Testing a Diffusion of Innovations in Education Model (DIEM)

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ABSTRACT

Following is a report on a questionnaire study based on the Diffusion of Innovations in Education Model (DIEM), which synthesizes research on educational innovations. The social system under study included foreign language teacher educators in eleven Southeastern states (N=83). Regional foreign language teacher educators were targeted for gathering data regarding the ACTFL (American Council on the Teaching of Foreign Languages) Proficiency Guidelines (1986), a language teaching innovation. In analyzing results, inferential statistics tested the weight of some of the DIEM's predictions about the nature of educational change. In terms of the model's predictions, state mandates appear to hinder rather than facilitate adoption. However, results support the DIEM claim that innovation knowledge is associated with its adoption. While the DIEM provides conceptual clarity to research on change in educational settings, its usefulness as a way to explain and predict the success or failure of educational innovations in attaining adoption remains to be verified.

Search Keywords: educational innovations, diffusion, implementation, educational change

The educational research literature has underscored the shortcomings of American reform efforts (Fullan, 1993; Hall, 1992; Hansen, 1981; Sarason, 1990). Hall (1992) argues that a *development/implementation* imbalance, the notion that the incessant bombardment of practitioners with new ideas and practices, combined with their sense of low status, is to blame for resistance to change. The current gridlock may be ultimately due to a lack of attention to the practitioners' context (Carlson, 1964, 1968; Hall, 1992; Hansen, 1981; Miles, 1969; Rogers, 1995; Rogers & Jain, 1968; Sarason, 1990). Another factor undermining effective national-scale reform is the increase of state control over teacher education (Darling-Hammond, 1992, with Sclan; Early, 1993).

Diffusion of innovations or "DOI" theory presents a way of explaining and predicting the adoption or rejection of new ideas and practices. Rogers (1995) reports on the potential benefits of a systemic approach educational research for a theory of DOI:

> An exciting potential contribution could be made by the education research tradition, stemming from the fact that organizations are involved, in one way or another, in the adoption of educational inno-vations…organizational structures are inevitably involved in educational adoption decisions. (p. 63)

Though it has precedents in educational research (Carlson, 1965, 1968; Hall, 1992; Huberman, 1983; Miles, 1969; Mort, 1941), DOI, to date has not been employed to evaluate the spread of the many new educational ideas and practices that have disseminated in the wake of the Reform Movement of the 1980s. In testing a Diffusion of Innovations in Education Model (DIEM, Figure 1), the author administered a questionnaire regarding one such innovation, the ACTFL (American Council on the Teaching of Foreign Languages) Proficiency Guidelines (1986), to Southeastern foreign language teacher educators (N=83; 11 states). The DIEM, in response to Rogers' (1995) call for a systemic perspective, considers both individual and socio-organizational variables affecting the impact of educational innovations. The following research question guided

the investigation: How effective is the model developed by the researcher for the purpose of investigating the diffusion of innovations in educational settings as a tool for explaining the diffusion and adoption of the ACTFL Proficiency Guidelines? Results were used to investigate interaction between antecedent (background), diffusion process, and consequences (implementation)-related variables governing the success or failure of educational diffusion campaigns.

DIFFUSION OF EDUCATIONAL INNOVATIONS AND ITS ORIGINS

The earliest trace of a diffusion of innovations research tradition originates in Europe. According to Rogers (1995), French social scientist, Gabriel Tarde (1903), discovered an *s-shaped* curve that governs the rate of *invention* and *imitation* diffusion (p. 40) within a given social context. In American agricultural research, Ryan and Gross (1943, in Rogers, 1995) adopted the model as diffusion of *innovations*. Around the same time, Paul Mort conducted the first study of the diffusion of what he termed educational *adaptations*, in Pennsylvanian school districts, a study that led him to the following conclusion: "the succeeding waves of 'reform' which have come and passed in this century have left discouragingly little mark" (with Cornell, 1941, p. 3). During Mort's time, diffusion research's applications to educational reform efforts had yet to be exploited. As Mort put it: "We have placed our faith in diffusion to a very high extent upon the initiation of individual communities and here given but little attention to the problem of how diffusion comes about" (Mort & Cornell, 1941, p. 25). Among factors influencing educational diffusion, Mort found individual variables like teacher support of innovation and social variables such as tax and population base as facilitative variables. In the 1960s, Carlson (1965) described three barriers to change in the U.S. school system: the lack of a formal change agent figure in public school districts, the lack of a firm knowledge base in education, and the inherently dependent character of public education which diminishes the impetus for change. Miles (1969), taking a less deterministic stance, advanced strategies for creating more innovative school climates through a system of interrelated processes ranging from goal setting to implementing innovations and evaluating effects.

REVIEW OF THE LITERATURE

The goal of this study was to assess the diffusion and adoption of a language educational innovation, the ACTFL Guidelines as reported by Southeastern FL teacher educators. For this purpose, the researcher developed a model for diffusion of educational innovations from insights obtained from a review of related research. This Diffusion of Innovations in Education Model (DIEM) guided the development of a survey tool (Appendix A), which was designed to gauge respondents' perspectives on the diffusion of the guidelines within their area from the decision to adopt to implementation. The following review of the research on educational innovations is therefore organized according to the previously mentioned variable categories around which the model and the questionnaire were constructed: antecedent, diffusion process, and consequences.

Antecedent Variables

The success of a diffusion campaign depends on knowledge of the nature of the innovation as well as of the targeted adopters and their socio-organizational context. Because these are factors preceding the process of disseminating the innovation, they are referred to as antecedent variables. Antecedent variables include: the innovation, the targeted adopters and their socio-organizational contexts, as well as the flow of information about the innovation through various communication structures and channels.

The Innovation

In early applications of DOI research to the field of education, Mort and Cornell (1941), as mentioned earlier, referred to innovations as *adaptations*. This practice appears to have died out in the 60s. Carlson (1968) defines an *innovation* as "a new idea or practice" (p. 10). Carlson further distinguishes between ideas and practices-based innovations, the former being more difficult to implement. Rogers (1995) asserts that hardware innovations, such as computer software or pesticides that are easily and readily employed, have the best chance of success and makes the further distinction between *idea- and principles-based* innovations, the latter being the most difficult to implement.

