

***Good Methods Could Predict the Future:
We Discussed the Teaching Methods of Rural Teachers in Taiwan***

Jen-Chia Chang, National Taipei University of Technology, Taiwan
Sheau-Feng Lin, National Taipei University of Technology, Taiwan

The Asian Conference on Education & International Development 2024
Official Conference Proceedings

Abstract

Due to the lack of educational resources, students in remote areas needed to turn their lives around through school education. The purpose of this study was to investigate the teaching methods used by Taiwanese teachers in remote areas to enhance students' learning motivation. In this study, we used document analysis to compile the teaching methods that had been implemented by 24 teachers who had received awards in the past four years and summarized five common points: 1. Actively guided students to obtain certifications and participate in skill competitions to boost their confidence; 2. Encouraged students to qualify for special talent admissions exams, thereby increasing their chances of pursuing further education; 3. Arranged off-site internships and visits to enterprises for students so that they could understand the relationship between work and reward; 4. Gave full play to the unique autonomy of remote and rural students to realize the balance of the five education systems; 5. Through the blended teaching method, teachers and students from urban and rural areas synchronized their online learning exchanges, and teachers were also able to stimulate more new teaching methods as a result.

Keywords: Education in Remote Villages, Learning Motivation, Teaching Methods, Localization

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The International Academic Forum
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Introduction

Since 1996, CommonWealth Magazine has been producing an annual special issue on education in the hope of becoming the media that guides the new generation of Project Hope. 2023's special issue cover, "Equal Education ~ No Child Left Behind," lists three problems: 1. The two major international tests, from the 2018 PISA scores in math, science, and reading are all lagging behind Taiwan's children of the same age; and the 2015 TIMSS found that Taiwan's lagging students are in non-mountainous, non-municipal schools. 2. The TIMSS in 2015 found that Taiwan's lagging students are in non-mountain and non-municipal schools. 2 Teachers do not study or retire because the Teachers' Act has resulted in a lack of evaluation and elimination, and teachers who are dominant are unable to empathize with the disadvantaged students, and there is a lack of in-service training in the field. 3 Most of the students who stay in remote villages are the disadvantaged students; childlessness has caused non-municipal schools to face the result of school cuts and mergers, and the result of the watermelon effect has caused the disadvantaged to stay in the "small watermelon schools" 1. There is also a movie adapted from Wang (2011) first education-related movie in Taiwan, "Teacher, will you come back", which presents the current situation of education in remote villages. As the media has transparently presented the current situation of education, we should invest in researching ways to improve education in the remote villages, which is the first reason for this study.

The Ministry of Education (MOE) proposed five solutions for education in the remote villages in 2015, hoping to pay attention to remote villages education with policies. Pan (2016) suggests that due to the lack of educational resources at home, the learning and growth of disadvantaged students in remote villages are mostly undertaken by schools. In recent years, the teacher training system of universities has brought prospective teachers to participate in educational internships in the remote areas. The "PASSION Program for Quality Education in the Remote Areas" of the National Taiwan Normal University (NTNU) will bring 35 students to serve in the national middle schools in Huadong in 2023, and the Teacher Training Center of the North University of Science and Technology (NTNU) will bring 20-30 students to perform educational services in the remote schools across the whole of Taiwan each year in the summer vacation from 2022 onwards, so as to allow prospective teachers to see the needs of the children in remote areas and promote the awareness of the value of the work of the teachers. This will help raise teachers' awareness of the value of their work. While there are innovative programs from education policies to school responsibilities and the training of prospective teachers, how effective are the teaching methods in the education of the remote villages? This is the second reason for this study.

