

A Study of Deepening Cross-Strait Educational Culture Integration and Development Using an Essence Analysis Model

Anpi Chang

*College of Transportation and Civil Engineering
Fujian Agriculture and Forestry University
Fuzhou, China*

Abstract—Education includes cultural elements which form a basis for the rapid improvement of national, social, economic and environmental development as well as scientific innovation. The integration of different cross-strait educational models and experiences allowed an ideal win-win situation to be created. In this study innovative thinking was used to construct an analytical model with managerial content for China to explore the essence of the issues. This made an examination of the different cross-strait educational cultures possible and allowed suggestions and decisions to be made about the development of integrated cross-strait education. The Delphi method was used in this study to conduct in-depth interviews with scholars from Taiwan regarding four aspects: educational policy, the teaching model, teaching equipment, and diverse and continuous development. Relatively objective information, opinions and perspectives were obtained from repeated subjective judgment by 32 scholars from Taiwan serving in Fujian. Essence analysis, based on the interview conclusions and suggestions, was conducted and this allowed concrete proposals and decisions to be made about cross-strait educational culture.

Keywords—cross-strait, essence analysis, Delphi method, educational culture

I. INTRODUCTION

The development of economics and diplomacy across the Taiwan Strait demonstrates the essence of vulnerability and the serious impact of the political climate [1]. If educational and cultural cooperation can be established between the two sides they will be able to learn from each other and develop independent thinking to achieve the ultimate goal of cross-strait cultural exchange [2]. Changes in this future cross-strait cultural exchange in education will lead to a diverse value system creative enough to get rid of rigid “political” and “economic” value thinking [3]. This is especially true in this sharing era, where major changes in the educational system will reinforce the integration of educational culture to the benefit of the overall development of national education [4]. To realize the vision of “Education 2030,” strategic choices of higher education development should embrace more inclusive and more expansive higher education. Enhancement of international cooperation in higher education will help optimize the overall higher educational system [5].

To respond to incentive measures taken by the China central government towards Taiwan, the number of higher education academics from Taiwan teaching in Fujian is soaring. This assistance and its impact on higher education in Taiwan has been felt to some degree across the Taiwan Strait. Taiwanese teachers engaged in teaching as well as research, also face system, norm and teaching adaptive issues. A Traditional teaching model with educational policy guidelines focuses on the realization of goals and governmental policy tasks, but rarely considers the issue of the implied “essence” behind an educational system. This leads to responses to policies, but fails to consider consistency and links to an overall educational strategic system as well as the systematic integration of educational culture. This is particularly evident in modern education, where policies, goals and tasks need to be carefully selected for effectiveness. Education serves as the mechanism to convey and develop culture, knowledge and technology and its essence is to integrate the values involved.

Essence analysis of cross-strait educational culture involves major system engineering. Experts have made many suggestions about the cultural system, teaching, and interdisciplinary cooperation in education. Most of them advised a return of existing cultural education systems to strategic research and development, the establishment of basic guidelines, and the enhancement of basic construction. These should also include a teaching model for future subjects and an examination, analysis, and exploration from different aspect to gain insight into overall strategic need in the future. In addition to the continuous development and cultivation of teaching, student learning needs and the effectiveness of teaching must also be considered to maintain a balance between the two. Integration, from policy to system, to teaching and realization of development, enables educational culture which has visible phenomena, to resolve hidden problems of interdependent causal relationship behind multiple complexities of concrete structure that change along with the advancement of time. In this study an essence analysis model is proposed and used in an attempt to analyze the essence hidden behind the phenomena that benefits the realization of practical and robust quality teaching research and proper modification of educational structure in change.

II. ESSENCE ANALYSIS MODEL

The “Essence analysis model” is an innovative research method that conducts multi-dimensional analyses of a system or issue to uncover the hidden real reason and purpose of the system, event, or issue. As shown in Figure 1, there are four analytical steps in the main structure.