In this study, the innovation in question is the ACTFL Proficiency Guidelines (1986). Components of this language teaching innovation include the Oral Proficiency Interview (OPI), designed to assess language learner proficiency, as well as proficiency-oriented instruction (POI), an approach to teaching that extrapolates pedagogical values from the tiers of proficiency advanced in the guidelines. Whereas the former, an example of a practice-based innovation, includes concrete support materials and clear parameters, the latter is the classic illustration of a principles-based innovation. Schulz (1986) describes how, at the Language Proficiency Assessment Symposium of 1981, over 70 definitions of proficiency in another language came to light. The debate over how to define this approach (Grosse, 1988; Lange, 1988) has dramatized the difficulty of implementing a teaching innovation based on an elusive principle such as proficiency. Whether or not ACTFL's standardization of the proficiency principle had a substantial impact on the FL profession remains to be fully investigated. The same holds true for proficiency-oriented instruction.

DOI theory has also considered educational innovations in terms of the manner in which they are procured by practitioners, including its price tag (Emrick & Peterson, 1977; Mort, 1941;). The amount of adopter volition attached to the innovation and its adoption is also a significant factor. Whether an innovation is of an optional (individual decision), collective (group decision), or authority (mandated) variety is a factor of particular interest. Generally speaking, mandated decisions are associated with a high rate of diffusion and adoption (Rogers, 1995); however, Fullan (1993) argues to the contrary in the case of educational innovations. In the Southeast, only Florida tried to enforce the guidelines as a way of measuring the proficiency of learners in its schools. Whether this approach had a facilitative or inhibiting effect on the diffusion and adoption of the guidelines remains to be seen.

The individual adopter

To the educational diffusion researcher, an adopting educator is governed by individual personality traits as well as characteristics governing their social and communication behavior. With regard to the former, innovativeness and a favorable attitude toward change (Rogers & Jain, 1968) are factors that facilitate adoption. Favorability may wane to the extent that educators feel overwhelmed by the increasing number of innovations to evaluate (Hall, 1992; Henrichsen, 1989), a reality illustrated by the tendency of educators to refer to new educational innovations as *bandwagons*. Rogers (1995) has identified the following personality traits of earlier adopters as enhancing educational diffusion: extensive formal education and literacy, empathy, open-mindedness, good abstract reasoning, a rational outlook, and intelligence (Rogers, 1995). The adopting educator also has certain inclinations in terms of their social behavior. Educators who favor networking on a broad, cosmopolite scale are viewed as key links in the diffusion and

adoption chain, whereas those who are more conservative, locally-affiliated are not (Rogers, 1995). With regard to educational innovations, Mort (1941), advances three categories of adopting teachers: followers, supporters, and neutrals (p. 29).

Adopting Social Systems and Organizations

In response to the growth of social learning theory, researchers have confronted the *social change (*Rogers, 1995, p. 6) dimension of DOI. Still, according to Rogers (1995), "there have been relatively few studies of how the social or communicative structure affects the diffusion or adoption of innovations in a system" (p. 25). In DOI, social systems are defined as: "...a set of interrelated units that are engaged in joint problem solving to accomplish a common goal" (Rogers, 1995, p. 23) and exist within "the individual's personality, communication behavior, and attitudes" (Rogers & Jain, 1968, p. 8). An impetus behind increased attention to social variables is criticism of an allegedly individualistic emphasis in diffusion survey design that tends to have a *pro-innovation* bias and neglects the question of what an innovation means to a particular social system (Rogers, 1995, p. 100).

Attention to social systemic variables is an important next step in educational diffusion research. As Rogers and Jain (1968) put it, "Such investigation will lead to theoretical understandings about the role of social structure on individual behavior, as well as to practical insight about how to organize education in order to facilitate change" (p. 10). Social systems may vary in openness to change (Rogers, 1995, p. 295). Mort (1941) found higher population bases, concentration of citizens with a higher cultural level, tax leeway, wealth, and urbanness to be important social variables in the diffusion of educational innovations.

Within social systems, organizational factors present an important dimension of inquiry where educational innovations are concerned. Rogers (1995) defines an organization as: "a stable system of individuals who work together to achieve common goals through a hierarchy of ranks and a division of labor" (p. 403). Rogers and Jain (1968) describe the growth of an organizational perspective in diffusion research: "Organizational theory, systems analysis, structural effects, and matrix multiplication," once "beyond the pale," have gained acceptance in DOI research (p. 3).

An important aspect of an educational organization is its "makeup and norms" (Rogers & Jain, 1968, p. 8). For example, schools that are more traditional may differ from non-traditional schools in terms of having a faster rate of innovation diffusion (Henrichsen, 1989; Rogers & Jain, 1968). Leadership style is another relevant variable. Authoritarianism in the decision-making structure is negatively correlated with educational diffusion, whereas a more open leadership style based on the "principle of supportive relationships" (Likert, 1961, p. 103, in Rogers & Jain, 1968, p. 22) contributes to "full and efficient" diffusion (Rogers & Jain, 1968, p. 22). Rogers (1995) and Fullan (1993) both suggest that a more convergent-style of educational leadership, connected across levels, facilitates diffusion. With regard to the potential of administrators in educational organizations to serve effectively as change agents, Carlson (1968) suggests that they are more likely to be gatekeepers while others like Fullan (2002) suggest that being a change agent is fundamental to the job description of principals. The presence of adaptive units in an organization has been also correlated with more efficient DOI (Rogers & Jain, 1968, p. 24). In addition, the size of the educational organization may also be a key factor (Rogers, 1995): "Larger organizations are more innovative" (Rogers, 1995, p. 379). Finally, staff characteristics like morale are important factors in educational diffusion (Carlson, 1969; Emrick & Peterson, 1977; Henrichsen, 1989).