According to a study conducted by Prof. Jen-Chia Chang of the Institute of Technical and Vocational Education at the Northern Taiwan University of Science and Technology (NTUST), Taiwan's new student enrollment in professional groups has decreased by 38.6% from 2011 to 2020, and the number of new students in higher vocational schools in the remote areas has decreased by even more than 50%, the key reason for this is not only the lack of funding for education in the remote areas, but also the shortage of regular teachers who have stayed in their posts for a long period of time, which has a direct impact on the new students' willingness to enroll in school. The key reason is not only the lack of funding for education in remote areas, but also the shortage of permanent teachers, which directly affects the willingness of new students to enroll. Therefore, Prof. Renjia and the Xinmiao Education Foundation have worked together to develop a long-term development plan for remote villages, encouraging outstanding technical high school teachers to teach in remote areas,

signing an award program for teachers' service in remote areas, and appointing the Teacher Training Center of NKU to handle the selection of technical high school teachers' service awards. The third reason for this study is to allow civil forces to combine the achievements of excellent teachers to organize meaningful teaching methodology data, which can give remote teachers a direction for learning.

Literature Review

Innovative Local Teaching Methods for the Future of Remote Children

Su (2017) The basis of evaluation for teaching in remote areas should be adjusted to “regional life education” as a reference, which can explore children's talents and make them happy to learn in order to achieve effective teaching. Zhan and Wu (2015) In Europe and the United States, countries focus on the development of unique curricula, innovative teaching, and digital teaching. In recent years, Taiwan has adopted the four major strategies of “teaching innovation/educational experimentation,” “digital integration/virtual-practical co-learning,” “resource matchmaking/social interconnectivity,” and “seeing change/exemplary sharing” to assist migrant students in laying down their basic academic skills, developing their diversified abilities, making good use of digital learning, mastering the local culture, and developing international perspectives. The program is designed to help students in remote areas establish basic academic skills, develop multiple abilities, make good use of digital learning, master local culture, and develop an international perspective. Hong (2019) suggests that local cultures should be used as the content of teaching courses in remote villages to develop a refined and unique basic education. Tsai (2019) interviewed the innovative teaching of Ms. Chia-Hsing Tsai of Kaohsiung's Tianliao Junior High School, who found that getting to know Tianliao through reading can help children improve their ability to express themselves, as well as teach them how to love their hometowns and found that it can help children find their self-confidence. To summarize, teaching methods should be integrated with local culture, and instead of focusing on the effectiveness of further education, teachers should think about how to innovate in teaching methods, and make adjustments to teaching by integrating local conditions and contexts, in order to allow children to learn effectively and happily.

Teaching Program Combining Practical and Theoretical Work Gives Migrant Children a Sense of Achievement and Competitiveness

Lu (2019) interviewed Taipei Muzha Higher Engineering, found that alumni suggested adjusting the flexible teaching content, the establishment of cross-disciplinary integration of business "micro-employer entrepreneurship course", so that students can apply the theory of practical application, to enhance the interest in the future career, but also to increase the students want to go on to college have the ability to diversify the admission, and even the teachers due to the course to do teaching seminars to enhance the ability to teach. Zhan and Chen (2017) reflections on the flip-flopping of remote villages have pointed out that education should focus on the basic knowledge of future talents, not in the boundaries of the standardized textbooks. Goleman and Senge (2014) proposed that the future world needs talents who have the ability to understand themselves and to care for others. Wang (2017) education needs to pay attention to avoiding the learning-use gap, so the proportion of practical courses should be increased, and giving students the opportunity to work with the industry earlier can enhance students' practical ability, and they can also obtain workplace intelligence from the industry, which can be used as reference information for education

reform. In summary, when planning curriculum and teaching methods, teachers in remote areas should pay attention to the integration of practical and theoretical aspects, and focus on learning motivation in order to fundamentally improve the effectiveness of learning, and put the needs of future talents into the curriculum, so that the industry's evaluation of the children will increase, which will enhance the children's sense of achievement, and increase the right to choose the higher education, which is the expectation of parents and teachers.

