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ABSTRACT

The Triad Perspective Model of Distance Education (TPMDE) guides researchers in developing research questions, gathering data, and producing a comprehensive description of a distance education program. It was developed around three theoretical perspectives: (1) curriculum development theory (Tyler's four questions, 1949); (2) systems theory (Banathy, 1973); and (3) adoption and diffusion of innovations (Rogers, 1983). A new graphic representation of the TPMDE which emphasizes the dynamic, three-dimensional nature of the model was used to guide a study of the Taiwan National Open University (NOU). NOU was established in 1986 incorporating distance learning/teaching concepts from the British Open University and the structure of distance education from Japan. The methods of instructional delivery--television, video, computer, or phone lines--were novel to most teachers and students, and the primary criticisms of distance education have arisen from marked differences between the new program and the traditional Chinese teacher-learning environment. Using the TPMDE's four levels of reference, distance education at NOU was examined from social/environmental perspectives. First, the objectives and goals of NOU and how it approached them were identified. Expectations and perceptions of NOU by other society members and students were also studied and revealed differences between NOU students and conventional university students. The second level permitted a closer investigation of the program structure and innovation itself to determine and evaluate the effectiveness of the interactions of the various components of the program. The third level of the model, process, was concerned with the program's development over time, and evaluation was the fourth level. Suggestions for further research for the NOU conclude the paper, and depictions of the model ("glass lew" and "original" TPMDE) are appended. (11 references) (BBM)

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## **Research and Theory in Distance Education**

Distance education systems throughout the world have begun to exploit the technological advances that are shrinking our planet and making geographical separation all but irrelevant. As distance education continues to grow, the need for credible and rigorous research on designing, implementing, managing, and evaluating these programs increases. Scholarly research, in turn, rests upon our understanding and application of theory.

If, as Holmberg (1985) suggested, a theory is "a set of hypotheses logically related to one another in explaining and predicting occurrences" (p. 2), then Wedemeyer's (1973) assertion and Keegan's (1990) concurrence that distance education has failed "to develop a theory related to the mainstream of educational thought and practice" (p. 52) holds serious implications for researchers in this field. Baath (1982) argued that distance education would proceed from the "deliberate application of relevant educational theories or models" (p. 37). How, then, to determine what theories are "relevant" to distance education and, once determined, how should those theories and models guide the "explaining and predicting" process?

The importance of sound, theoretically-based research cannot be over-emphasized. This emphasis on theory is what will enable researchers to "reassess, if necessary in the most painful of manners, those funny elements of the fast-developing lore of distance education with the object of determining which are really crucial to the success of our mission and which are simply there because we happen to like them" (Griew, 1982, p. 191). A model designed for examining distance education realistically -- as opposed to idealistically -- is described in the following paragraphs.

## **The Triad Perspective Model of Distance Education**

The Triad Perspective Model of Distance Education (TPMDE) was developed as part of a research effort attempting to describe, in an organized and systematic way, distance education activities in Zimbabwe (Zvacek, 1990). This model guides the researcher in developing research questions, gathering data, and producing a comprehensive description of the distance education program being examined.

The "triad" label refers to the three theoretical perspectives around which the model was developed. The first is curriculum development theory and is based on Tyler's "four questions" for planning instructional programs (Tyler, 1949). The second perspective is systems theory, principally the theoretical models developed by Banathy (1973). The third element of the triad is based on Rogers' work on adoption and diffusion of innovations (1983). These three theoretical perspectives were integrated and organized graphically to create four "levels" or planes of reference from which the researcher could study a distance education program: environment, structure, process, and evaluation. (For a complete description of the TPMDE and its development, see Zvacek, 1990.)

In an effort to validate and improve the TPMDE, it was used to guide research efforts in a project to study the Taiwan National Open University

(Shih, 1990). The graphic representation of the TPMDE was modified in order to emphasize the dynamic nature of the model and highlight its "three-dimensional" nature (the original representation of the model was built using Tinker Toys). (See Figure 1.) This new representation, the "Glassview TPMDE" also helped to define the relationships among the theoretical strands of the model.

The primary purpose of the Triad Perspective Model is to guide researchers in creating comprehensive descriptions of distance education systems. This descriptive feature could act as a first step in evaluating a program or tracking progress over time. Another option is to use only one of the four levels of the model in examining a particular program -- environment, for example, to better understand how the distance education program influences and is influenced by its cultural or political setting.

Another possible function of the TPMDE is as a design or planning tool. The perspectives used in studying a program to better understand it lend themselves to planning a system strengthened by theoretical underpinnings. The research questions would be design considerations related to the four reference planes of environment, structure, process, and evaluation. These potential applications, and others, will be examined in future research studies.