The second language educational literature has underscored the importance of social systemic and organizational variables in the diffusion of language teaching innovations (Henrichsen, 1989; Markee, 1997; Nunan, 1989; White, 1993). Henrichsen's (1989) study of the oral method's diffusion in Japan explains its demise in terms of US external change agents' lack of sensitivity to Japanese social and pedagogical norms. Nunan's (1989, in White, 1993) research on the Australian Adult Migrant Education Program reported that less hierarchical center-periphery models are usually "widely adopted but poorly-implemented," limited by the "relative remoteness of change agents" (White, 1993, p. 252, citing Nunan, 1989). On the contrary, localized models showed greater teacher support and the development of teacher innovativeness.

Communication Channels

Communication channels represent another antecedent factor in DOI. According to Rogers (1995) "there have been relatively few studies of how the social or communicative structure affects the diffusion or adoption of innovations in a system" (p. 25). Communication channels include mass media, interpersonal networks that may be homophilous (identifying with one another) or heterophilous (no social identification), as well as "localite" or "cosmopolite" (Rogers & Jain, 1968, p. 11) networks. Within the communication structure there may also be certain cliques and chains that affect the diffusion rate. Some cliques, for example, act as gatekeepers, restricting the diffusion (Rogers & Jain, 1968, citing Mortimore, 1968). Mort and Cornell (1941) found that administrators restrict the diffusion process, "swayed by political influence" (p. 210). In studying educational diffusion, communication channel considerations have led to the use of sociometric survey items like "Who first told you about...?" or "who convinced you to adopt...?" (Rogers & Jain, 1968, p. 7). Relational analysis clarifies the communication structure within the organization, deepening our understanding, for example, of the role of heterophily and homophily in communicating innovations. Heterophily and homophily respectively denote the extent to which two people communicating about an innovation identify with their interlocutor or perceive them as pertaining to a distant and or irrelevant social group.

Process

Process variables encompass all the activities related to a campaign to promote innovations to adopting systems beginning with increasing adopters' knowledge of the innovation, and ending with the decision to adopt or reject (Rogers, 1995). Time is a major focus during this stage. Carlson (1968) argues that "far more care needs to be exercised in pinpointing the time of adoption if diffusion studies are to provide a firm knowledge base" (p. 9). The diffusion rate is not necessarily a question of when adoption takes place but rather *who* is adopting. The innovativeness of potential adopters—ranging from innovators, to early adopters, to early majority adopter, to late majority adopters, and ending with laggards (1995, see p. 89)—influences the time it takes for an innovation to be adopted. Rate of adoption, as mentioned earlier, is represented in an S-shaped curve. Whereas *innovators* inhabit the low point of the *S* (the early stage of diffusion), *laggards* explain the point at the top of the *S*, as the last few are persuaded to adopt. The leveling phase of the *S* also indicates that an innovation has been institutionalized within the adopting system.

Adopters' perceived characteristics of the innovation

In addition to *who* adopts, the question of adopter perceptions of *what* is adopted is another significant factor that hinders or facilitates the flow of new ideas and practices. According to Rogers (1995), an innovation is "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (p. 11). Important criteria include: relative advantage (over previous practice), compatibility, complexity, trialability, and observability (p. 21). Due, in part, to the increasing number of international diffusion studies (i.e. Henrichsen, 1989), cross-cultural variables have been determined to play a major role in determining an innovation's "compatibility with the values, beliefs, and past experiences of individuals in the social system" (Rogers, 1995, p. 4).

At the University of Texas at Austin, Hall, Rutherford, and George (1977) developed a Concerns-Based Adoption Model, which describes stages of teacher attitudes toward an innovation from finding out about it through extensive use. The first three stages of the CBAM, Awareness, Informational, and Personal, are measured by an instrument called the Stages of Concern (Soc) Questionnaire and follow the adopter side of the knowledge and persuasion process starting from the development of interest to the establishment of a personal assessment of adopting and its ramifications. In measuring process variables related to the decision to adopt, the authors developed the Levels of Use (LoU) inventory (Hord, Rutherford, Huling-Austin, & Hall, 1987). In the initial stages of the Lou, the teacher moves from a lack of interest (Non-Use) to an Orientation stage in which they begin to show interest in knowing more about the innovation. The decision to adopt is denoted by the formation of actual plans to use the innovation (Preparation stage). While the SoC and LoU are well-tested measures, they regard the decision as an individual act. From a DOI perspective, they are incomplete without recognizing the socio-organizational variables that impact educational diffusion.

The change agent

In designing a diffusion campaign, disseminators must consider teacher innovativeness and attitudes toward the innovation, since patterns among teachers' "personality, communication behavior, and attitudes" affect diffusion (Rogers & Jain, 1968, p. 8). If "precise goals of the new program being suggested—that is, have not planned adequately" (p. 111), the status quo will reassert itself. In addition to underscoring the importance of external change agent staff size and experience (Emrick & Peterson, 1977), researchers have advanced ways to effectively manage the dissemination of an innovation. Rather than looking at change agent activity as a single action—an in-service workshop for example—change agents in educational settings should engage their activity as a relationship-building process (Frank, Zhao, & Borman, 2003; Fullan, 2001). According to Huberman (1983), teacher education programs that have engaged in extensive networking and dialogue with area schools regarding the design of innovations that serve a significant need have been more effective in leading educational reform. Successful diffusion depends on the methods employed and the extent to which change agents engage the adopting system's communication structure (Emrick & Peterson, 1977; Rogers, 1995) in promoting awareness. They should heed points of resistance (Rogers, 1995) and foster strong collaborative networks (Huberman, 1983; Hunkins & Ornstein, 1989). Though some argue that *all* education professionals are change agents (Fullan, 1993), DOI asserts that the utilization of opinion leaders and aides within the adopter social system is a more realistic strategy (Rogers, 1995) than depending on the receptivity and cooperation across all of the stakeholders in educational adoption. Because opinion leaders and aides are more

homophilous with adopters than change agents, they are more "able to influence other individuals' attitudes or overt behavior informally in a desired way" (Rogers, 1995, p. 27).