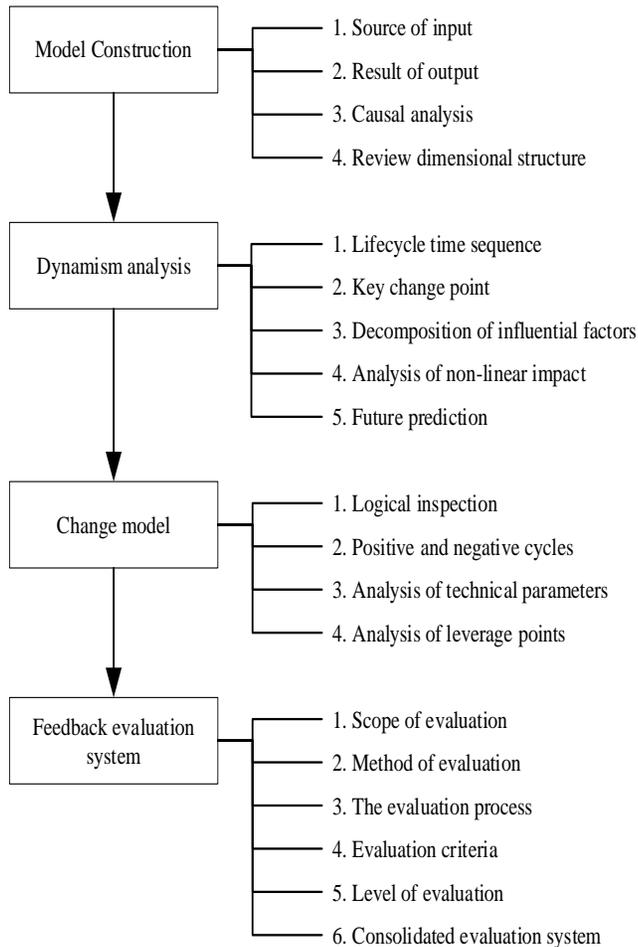


Fig. 1. Structure of Essence Analysis Model

- A. Model construction: models are constructed using the input and output results of analytical items and the causal relationship of influential factors is examined to distinguish internal and external factors. Irrelevant factors are removed to ensure accurate model building. Models built from different dimensions are used to find and examine the real hidden reasons.
- B. “Dynamism” analysis: “Dynamism” can be an issue, an event or a system. As a general rule the “surface” of an issue can easily be found, but an understanding of the essence can remain hidden. “Time” is an important element of dynamism and refers to the dynamic lifecycle of model formation. It is easy to understand

how dynamism develops when an issue under discussion is transformed into a model by including time change and considering all factors that influence that model.

- C. Change model: model change is the main objective of the analyses. When looking for strategies to change models, it is necessary to find “the leverage point” or “the balancing point.” The basis for the innovative application of this concept comes from the “moderate” philosophy of traditional Chinese culture.
- D. Building of a feedback and evaluation system: the establishment of an evaluation system originates from the concept of quality control and management. The process leads from qualification to quantification and to the evaluation of an objective model. This is the most important move in practice after the previous steps have been taken. Feedback helps in the repetition of the steps and continuous modification keeps the process on the right track to solve problems.

III. INTERVIEW DATA PROCESSING AND ANALYSIS

A. Expert Interview Statistics

The interviewed teachers were mainly Taiwanese academics now serving in the higher education system in Fujian. The interviews were conducted using a semi-structured method and those interviewed were allowed to express their own opinions and views independently within the context of the study. The 32 Taiwanese teachers interviewed (all engaged in higher education from unrestricted professional fields) talked on subjects that included educational guidelines, teaching models, teaching equipment, and diverse continuous development within the scope of the interview. Distribution of basic information about the interviewees is shown below: 28% were professors, 63% were associate professors, and 9% were researchers of an age an experience representative of the Taiwanese teachers presently working in Fujian.

The age range of the teachers was between 30 and 55. In consideration of research demand and accuracy, only individuals who had been teaching or doing research in Fujian for more than two years were interviewed. The teachers interviewed ranged in age: 38% were from 36 to 40; 25% were between 35 and 39; 22% were between 41 and 45; and 13% were between 46 and 50 years old. This, from another point of view, indicates the demand for the age distribution of teachers in the higher education in Fujian.

As can be seen in the seniority statistics, most of the teachers (47%) had been teaching or doing research for between 11 and 15 years; 44% had a seniority of 5 to 10 years; and 9% had 16 to 20 years. The distribution of seniority was a decisive and critical factor in this study. In general, clearer consideration corresponds to longer seniority and there were in-depth discussions that offered valuable reference.