### **Distance Education in Taiwan**

Distance education presents a new challenge for Taiwan. This perception of education is different from traditional education in Taiwan in two ways: first, in the concept of equal opportunity for education and, second, in the process of instructional development.

With limited natural resources in Taiwan, economic and political success is perceived to be rooted in equal opportunity for education. A higher education background is crucial for a job in a government office or in private business and is still considered by many a measure of social status in Taiwan (Wilson, 1970). The need for more higher education opportunities has been acknowledged in recent years and subsequent projects have been successful in establishing more universities and colleges. In 1986, Taiwan established a National Open University which borrowed the distance learning/teaching concepts from the British Open University and the structure of distance education from Japan; it has attempted to narrow the gap between desired outcome--more opportunity for higher education--and the actual situation.

The application of distance education in Taiwan has brought with it the new process of instructional development. The methods of instructional delivery in distance education involve the application of various media with teachers and students in different locations; teaching occurs at a variety of sites simultaneously or at different times. This presentation format is difficult to accept in the traditional Taiwanese educational environment because using TV, video, computer, or phone lines to deliver a lesson is novel to most teachers and students. Chinese teachers and students are raised to respect strict discipline in the classroom and to compete with other students in overt performance, which includes interaction with teachers and peers, and

appropriate behavior in the classroom. The classroom atmosphere is set in kindergarten and maintained through college. Therefore, primary criticisms of distance education arise from a perceived lack of interaction and surveillance in the instructional setting and from what is seen to be a more loosely structured teaching-learning environment.

The National Open University in Taiwan was established in 1986 as a "different type" of university (Cheng, 1990). The first proposal for the establishment of NOU was sent to Legislature Yuan in 1983 and a distance education committee went abroad to Britain, South Africa, and Japan to observe their distance education systems and applications. The goals and functions of NOU have been repeatedly debated by legislators and educators in Taiwan in past years. The NOU remains a cooperative effort of educators, administrators, and government agents in adopting a new technology within an old society.

### **TPMDE in Taiwan**

By adopting the TPMDE's four levels of reference in studying a new distance education program such as NOU in Taiwan, the program itself was able to be presented within a social context, as well as a more objective viewpoint. Since the nature of TPMDE is a perspective model, it could present a general understanding through a telescoping approach, that is, the whole picture of a program, instead of trivia, would be shown. In that context, distance education at the NOU, Taiwan, was examined from social/environmental perspectives, following the framework. First, the objectives and goals of NOU were identified and how the NOU approached its goals was also revealed. Expectations and perceptions of NOU by other society members and students were also studied and revealed differences between NOU students and conventional university students. NOU students' self-perception scores were higher than the students' self-perception from regular universities. This may suggest that the NOU students perceived themselves as more valued because they were able to retake the college courses after they had missed the first chance earlier and they may feel more self-determined in their choice of going back to the university. Further study should concentrate on the examination of attributes which caused this difference. According to this study, the general public's perception of NOU was vague as to NOU's role in Taiwan society and higher education. Even the high percentage of citizens who recognized NOU revealed perceptions which suggested there still exists a gap between what NOU is and what the public thinks it is.

The second level in the TPMDE then allowed one to investigate more closely the program structure and innovation itself--the components that functioned in the NOU and moved the NOU toward its goals in the past three and one-half years. In studying the interaction of these components within NOU, suggestions then can be made to add, drop, or modify components. Components such as teacher training and public relations were suggested additions to the NOU structure and the counseling division, which has not operated effectively, was seen as one division best abolished or modified.

The third level of the model, process, is concerned with the program's development over time. The NOU has evolved over the past three and one-half years from 11 sites to 12 sites and student population had risen to 55,653 by Spring 1990. The number of college level courses offered increased to 44 by Spring 1990.

Evaluation was the fourth level of the model. A regular evaluation procedure did not exist in NOU, however, there were administrative levels of communication and faculty communication levels which were based on academic concerns. The highest marks for NOU given by students concerned the opportunity for adult training, flexibility of course selections, and expansion of the knowledge horizon. Most faculty members also appreciated the challenge of distance teaching, however, they felt the lack of a support system in preparation of instruction did impede the effectiveness of the overall program.

### **Summary**

Several recommendations for further research are suggested for the NOU. First, effective media utilization needs to be studied. The study should include the most suitable media for a given content area and type of audiences. Careful measurement of TV effectiveness and cost-effectiveness in various content areas would also help to determine appropriate usage of TV channels to deliver the instruction.