Consequences

After considering the antecedent variables and following the stages of gaining knowledge about the innovation and being persuaded to adopt, DOI research considers the actual use of the innovation and its consequences. It is important to note that, although an initial decision to adopt has been made, that decision is often revisited after it has been tested. Rogers and Jain (1968, p. 25) call for more attention to the effects of adopting and implementing educational innovations: "What improvements in educational productivity or quality result from the adoption of each innovation?" The authors argue, "diffusion research has largely been a tool on the side of sources, not receivers of innovation diffusion" (Rogers & Jain, 1968, p. 1).

To enhance the fidelity of implementation to the intent behind its design, attention has been drawn to the systemic context of adopters. According to Markee (1997), "the likelihood of an innovation being adopted is…contingent on its ecological appropriateness in a specific context of implementation" (p. 84). Warnings about overlooking the implementation factor date back to Mort (1941) who, in studying the diffusion of a number of educational innovations in the state of Pennsylvania, notes: "Communities were rather liberally credited when adaptations of the barest rudiments were in evidence" (p. 29). Carlson (1968) states "school people seem quite prone to modify new practices in the process of adopting them. For example, what is called team teaching in one system is very different from what is called team teaching in another system" (p. 12).

In educational settings, there is a tendency in the professional literature to look at the implementation process in terms of change agent assistance at the implementation stage as well as activities within the adopting or receiver organization. Fidelity of implementation, with all its contingent adaptations, depends in large part on the extent to which the external change agent guides the process vis-à-vis intensive, quality training, materials support, assistance and follow-up (Emrick & Peterson, 1977). Keeping costs down is also a facilitative factor (Emrick & Peterson, 1977). In response to a tendency for DOI research to blame the adopter for lack of adoption, the emphasis has understandably shifted to change agent accountability for active dialogue with the adopter concerning the implementation process (Hunkins & Ornstein, 1989; Leithwood & Montgomery, 1980). Greater variation and re-invention should be tolerated among adopters in using a principles-based innovation (Rogers, 1995, p. 210, 166) as adopters will often struggle with the vagueness and/or abstraction involved in implementing such an innovation.

When meaning disparities develop between change agent and adopter, this often stems from ignorance of indigenous knowledge systems (Rogers, 1995, p. 241). Systemic and individual adopter variables interact to appropriate localized interpretations of the intentions behind the innovation. Rogers and Jain (1968) distinguish between two dimensions of adopter implementation of an innovation: diffusion effects and consequences variables (p. 27). The former refers to intermediate variables related to the receiver's experiences testing out the innovation, whereas the latter refers to ultimate consequences of implementation leading to final confirmation or rejection. According to Rogers (1995), true confirmation occurs when an innovation has been institutionalized to the point that it is no longer construed as a new idea or practice. According to Fullan (2001), adopter commitment is the key adopter variable determining whether or not an innovation survives the implementation process, thus producing lasting changes in educational practices.

Miles (1969) denotes several adopter organizational activities related to planning out implementation: goal setting, forecasting, diagnosing problems, as well as inventing and scanning solutions. The Levels of Use Survey (LoU) (Hord, Rutherford, Huling-Austin, & Hall, 1987) refers to this planning phase as the Preparation stage. During the subsequent early stages of testing out an innovation, vestiges of preliminary trials, called diffusion effects, may be well planned-for, while others manifest themselves in surprising ways in the form of secondary diffusion (Emrick & Peterson, 1977), also referred to as unanticipated effects (Rogers, 1995). In terms of Hall et al's Stages of (Adopter) Concerns, this phenomenon relates to denotes the fourth ("Management") stage in which the adopter moves beyond considering how implementation will affect them to using the innovation with their students. The LoU indicators applicable to this stage include the Mechanical and Routine stages, in which the teacher makes accommodations for the innovation and establishes a usage pattern.

A promising new perspective on implementation comes from recent investigations employing a social critical lens. Frank, Zhao, and Borman (2003) argue that implementation in educational organizations is an informal process driven by social relationships. Rather than looking at implementation as a decision wholly dependent on teacher cognition or governed by linear, managerial plans, the authors suggest that implementation is sustained or discarded largely due to collegial pressure or encouragement. Their study of social capital within an educational organization suggests that change agents should facilitate implementation indirectly by setting up contexts for informal staff communication about using the innovation.

There is some variation in evaluating the consequences of implementing of an innovation once an adopter has tried it out. In the program innovation literature, Leithwood and Montgomery (1980) argue that implementation is a dialogic process that necessitates careful collaboration between the external and receiver organizations and that "the nature and degree of implementation of program innovations" (p 193) must be established from the outset. On the contrary, Hall, George, and Rutherford's (1977) denote this "Collaboration" stage of concern for adopters as a later phase of innovation use that follows a "Consequences" stage in which the teacher has had a chance to evaluate the innovation's effect on students. Thus, while collaboration appears to be a good thing in the educational diffusion literature, it is not clear exactly when and to what extent change agent-adopter collaboration needs to take place. In the final stage of the implementation process, the adopter assesses the overall consequences of using the innovation. In order for an innovation to be successfully implemented, it must find confirmation in its integration into the values and practices of the adopting entity, be it an individual teacher or an entire school district. In assessing the long-term consequences of implementing an innovation, adopters weigh three continua: desirable/undesirable; direct/indirect; anticipated/unanticipated (Rogers, 1995, p. 30-31). According to Leithwood and Montgomery (1980), there are essentially three procedures to follow in assessing implementation: reviewing the original policy, reviewing the actual practice, and then identifying discrepancies.

Processes related to the consequences of adoption at its most mature stages include: clarifying, and routinizing/maintaining (Miles, 1969; Rogers, 1995, p. 403;). The success of such self-sustaining activities eventually institutionalize the innovation into the status quo (Rogers, 1995). Failure conversely leads to discontinuance or tabling (Rogers & Shoemaker, 1971). Within certain parameters, a certain amount of redefining/restructuring may take place in lieu of assessing the consequences of implementation. In Hall, Geoge, and Rutherford's (1977), consequences-related variables are represented by the final three stages of adopter concern: a Consequences stage

involving reflection and refining; Collaboration, which focuses on integrating one's implementation with colleagues; and finally, Refocusing, in which teachers carefully re-shape the innovation to better address their localized needs. With regard to he LoU (Hord, Rutherford, Huling-Austin, & Hall, 1987), the teacher moves from developing a routine with the innovation (Routine stage) to making refinements in order to optimize outcomes (Refinement stage). As the adopter matures in mastery, use involves more integration with colleagues' efforts (Integrative stage) and more evolved, carefully adapted versions of the innovation (Renewal).