Use Technological Tools to Generate New Teaching Methods and Revitalize Old Courses Into New Ones

Xiao (2023) interviewed the Minister of Education on the policy of digital learning resources, making good use of digital tools to allow teachers to reduce the differentiation of teaching, and can guide students to have the power of self-learning, but also live broadcasts so that excellent teachers can cross-school teaching, and teachers in remote villages to serve as a counselor to do to supplement the individual differences in the education, to enhance the results of teaching. Peng (2023) found that schools in rural areas with fewer children may only have one or two students at each grade level. Through online co-teaching, small schools can engage in alliance teaching, and teachers can cross-school preparation and support each other, which overcomes many of the problems associated with teaching in rural areas. Chen (2019) Taitung New Life Junior High School has created a group of new entrepreneurs with learning motivation by utilizing technological tools to cultivate students' ability to “do, use, and think”. Lin (2017) Teaching methods can be used to “solve tasks” through the integration of information and technology, which can stimulate students' ideas, generate positive discussions, and then be transformed into their own knowledge to enhance the effectiveness of learning. Bernie and Charles (2011) Digital literacy is a key competency in the twenty-first century that not only allows students to receive learning assistance, but also allows them to communicate effectively with others. In summary, localized teaching methods, teaching methods that combine practice and theory, and teaching methods that incorporate technological tools can enhance learning motivation, generate innovative teaching methods, and give the curriculum a sense of freshness after revitalization to enhance students' interest in learning.

Research Design

According to Berelson (1952) definition, “content analysis is an important research method for describing the content of visible communication in an objective, systematic, and quantitative manner,” so we used the practice projects of remote area education service, which had been selected by Xinmiao Educational Foundation for its quality teaching methodology from 2019 to 2022, as the samples for the document analysis method, and collected, analyzed, summarized, and researched the data for each of the 24 remote area teachers' practice plans in four years, minus the duplicate award winners.

In Chen (2007) qualitative research, the researcher himself is a "research tool", which is crucial to the quality of the research, that is, the combination of one's “experiential knowledge” and “scientific knowledge” is utilized. In addition, by using the practice program of quality remote teachers, the teaching methods of remote teachers in Taiwan were explored.

Results

The purpose of this study is to investigate the teaching methods used by Taiwan's remote and rural teachers to enhance students' motivation to learn, avoiding the teaching methods used in basic subjects, and then to generalize five common points:

1. Actively Guided Students to Obtain Certifications and Participate in Skill Competitions to Boost Their Confidence

- Select students with outstanding skills to participate in the National Skills Competition. Serves as a community instructor and encourages participation in skills competitions and enrollment verification. (A1-201911a, A1-201913a, A2-201911b)
- Provide "Skills Assessment Certificate Enhancement Classes and Certificate Counseling Classes": Certificates can also add points for further education and employment. (B1-201922a, B2-202022a)
- Skills and practices are used to guide students to get their hands dirty so that low academic achievers can increase their confidence. (C1-201912c)
- Assist students in obtaining a Class C license; assist students in obtaining a Class B license to qualify for the Gifted and Talented Program; train Aboriginal students in obtaining a Class B or C license to receive scholarships. (D1-201912d)
- Assisted 100% in obtaining Technician B license with \$2,000 incentive. Asked the Office of Academic Affairs for funding to assist in the preparation of students to take the exams and to train industrial students to compete in technical competitions. (E1-201922f, E2-202211e)
- Counsel students in skills certification courses and teach them the skills to obtain licenses in order to participate in the national skills certification. Encourage students to participate in competitions and to use positive encouragement to boost their self-confidence. (F1-201922g, F1-202021h, F3-202011j)
- Instructs students to obtain a Class C Motorized Bicycle Repair Technician license and instructs students to obtain a Class C Automotive Repair Technician license to increase hands-on skills. (G1-202013e)
- To strengthen the counseling for each student to obtain at least one Technician C license before graduation and encourage students to take the initiative to study for a B license. (I1-202221m)

Among the 14 teaching methods proposed by 12 out of 24 teachers, the part of students obtaining licenses and participating in skill competitions to win awards was identified, and this study found that licenses and competitions to win awards are one of the very important teaching methods in migrant education.