Second, a study of motivation of NOU students and the correlation of the motivation and students' performance, as well as the correlations between face-to-face instructional meeting attendance and students' performance should be implemented. This study would help locate the students' foremost motivation in learning and the influences of face-to-face instruction in distant learning. By doing so, revision of overall coursework design and development in NOU may be made.

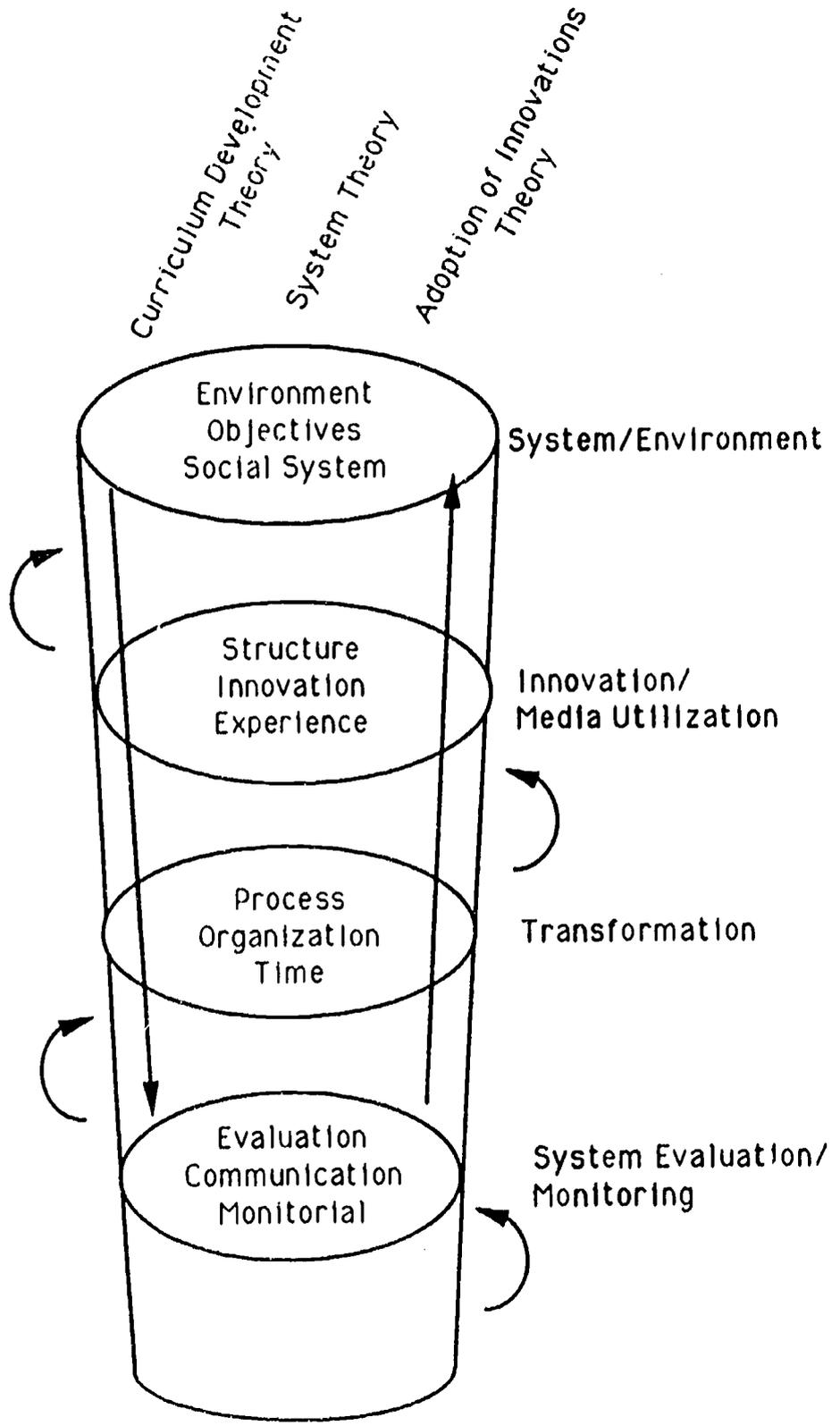
Third, a regression study on factors which correlate with job satisfaction in NOU staff and faculty would be helpful in understanding the program. This study could be followed by a comparison study of job satisfaction between NOU staff, faculty, and conventional university staff and faculty.

Further research utilizing the TPMDE is also recommended. By providing a comprehensive and theoretical view of the NOU in Taiwan, this study served to bridge the gap between a theoretical model and application of a real life program. The results drawn from the findings concluded that distance education is a complex team effort that requires careful planning based on set goals and objectives. Cooperation among components of the distance program is also critical to its effectiveness. Most importantly, the distance system has its own unique social context and may require some adjustments to fit into each individual environment. The adjustments could include delivery format, instructional presentation, instructional design, implementation, and learner characteristics.