CONSTRUCTING THE MODEL

After an extensive review of the research literature on educational innovation, the DIEM was constructed based on four criteria advanced by Henrichsen (1989) in his case study on the diffusion of the Oral Approach in Japanese English language teaching: a *coherent framework*, *abstractness, completeness, and* predictability (p. 95). In order to be a complete account of educational innovation diffusion, Rogers' (1995) and Rogers and Jain's (1968) elements of diffusion (the innovation, communication channels, time, social system, diffusion effects & consequences) needed to be adapted in a way that reflects a full account of how diffusion works in educational settings. In particular, there is increased focus on two elements in particular, time and implementation. With regard to the time element of innovation diffusion, external change agent activities and strategies in designing effective promotional campaigns is amplified since it appears to have a significant effect on the success or failure of educational innovations (Emrick & Peterson, 1977; Fullan, 1993, 2001, Hall, 1992; Henrichsen, 1989; Huberman, 1983; Hunkins & Ornstein, 1989). Examples of external change agents in educational settings tend to be national level academic area professional organizations or policy makers. There is also a closer focus on external change agent and adopter side activity related to implementing the innovation (Carlson, 1964; Emrick & Peterson, 1977; Frank, Zhao, & Borman, 2003; Hord, Rutherford, Huling-Austin, & Hall, 1987, Leithwood & Montgomery, 1980; Mort, 1941; Rogers, 1995) since this has been a persistent problem area in the arena of educational change, as well as measuring the extent to which adoption of an educational innovation may be confirmed as status quo in a particular socio-organizational context (Emrick & Peterson, 1977; Henrichsen, 1989; Hord, Rutherford, Huling-Austin, & Hall, 1987; Rogers, 1995, R&S, 1971).

According to Henrichsen (1989), a true model considers "not only the forces that affect the change process but also the process itself" (p. 69). In order to make the model more cohesive and coherent, the researcher has preserved the Rogers' (1995) model shares some common features with Henrichsen's hybrid model (1989) and the cross-cultural diffusion model it is based on (Rogers & Shoemaker, 1971), in particular, the delineation of antecedent, process, and consequences-related variables. Educational innovations, as is the case with innovations in general, do appear to be governed by a pre-existing context for adoption (antecedent variables). This context is governed by inherent characteristics of the innovation (Fullan, 1993; Rogers, 1995) and the social (Emrick & Peterson, 1977; Rogers, 1995; Rogers & Jain, 1968; Mort, 1941) organizational (Carlson, 1965; Emrick & Peterson, 1977; Fullan, 1993; Henrichsen, 1989; Huberman, 1983; Rogers, 1995; Rogers & Jain, 1968):and communication (Mortimore, 1969; Rogers, 1995; Rogers & Jain, 1968) structures in which teachers (Rogers & Jain, 1968; Hall, 1992; Mort, 1941; Huberman, 1983) would use the innovation. With regard to diffusion process variables, the activity of an external change agent in promoting adoption of the innovation (Emrick & Peterson, 1977; Fullan, 1993, 2001, Henrichsen, 1989; Huberman, 1983; Hunkins & Ornstein, 1989; Rogers, 1995) and the extent to which teachers

are open to it (Hall, Rogers, 1995). Finally, the model considers the consequences of implementing the educational innovation and appraisal of its long-term value as a pedagogical tool. Within these three dimensions, there may inevitably be overlap, for example between the adoption decision-making timeline and implementation factors (cited in the previous paragraph). In some cases, a given variable might have weight at more than just one stage or cross into another category. For instance, an innovation, may have some pre-existing, inherent characteristics (antecedent variables). However, as established earlier in this article, what happens to an innovation as it begins to be defined by the adopter (process stage) and actually used (consequences), appears to create an often distinct entity altogether.

In terms of the tension between abstractness and completeness, relevant features culled from a review of the literature were carefully sorted according to their associated element of diffusion and the stage of the process they are associated with. The DIEM's greatest advantage for representing diffusion in educational contexts lies in its depth of consideration of organizational variables, as well as its increased attention to consequences, a step first taken by Henrichsen (1989). Such considerations are not guaranteed their deserved depth of treatment in any single diffusion model the researcher has investigated. The DIEM takes the central elements of educational diffusion through a sequential framework (summarized in Figure 2). Extensive empirical testing of the model will hopefully uncover some new connections between the variables under study.

METHODOLOGY

A census questionnaire entitled The Foreign Language Teacher Educator Survey (Appendix A) was developed based on variables of interest in the DIEM (Appendix B) and administered to the known population of Southeastern US foreign language teacher educators. When employed judiciously, "survey methods...are often essential to gathering large-scale amounts of data as a basis for generalization" (Rogers & Jain, 1968, p. 4). Researchers may also feel compelled to conduct first hand observations of the educational system under study, interview members of the system, or review the system's documents (Emrick and Peterson, 1977). This is particularly important in measuring the consequences of adopting and implementing an innovation on the social system, a process Rogers (1995) relegates to more in-depth, case study methods, arguing that one-shot surveys will not suffice. It is hoped that the focus on one regional social system (the Southeast) and the inclusion of opportunities for FL teacher educators to comment on the impact of the ACTFL guidelines counteract this limitation of the questionnaire method.

