
Same strategy	1. Join local government education policy. 2. Join MOE policy: teacher evaluation for professional development and learning community. 3. Volunteer other programs for their school surviving and school promoting.		
Background	Between City and county	Mountain Area	Urban district
Characteristic	astronomy	Natural science	Ocean Couture
Principal	1. Find the key persons and facilitate learning culture. 2. Join the program and being a model. 3. Connect with staff team and teacher team. 4. Find the school vision and change habitu s. 5. Apply all kinds of program, shaping characteristic curriculums.		
Staff teams	1. Due to school crisis, try to change and follow principal leadership. 2. Encourage teachers participate. 3. Solve the problems during policy implementation.		
Teachers	1. Get more pressure but enrich their ability 2. Reflect curriculum and teaching. 3. Understand the school, Students, and community.		
Students	1. Like to learn and connect with variable ability. 2. Every student is shining star.		
Parents and community	1. Involve in school curriculum and being volunteers. 2. Understand children learning and school effort.		

2) *Waiting for school to find consensus on the development of specialty schools ripe*

Three schools in the past thought to the development of specialized schools, initially wanted to improve the campus, but the accident developed into a specialty school. Characteristics school is a win-win strategy of operating in various curriculum areas. It carries through the sublime combination of curriculum design and teaching, student-related gender equal, focusing on students' abilities and values. Professional Learning Community deepens the development of specialized courses through teacher evaluation for professional development.

3) *Professional learning community deepen the development of specialized courses through teacher professional development and teacher evaluation*

Three schools try to building high-quality schools and multi-ability students as the core curriculum through the development and implementation of symbiosis, teacher professional development, and administrative mechanisms to support effective teaching, creating and planning specialty schools, school and community development-oriented. After the transformation characteristics of sustainable development facing the school, principals make teacher evaluation for professional development and teacher professional learning communities to strengthen inadequate and change school culture. Many staffs and teachers start to think from a combination of other programs designed to teach, adding new ideas, such as external professional choice, adding external experts, or outside the professional community applications, deepening and sustainable specialty courses.

B. Suggestions

1) *School located in a mountainous remote areas still face enrollment problems*

Characteristic school located in a mountainous remote areas still face enrollment problems. Local governments should encourage school teacher morale. At the same time, local governments encourage these schools and teachers still maintain high quality and operating characteristics of school spirit school.

2) *Provide and assist other small school with practice of policy-related education programs*

Government needs to provide and assist other small school with practice of policy-related education programs. County and city governments not only need to focus on the principal leadership ability and deepening of the school operational characteristics, but also support the new school operating philosophy for sustainable development.

3) *When the principal characteristics of the replacement and development of sustainable schools still need attention*

County and city governments need to focus on the principal change, and let school characteristics continue. Although three schools still facing enrolment challenge, schools become all of members' family through teacher

evaluation for professional development and learning community.

ACKNOWLEDGMENT

This research was parts from NSC 101-2410-H-415-021 results in Taiwan.

REFERENCES

- [1] Ministry of Education, *100 Year Policy Plan*, Taipei: Ministry of Education, 2011.
- [2] Ministry of Education, *Stage Nine-Year National Education Curriculum Outline*, Taipei: Ministry of Education, 1998.
- [3] Ministry of Education, *Interim Curriculum Outline Junior High School Nine Years*, Taipei: Ministry of Education, 2000.
- [4] C. F. Rauch and O. Behling, "Functionalism: Basis for alternate approach to the study of leadership," in *Leaders and Managers: International Perspectives on Managerial Havior and Leadership*, J. G. Hunt *et al.*, Eds., New York: Elmsford, 1984.
- [5] J. W. Gardner, *On Leadership*, New York: Free, 1989.
- [6] G. A. Yukl, *Leadership in Organization*, 3rd ed., Englewood Cliffs, N.J. Prentice-Hall, 1994.
- [7] J. C. Rost, *Leadership for the Twenty-First Century*, Westport Connecticut, London: Praeger, 1991.
- [8] P. Kotter, *A Force for Change: How Leadership Differs from Managemen*, New York: The Free Press, 1990.
- [9] Ministry of Education, *Teacher Evaluation for Professional Development Pilot Advocacy Manual*, Taipei: Ministry of Education, 2006.
- [10] S. Cavaleri, S. Seivert, and L. W. Lee, *Knowledge Leadership: the art and Science of Knowledge-Based Organization*, London: Elsevier Butterworth Heinemann, 2005.
- [11] A. A. Glatthorn, *The Principal as Curriculum Leader*, 2nd ed., Thousand Oaks, CA: Corwin, 2000.
- [12] G. C. Edwards, *Implementing Public Policy*, Washington, D.C.: Congressional Quarterly, 1980.



Juei-Hsin Wang is a professor and the Director of Graduate Institute of Educational Administration and Policy Development, National Chiayi University. Her research interests are in education policy, teacher education, e-learning. She was an assistant professor in National Chiayi University, and served as the Section Chief of administrative of Teacher Education Center in 2007. From 2007 to 2013, She was associate professor on

Teacher Education Center and Graduate Institute of Educational

Administration and Policy Development. Nowadays, she was promoted to be a professor since 2013.

During ten years, She was involved in university teaching, research, service and local counseling. From 2009 till now, She is working as the director of professional training center of Teacher for Professional Development (Yuling, Chiayi, and Tainan region) of Ministry of Education in Taiwan. From 2004 till now, she has received subsidy from Taiwan's National Science Council (NSC) research grant researches.

Juei-Hsin Wang' research topics included in educational policy, educational administration, teacher education, sexual equality on education, digital education, and attended conferences to issue papers, and published journals papers etc. more than one hundred papers. She has issued related books or papers, such as gender equality on education, teaching materials and methods for the course of activity of elementary schools, Higher Education system of the U.S., teacher evaluation, and training how to be a scientific teacher etc



Yen-Ting Chen is an associate professor with the Department of Mathematics Education, National Taichung University of Education. His research interests are in mathematics education, e-learning, teacher education. He has been served as an assistant professor in Chung Hwa University of Medical Technology, and has also served as an assistant researcher in National Institute of Compilation and Translation and in National Academy for Educational Research.

Nowadays, he is associate professor and the Director of in the Department of Mathematics Education, National Taichung University of Education. During ten years, engaged in kindergarten instructor training, mathematics textbooks, mathematics curriculum reviewed and formulated, and researched in mathematics and science teachers how to interaction through internet platform. From 2008 till now, he has received subsidy from Taiwan's National Science Council (NSC) research grant researches.

His research topics are included preschool education, math and science teacher education, digital education, and attended conference to issue papers, and published journals papers etc. more than one hundred. The author has issued related books or papers, such as science teacher in Asia.