2. Encouraged Students to Qualify for Special Talent Admissions Exams, Thereby Increasing Their Chances of Pursuing Further Education

- Assisting students in planning their future direction: choosing to continue their education. (B2-202024a)
- It clearly explains the strategies for students to advance to the next level of education, such as screening and honors, and establishes a goal for students to work towards. In the practice of presentation and interrogation, students will develop their oral expression and critical thinking skills, which will help them to perform well in the interviews for

technical excellence, selection and even job hunting. Cultivate technological expertise and qualify for direct or guaranteed selection through participation in science student competitions. (D1-201914d)

- Encourage students with examples of successful cases from previous seniors to increase motivation. Compare the difficulties in enrollment points with those in the promotion methods such as meritocracy and selection, so as to enhance the motivation. To remind students that they can compete for extra places in the selection process because of their Aboriginal status, which gives them an advantage. (D1-201911d)
- To assist students in obtaining relevant professional licenses and to enhance students' ability to find employment and further their education. (F2-202025i)
- Counseling through the advanced license examination, guidance to enter the mechanical or related industries for employment, aspiring students, enhance the competitiveness of education, and counseling to apply for the four technical colleges and universities for study. (G2-202112l)

Among the six teaching methods suggested by four of the 24 teachers, teachers used various methods to encourage children to develop a desire to go on to higher education, such as the qualification for giftedness, and this study found that encouraging the acquisition of the qualification for giftedness as a way of obtaining the opportunity to go on to higher education is one of the most important teaching methods in the context of remote rural education.

3. Arranged Off-Site Internships and Visits to Enterprises for Students so That They Could Understand the Relationship Between Work and Reward

- Provide work-study internships or service-learning programs: In order to help needy students, we arrange work-study internships and earn the necessary living expenses to realize the spirit of "Learning by Doing". (B1-201924a, B2-202023a)
- Continuously plan and build the necessary internship equipment for the courses, and the teachers collaborate in the teaching and off-campus visit programs to understand the current situation of the workplace and participate in the internship courses, so as to have the relevant knowledge for the future career development and the salary plan. (E1-201923f)
- To nurture junior technical talents in engineering planning and design, engineering surveying and mapping, and geographic information application, so that the development of practical empowerment can keep pace with the industry. (F2-202026i)
- In conjunction with the Ministry of Education's Technical Vocational Re-engineering Program, we provide students with the motivation to learn as well as the ability to support themselves, enhance students' training in ornamental plants and garden construction, and teach students coffee cultivation and roasting techniques and methods, so that students can have a skill. (F3-202013j)
- In conjunction with the needs of local enterprises, we will join hands with them to conduct visits to cultivate talents in research and development of computerized mechanical drawing and machinery manufacturing. (G2-202115l)
- We have developed multi-disciplinary courses, such as the jade grinding course combined with nature exploration and video recording course, and the audio-visual editing course combined with guided tours, to enhance students' practical skills and actively promote industry-academia collaboration opportunities. (I1-202222m)

Among the seven teaching methods proposed by seven of the 24 teachers, teachers actually used the part of school internships and business visits to give students a sense of experiencing

work and rewards, and this study found that workplace experience is one of the very important teaching methods in migrant education.

4. Gave Full Play to the Unique Autonomy of Remote and Rural Students to Realize the Balance of the Five Education Systems

- Students are introduced to their own culture: The undergraduate "Engineering Software Applications" course is integrated into the Aboriginal culture, and in conjunction with the school's ethnic language program, students are introduced to their own families and cultures in their own languages, and at the same time are given the opportunity to identify with their own ethnicity. (B2-202026a)
- Developing students' interests and giving students the stage and space for development in a student-centered model. (C1-201911c)
- Invite tribal dance teachers to train aboriginal music and dance talents, participate in public welfare performances, support tourism development related activities, and participate in international volunteer activities. Expand students' horizons and lead them to participate in national competitions and performances at home and abroad to cultivate their self-confidence and stage performance abilities. (K1-201924a)
- Guiding students from the Islands to develop special talents and sound physical and mental health. (G2-202114l)
- We have begun practical work on the propagation of ornamental aquarium creatures such as Rancho and Ivory Anemone Snail, and we will continue to plan the curriculum in accordance with the goals of the program. (H2-202112n, H2-202111n)
- Combining the characteristics of local industries, "Jade Polishing" and "Stone Painting" are planned as compulsory courses. To offer a variety of elective courses and to incorporate a flexible curriculum into the new syllabus. (I1-202222m)
- Through the "Workplace Experience" in each semester of the course, in collaboration with the industry, students can go out of the campus to the community and the countryside to experience the fishing villages and to pass on their skills in the course of their studies. (H1-202024k)

Among the 8 teaching methods proposed by 7 of the 24 teachers, all of them used local resources and cultural characteristics as important teaching methods, which is also in line with the current education policy of promoting talents, and this study found that giving full play to the unique autonomy of the migrant students is one of the most important teaching methods in migrant education.