The researcher focused on the following research question: *How effective is the DIEM in explaining the diffusion and adoption of the ACTFL Proficiency Guidelines*? This question was divided, into seven sub questions:

- *RQ3A:* As a principles-based innovation, do the guidelines yield, as predicted by the model, low scores on scale item measurements of the following perceived characteristics: relative advantage, compatibility, trialability, observability and high ratings for complexity? With regard to the issue of complexity, will adoption, measured by integration in the methods course and other aspects of FL teacher education, as well as definitions of proficiency-oriented instruction, be idiosyncratic?
- *RQ3B:* Will respondents from states which have incorporated the proficiency guidelines as part of their educational policy (Louisiana, North Carolina, Florida) or curriculum framework

(Georgia and South Carolina) or both (Florida) be more likely to adopt the Guidelines and verify their acceptance and institutionalization in their area?
- *RQ3C:* How will knowledge of the guidelines and other ACTFL innovations correlate with adoption and integration by foreign language teacher educators?
- *RQ3D:* Are professional factors such as: length of tenure as teacher educator, overall experience in FL teaching, and level of involvement in FL professional organizations positively related to the guidelines' adoption and implementation?
- *RQ3E:* As population (urbanization) increases, does the likelihood of adoption and implementation of the guidelines also increase?
- *RQ3F:* Is there a relationship between the innovativeness and openness to change of the socio-organizational context of adopters and variables of adoption and implementation?
- *RQ3G:* Is adoption and implementation of the guidelines significantly higher and earlier among FL teacher educators housed in modern language departments than their counterparts in colleges of education, as suggested in the literature

The population under study is the entire known population of Southeastern foreign language teacher educators (N=83), defined as a full-time college faculty responsible for instructing the course on teaching FLs, in eleven regional states (see Table 1). Though this was a parametric study, the small size of the population necessitated the use of more rigorous, non-parametric statistics. Thus, in interpreting the results, the researcher accepted increased risk of a Type I error (rejecting the alternative hypothesis of significance when it was actually correct). A total of 60 returns were received (72.3% response rate). The return rate for each state was between 50% and 100%, except for Kentucky (37.5%); therefore, results may not necessarily speak for this state. The next section focuses on questionnaire items designed to test the DIEM's validity.

RESULTS AND DISCUSSION

RQ3A: As a principles-based innovation, do the guidelines yield, as predicted by the model, low scores on scale item measurements of the following perceived characteristics: relative advantage, compatibility, trialability, observability and high ratings for complexity?

As indicated in Table Two, on a scale of 1-4, with a one indicating the highest degree of complexity and 4, the lowest, respondents rated Proficiency-Oriented Instruction 2.18, overall, suggesting that respondents view this innovation as somewhat complex. However, two write-in comments suggest that some respondents were not sure whether a "1" represented extreme complexity, the intended direction, or rather that such a score would indicate favorability in that area, thus indicating a lack of complexity. The same problem might also undermine the ratings of "Cost of implementation", which was rated the lowest (2.55), considering the high standard deviation (σ=1.13). However, it is conceivable that one could implement proficiency-oriented teaching without investing heavily in training and materials. The guidelines were rated fairly low with regard to the criterion of "Compatibility with FL instruction in my area." (x=2.31), which lends support to the findings of Feyten and Grosse (1991). With regard to the other categories, Proficiency-Oriented Instruction was rated rather favorably with regard to "Relative advantage over traditional instruction" (x=1.53), Flexibility (x=1.94), and "Observability of the results" (x=1.98).

...also, will adoption, measured by integration in the methods course and other aspects of FL teacher education, as well as definitions of proficiency-oriented instruction, be idiosyncratic?

With respect to responses to the question, "How would you define proficiency-oriented instruction?", 19 respondents constructed their definition around the guidelines as a developmental framework for POI, an approach to assessment and instruction that factors in what students are capable of at a given level. Two respondents within this developmental framework-based definition emphasized that the guidelines are experientially, rather than theoretically-derived (Omaggio, 1983). Among respondents to this question, 17 stressed POI as guided by the goal of communicative competence (ability), defined often as *using or doing* with the language. Other definitions stressed POI as communicative, foreign language-immersed, or encouraging student communication in the foreign language (7). Six respondents indicated that they thought of POI as less explicitly focused on the grammatical structures of the target language (6). The rest of the definitions included elements of the following: focus on the modalities (4), focus on (real life) contexts, themes, or functions (4), the use of authentic materials (3), some emphasis on structural accuracy (2), and finally, the goal of FL proficiency (2). The criteria cited by FL teacher educators participating in this survey are either inherent aspects of the guidelines (i.e. the emphasis on a developmental framework, modalities) or from Omaggio Hadley's (1983, 1984, 1986) and Lange's (1988) writings on the pedagogical implications of the guidelines (i.e. emphasis on real / contextual communication, authentic materials). Thus, these would appear to be perfectly valid extrapolations of the original message about proficiency-oriented instruction that are readily available in the professional literature. Overall, FL teacher educators in the Southeast voice a definition of POI that is consonant with the intentions of its originators (Leithwood & Montgomery, 1980) within the guidelines' given parameters and within the related literature. Therefore, it appears that the tendency for principles-based innovations to be randomly implemented does not hold true for the case of Proficiency-Oriented Instruction, according to FL teacher educators in the Southeast.

RQ3B: Will respondents from states which have incorporated the Proficiency Guidelines as part of their educational policy (Louisiana, North Carolina, Florida) or curriculum framework (Georgia) or both (Florida) be more likely to adopt the guidelines and report that their acceptance and institutionalization in their area?

Analysis based on this question began with an Independent Samples t-test (Table 3). It was determined that if Florida, the only state where the guidelines had been mandated as a curriculum framework, did not show many significantly different means on measures of the guidelines' impact than those of the other regional states, then further comparisons would not be necessary. Two impact variables, the local foreign language supervisor and K-12 foreign language teachers, revealed significantly lower measures of the guidelines' impact. Contrary to Rogers' (1995) assertion that innovations backed by policy mandates are expected to show a higher rate of adoption, these results show exactly the opposite, suggesting that curricular mandates such as Florida's (derived from the guidelines) may have had a negative effect on the impact of the guidelines on K-12 foreign language education in that state (Fullan, 1993). However, though the comparison of means did pass the Equal Variances Test, it is difficult to say that five people (out of a possible total of seven) speak for the impact of the guidelines on K-12 education in the entire state of Florida.