TABLE 1. ESSENCE ANALYSIS MODEL

Dimension	Model Construction	Dynamism Analysis	Countermeasure of Model Change
Educational Guideline	Education needs to serve socialism for the purpose of education according to the law.	It is easy to focus on format but it results in “growth” or “learning” restriction.	Leaders must have educational vision for enacting systematic policies and guidelines. Power must be returned to professors to allow them to guide students who have creative thinking ability in professional classes.
			Evaluation methods should not be limited to examination and should be changed to include both examination and presentation.
Teaching Model	Adoption of a knowledge instruction teaching model	It is easy for students to “limit” their thinking and be afraid to engage with their teachers in class.	Interesting and interactive learning methods should be encouraged with more engagement between teachers and students. Students should have more freedom and be guided towards diverse thinking.
		Traditional teaching methods are used and students receive their knowledge passively. There is no fun in class and knowledge absorption by students is limited.	
Teaching Equipment	A long and complicated purchase schedule and individual professional software and hardware purchases fails to meet teaching demand.	It takes a long time for multimedia teaching equipment to be upgraded and students do not have enough good opportunities to gain experience. Taiwan has more comprehensive multimedia teaching equipment and better conditions.	Use of official software with regular updating to protect intellectual property rights and shorten the purchase schedules for both software and hardware to give better teaching continuity.
	In response to external industrial demand, professional cultivation has been initiated, however the upgrading of software and hardware is too slow.	Due to business competition, industry has more resources to quickly upgrade professional software and hardware. The result is that teaching fails to satisfy new industrial demand.	
	Across the Strait, independent development of software and hardware has been observed and is limited to regional requirement. There has been no flexibility of teaching software.	Diverse software and hardware systems are found everywhere and if a version is encountered that is different from that used in the school teaching system, students should receive on-the-job training.	
Diverse and Continuous Development	Although the colleges and departments are independent, scientific research, and teaching material have not been integrated.	There has been no systematic consideration of teaching solutions and connection between tactics and teaching objective.	Teachers in higher education across the Strait should be encouraged to make exchanges in principle to ensure basic professional subject teaching, and that relevant issues should be included in the learning scope.
			Students should be encouraged not to limit themselves to the knowledge available in books but should be able to pursue the spirit of independent thinking to achieve the important goal of exchange across the Strait.

B. Statistical Result

The results of the interviews with the 32 teachers selected for the study are shown in Table 1 with a description below.

In terms of educational guidelines, this study includes only discrepancy and values of educational systems across the Strait based on the principle of balance. Suggestions for two model changes are proposed including proper professional power delegation to Taiwanese teachers and a diverse teaching model. In addition to systematic examinations, presentations or designs related to courses should be introduced to improve evaluation. Most higher educational institutions only focus on material preparation for certification and there has been an imbalance of implementation (or even negative relevance) associated with the systematic essence issue behind the entire educational certification system.

On the Mainland a more systematic model is followed and students are used to the direct instruction of knowledge. This interrupted communication results in a lack of interaction in learning as well as creativity in problem solving in affected students. The open guidance oriented teaching model used in Taiwan encourages interaction and engagement, makes the teaching interesting, develops independent thinking ability, and inspires more creative thinking.

The opinions of the teachers interviewed about teaching equipment were consistent and mainly presented issues of purchase schedule, replacement of software and hardware and system upgrades. No standard, regulations, or regional distribution is in place for system versions used in teaching on the Mainland. We included this issue in the analytical dynamism model and concluded that along with time shift, software versions that are not upgraded in time fail to fit

practical teaching demand and do not keep up with business requirements. Furthermore, more comprehensive system functions increase the demand for hardware as well. What also deserves mention is that low awareness of the maintenance of intellectual property rights for system software in China will increase R&D costs for system developers and affect system upgrade and functional use.

Students on the Mainland should be encouraged to study subjects in which they are interested rather than being limited to required courses. This will ensure the kind of diverse and continuous development offered by the curriculum arrangements in Taiwan. Graduate students who have been exposed to this kind of teaching environment have considerably more competitive advantage over those who have not. Diverse and continuous development is a vital educational need and this is particularly important for those professional industries that have entered the smart digitalized AI era. It is important that this aspect be included in curricula to fully integrate the resources of the relevant colleges and departments. Diverse and continuous integration of teaching resources helps improve teaching quality as well as research in teaching development.

IV. CONCLUSION

Despite the reform process, basic discrepancy exists between the education systems on each side of the Strait. The teaching model in Taiwan is open and independent. Higher education includes research and technology universities with unique professional development features that offer students a diverse choice. From the historical perspective, the system of rule in Taiwan allowed an educational culture that had early contact with the international community. The educational system and teaching model now has much closer links to international higher education. However, educators on both sides of the strait should respect the systems of the other. If both can learn from the other, the purpose of cultural exchange in higher education across the Strait can be achieved. In China,

most teachers are limited to the requirements of the system and use traditional teaching methods to teach and enlighten students. Taiwanese teachers working in higher education in Fujian, need to spend more time adjusting their teaching habits and model.

In the future, value change in educational culture policies across the Strait will move gradually towards more diverse values. Inevitably, values such as diverse cooperation and development, humanity, and respect will rise. The direction of educational culture policy across the Strait will discard values focused only on politics and economy and be transformed to enhance humanity and morality. Initiatives and the choice of educational culture for citizens across the strait that focus on assistance to learning will be cultivated. This will help improve human values such as justice, morality, cooperation, respect, and care to create a new joint format of cultural value for educational culture policies across the Strait.

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