5. Through the Blended Teaching Method, Teachers and Students From Urban and Rural Areas Synchronized Their Online Learning Exchanges, and Teachers Were Also Able to Stimulate More New Teaching Methods as a Result

- Producing online learning programs: Ensuring the quality of teaching and learning, and adding more teaching features to make the curriculum more diversified, so that students can review the curriculum anytime, anywhere. We also conduct cross-campus research and production with other teachers, with the aim of improving the gap between urban and rural areas. (B2-202025a)
- Insisting on professional education and research, utilizing online resources, designing and innovating individual teaching methods, and arranging online cross-school simulation competitions: promoting online teaching platforms, providing a platform for teachers and

students to use online teaching materials, and allowing teachers in urban and rural areas to communicate with and learn from their students. (K1-201922g)

- In addition to guiding students to use credible digital resources, students can also display their work on the platform, increase the exposure of their work through online interactions, and invite teachers from other schools to give guidance and encouragement online. (G3-202013o)
- We advocate the technologization of teaching, combining e-learning, online assignments, and online assessment system tests, so that students can learn anywhere. (G2-2021111)

Four of the 24 teachers suggested four teaching methods, and teachers began to emphasize the teaching method of blended education, which not only shortens the gap between urban and rural areas, but also improves the effectiveness of teachers' exchanges and learning, and this study found that blended education is one of the most important teaching methods in remote rural education.

Conclusions and Recommendations

Education in Remote Villages Needs More Attention.

This study found that the media, academics, the public and education policies have begun to pay attention to the remote villages. Therefore, after organizing good teaching methods, the attention of all sectors can be expanded, so that the snowball effect can reduce the gap between urban and rural areas, so that students in the remote villages will have better development or resources.

Localized Special Education Is the Cornerstone of Culture and the Root of Self-Confidence and Love.

Allowing students to learn from things they like or are familiar with is particularly important for education in the remote areas. This study found that there is no substitute for local culture in remote area education, and through the arrangement of the curriculum, students can be confident in their love for their hometowns and be aware of the strengths of the remote areas, so that the teaching method can stimulate the learning effectiveness of the students in the remote areas.

This Study Can Be Used as a Reference For Parochial Education, But We Should Pay Attention to the Cultural and Resource Constraints of Each Region.

In most schools in Taiwan, there is a strong atmosphere of further education, and the learning incentives for migrant teachers are also based on the incentives for further education, and even the teacher evaluation is based on the rate of further education, which is not applicable to many regions around the world; in addition, the benefits and resources for migrant teachers in Taiwan's education policy are not comparable to those in many countries. This study focuses on the teaching methodology, and it is expected that in the future more research can be conducted in the direction of generating more programs beneficial to migrant education.

The Data for This Study Were Collected During the Epidemic Period and the Results May Not Be Applicable to the General Period.

During the epidemic period, digital teaching methods were not yet popularized, but if research on digital teaching methods can be re-invested after the epidemic, the results should be more useful as a reference for the development of education in remote villages. The period of data collection for this study is from 2019 to 2022. Although many teachers are able to operate digital teaching, due to the sudden arrival of digital teaching, new teaching methods still need to be developed through research, and the planning of the digital curriculum from shallow to deep should also be further studied, even the review of learning effectiveness can be effectively completed online? All of these are worthy of study, and it is recommended that we invest in research in the future, so that our borderless education model can become more mature.

Acknowledgements

We would like to thank Xin miao Education Foundation and Taipei Tech Teacher Education Center for their dedication and hard work in supporting education in remote villages, and for giving us the opportunity to organize and analyze the teaching methods of so many outstanding teachers to create teaching resources that can be used as reference in the future.

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