RQ3C: How will knowledge of the guidelines and other ACTFL innovations correlate with adoption and integration by FL teacher educators?

Because the *Somewhat familiar with…* and *Not familiar with…* categories were seldom checked, these categories were conflated for data analysis purposes into two categories: *Very Familiar with…*

and Somewhat to Not Familiar with… Only responses regarding familiarity with the ACTFL guidelines were used for the test. In Chi Square analyses, familiarity was cross tabulated with survey items #16 and #18-23, which include a series of dual response items asking the following questions:

- Have you implemented the ACTFL Proficiency Guidelines?
- Have you integrated the Proficiency Guidelines into your FL methods course?
- Have you played a role in promoting the ACTFL Proficiency Guidelines?
- Have you received training in use of the ACTFL Oral Proficiency Interview?
- Have you obtained official ACTFL OPI interviewer / rater status?
- Does your FLTE program test the oral proficiency of its candidates?
- Does your university/college's language department conduct exit OPIs for major? and finally,
- Does your FLTE program encourage teaching interns to continue to develop their proficiency?

The first three questions produced significant differences when paired with those who were very familiar with the guidelines (Appendix C). Though several rather low cell counts were noted, results suggest that those who were very familiar with the guidelines were more likely to be among those who claim to have promoted, implemented or integrated them into their FL methods course. This is in contrast to Wolf and Riordan's (1991) finding that suggested a negative relationship between knowledge and the guidelines' implementation.

RQ3D: Are professional factors such as: length of tenure as teacher educator, overall experience in FL teaching, and level of involvement in FL professional organizations positively related to the guidelines' adoption and implementation?

Because the intervals used for grouping lengths of experience in foreign language teacher education (FLTE) and foreign language education (FLED) contained groups that were too small for statistical comparison by range, a median split was conducted to bisect the FLTE group into 11-15 years of experience and below and 16-20 years of experience and above. Likewise, the FLED group was divided into 21-25 years of experience and below and 26-30 years of experience and above. These groups were then compared using a Chi Square test along the same items for RQ3C. Results (Table 4) show significant difference between expected and observed results, suggesting that FL teacher educators with the lesser overall amount of experience were more likely to be among those testing the proficiency levels of candidates. Because professional organizational activity was consistently strong among respondents, no meaningful statistical analysis could be conducted in that category. Because there was a nearly perfectly balanced representation of FL teacher educators with language and or literature doctorates and those with doctorates in education, an additional Chi Square analysis was calculated to see if such a professional background factor might be associated with the adoption and implementation of the guidelines for FL teacher educators. Results showed a difference just short of significant (.002 points) with regard to promotion of the guidelines. A significant difference would have suggested that those with an education degree were less likely to be among those promoting the guidelines. Due to the number and specificity of these factors, these results are inconclusive.

RQ3E: As population (urbanization) increases, does the likelihood of adoption and implementation of the guidelines also increase?

Because very few respondents indicated a rural or suburban work context, the categories of location were collapsed into *City over 100,000* and the rest of the respondents who reported either *City of under 100,000,* suburban, or rural. Respondents who checked off more than one response to this item were eliminated from this analysis, leaving two equal groups of 26. In cross-tabulating location and items related to adoption and implementation, no significant differences were found between the observed and expected results. A t-test of the impact means (#27-28) of the two population groups likewise showed no significant factor for population grouping. This suggests that urbanization (Mort, 1941; Rogers, 1995) may be overrated as a variable for this particular category of adopter and educational innovation. However, it is also possible that a scale with greater sensitivity to population variations might have produced different results.

RQ3F: Is there *a relationship between the innovativeness and openness to change of the socio-organizational* context *of adopters and variables of adoption and implementation?*

The ANOVA (Analysis of Variance) statistical operation was used to compare individual means of *support of innovation and openness to change* ratings with ratings of adoption and implementation (Appendix D). Respondents who reported having promoted the guidelines rated their support of innovations and openness to change significantly higher than those who did not ($x = 1.04$ vs. $x = 1.50$); they also rated their communities' support of innovations and openness to change significantly lower than those who had not promoted the guidelines ($x = 2.72$ to $x = 1.87$). Respondents who indicated that they had implemented the guidelines rated their support of innovations and acceptance of change significantly higher ($x =$ all "1s") than those who had not ($x = 1.66$).

Respondents who reported having received OPI training rated their respective State Department of Education significantly lower on the support of innovation and openness to change scale than counterparts who did not ($x = 2.58$ vs. $x = 1.90$). Among those respondents who indicated having achieved official OPI rater / interviewer certification status, these FL teacher educators tended to rate superintendents significantly higher ($x = 1.5$ vs. $x = 2.55$) and mentor teachers significantly lower ($x = 2.75$ vs. $x = 1.97$) on the support of innovations and openness to change scale than counterparts who had not earned OPI certification. Respondents who indicated that they encourage FL teacher education candidates to continue to develop their proficiency rated departmental colleagues higher on the scale of support of innovations and openness to change than colleagues who indicated that they did not ($x = .161$ vs. 2.40). Finally, respondents who indicated OPI testing of FL majors were more likely to rate their superintendents higher than those who indicated that they did not ($x = 2.07$ vs. 2.72).

Taken discretely, it is difficult to construct a meaningful interpretation of results of these tests. Given that there were a total of 11 variables along the scale questions about support of innovations and openness to change, and six variables to indicate adoption and implementation of the guidelines, it is not surprising that so many would show significant relationships. However, there is a pattern in the responses that indicates that adoption of the guidelines by FL teacher educators may be associated with a tendency to regard more localite groups (community, state departments of education, and mentor teachers) as less supportive of innovations and less open to change than non-adopting colleagues. Undermining this potential relationship is the fact that two of the adoption and implementation groups—those who obtained rater status and those who reported conducting exit OPIs for FL majors—reported higher ratings for their superintendents' support of

innovation and openness to change than counterparts who had not implemented those derivatives of the guidelines innovation. Therefore, these results should be interpreted with caution.