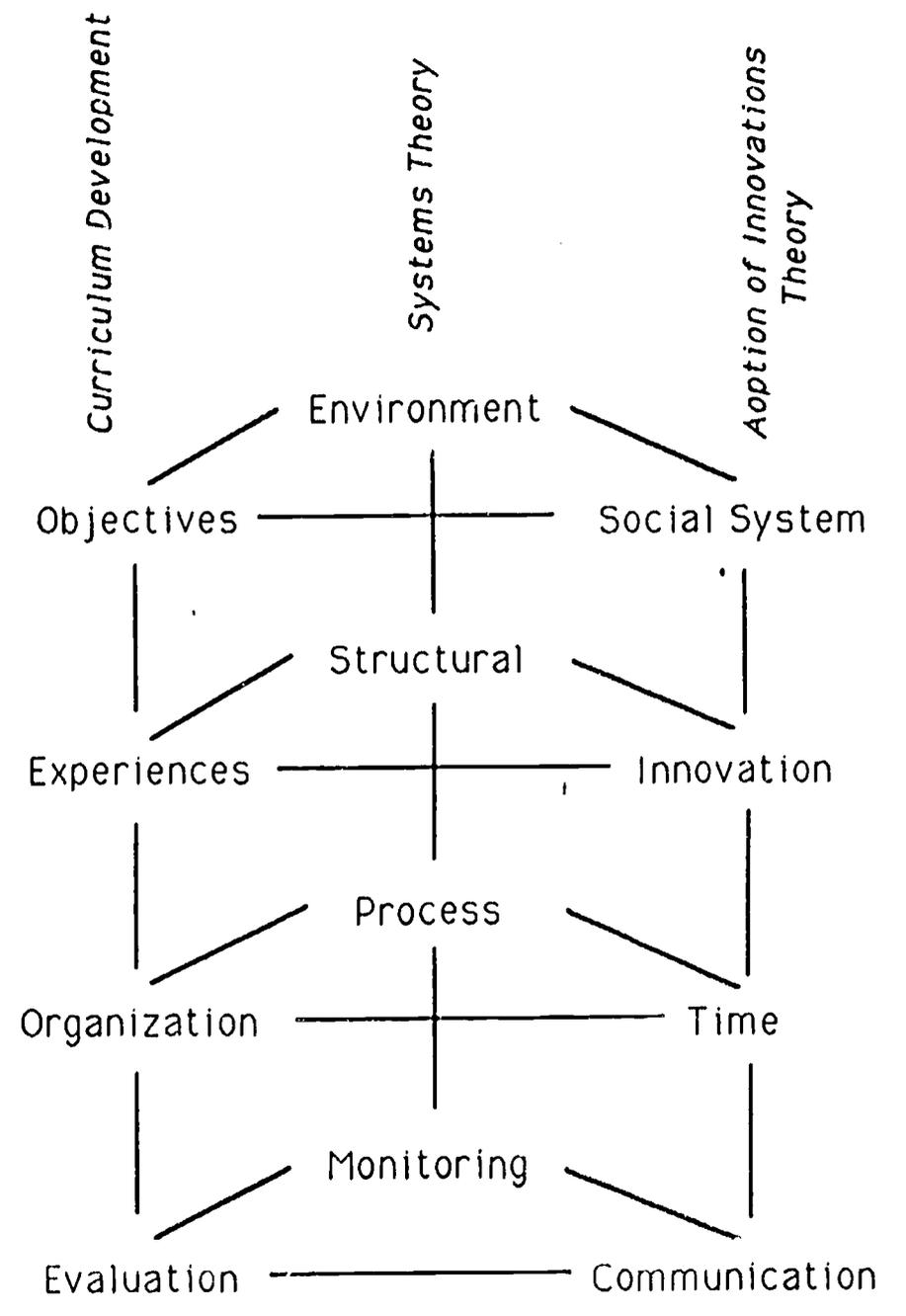
Distance education is seen as a potential "promised land" in Taiwan which will provide equal access and economical higher education to more

people in various levels of education and trainings. It is a means to an end to facilitate learning and human performance, notwithstanding the supporting theories critical of distance education's complex operation. The primary purpose of this study was to link the social phenomena, instructional design efforts, and application into a theoretical explanation of distance education operations in Taiwan.

Globally, distance education will profit from a strong research base undergirded by theoretical knowledge. Only then will researchers be able to "explain and predict" with confidence and credibility.



Glassview of TPMDE



"Original" TPMDE

Figure 1.

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