RQ3G: Is *adoption and implementation of the guidelines significantly higher and earlier among FL teacher educators housed in modern language departments than their counterparts in colleges of education, as suggested in the literature?*

Respondents hailing from colleges or departments of education and those from language departments were selected for a Chi Square analysis. No significant differences were found between these groups when connected with responses to survey items related to adoption and implementation. Due to the fact that many respondents reported preparation in colleges of education and work in language departments and vice-versa, it was determined that an analysis of the time of implementation along the work context factor would not yield meaningful results.

CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

It has been said that adaptation is an inherent characteristic of the way new ideas and practices are communicated in the field of education (Hall, George, & Rutherford, 1977; Mort, 1941). In testing the Diffusion of Innovations in Education Model, the researcher is therefore not surprised to find areas where conceptual clarity still needs to be realized. There are two ways this can happen. First, the synthesis of studies is limited by the lack of integration within research on educational innovations. Creating points of connection between researchers spanning a broad geographic and temporal representation presents a significant challenge, somewhat like herding cats. Distinguishing stages of implementation between diffusion effects and consequences, for example, is clearly difficult in educational settings. Second, there is the issue of designing research instruments for use with educators that toe the line between fidelity to theoretical constructs of interest to researchers and a lexicon that adopting educators can connect with. For example, there was evidence of some confusion as to how to treat Likert scale items measuring 1-4, lowest to highest ratings when only one of five characteristics of an innovation under study, complexity, may be perceived as a negative trait.

In spite of its limitations, results of the first questionnaire derived from the Diffusion of Innovations in Education Model offers some insights into which factors may help or hinder educational diffusion. For example, a policy derivative of the innovation under study scored low on measures of its impact on teaching within the state where the innovation was mandated. Population base and innovativeness of the social context, once thought to be major factors in educational diffusion and adoption may turn out to not be so crucial. Also, in spite of early warnings that familiarity with the innovation under analysis appeared to negatively associate with adoption and implementation, the long-held DOI assertion to the contrary was borne out. Finally, there was a tendency for users and promoters of the guidelines to give low ratings to area education personnel, with the exception of superintendents, in the area of innovativeness and openness to change. Though these results are limited in their generalizability, they suggest that the nature of educational change is highly complex. While DOI provides a useful framework for conceptual clarity in designing and measuring the impact of educational innovations, it is clear that there are dynamic socio-organizational forces that are particular to the field of education- a finding that needs further verification in order to merit a significant contribution to a general theory of DOI. Such forces may not be unique to educational settings; they may have implications for any diffusion campaign that occurs on an inter-organizational level.

With regard to future questionnaire studies based on the DIEM, clearly a variety of innovations across a diversity of adopter settings need to be investigated in order to confirm or disprove the relative importance of the factors outlined in the model across a broader range of educational diffusion contexts. Will, for example, the same results hold true across educational innovations in a variety of academic settings? Also, to what extent is this study describing a phenomenon particular to schooling in the United States. In fact, the DIEM itself requires extensive review and reliability and validity testing by the educational research community.

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Mark Warford, After receiving his Ph.D. from The University of Tennessee, Dr. Warford's research agenda has centered on two areas of educational research: educational innovations and teacher development. Currently, he is integrating Sociocultural Theory as a tool for advancing theory and practice in both of the aforementioned fields.

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Table 1: Comparison of Survey Return Rate State-by-State

State	Possible # of returns	Actual # of returns	Response rate %
Alabama	6	5	83.33%
Arkansas	4	4	100%
Florida	7	5	62.5%
Georgia	9	8	88.88%
Kentucky	8	3	42.85%
Louisiana	6	3	50%
Mississippi	2	2	100%
North Carolina	12	9	75%
South Carolina	6	6	100%
Tennessee	9	7	77.77%
Virginia	14	8	57.14%
Total = 11	Total = 83	Total = 60	Avg. = 72.3%

Table 2: Respondents' Ratings of Proficiency-Oriented Instruction

Innovation characteristic:	N	Mean	Std. Dev.
Cost of implementation	44	2.5455	1.13
Compatibility with FL instruction in my local area	52	2.3077	.7286
Complexity	50	2.18	.8254
Trialability (how easy is it to try out?)	51	2.1373	..6639
Observability of results	51	1.9804	.7613
Flexibility	52	1.9423	.8498
Relative advantage over traditional FL instruction	53	1.5283	.6681

(1=highest; 4=lowest rating in given category)

Table 3: Results of t-test for Independent Samples Comparing Florida with Other States' Average Scale Measures of the ACTFL Guidelines' Impact (Equal variances assumed)

Impact variable:	t	df	Sig. (2-tailed)	Mean Difference
Impact of ACTFL Guidelines on local FL supervisor	-2.146	39	.038	-.9833
Impact of ACTFL Guidelines on local K-12 FL teachers	-2.202	47	.033	-.8500

Table 4: Results of Chi Square Test of Variables of Adoption and Implementation vs. Professional Background Factors.

Grouping by Experience in FLTE			Does your FLTE program test the oral proficiency of its candidates?		Total
			Yes	No	
1.00		Count	9	15	24
		Expected Count	12.7	11.3	24.0
2.00		Count	20	11	31
		Expected Count	16.3	14.7	31.0
Total		Count	29	26	55
		Expected Count	29.0	26.0	55.0

Note: 1.00= FL teacher educators with 16 or more years of FLTE experience; 2.00= FL teacher educators with less than 16 years of FLTE experience

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.961[b]	1	.047		
Continuity Correction[a]	2.951	1	.086		
Likelihood Ratio	4.003	1	.045		
Fisher's Exact Test				.060	.043
Linear-by-Linear Association	3.889	1	.049		
N of Valid Cases	55				

a. Computed only for a 2x2 table
b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.35.

ANTECEDENT	PROCESS	CONSEQUENCES
Innovation type (Fullan, '93; Rogers): In order of diffusion, adoption potential: Hardware-, practice-, ideas-, principles-based **Volitional variables:** Optional (individual) vs. collective, policy authority / policy varieties, i.e. mandates (+/-)	**I. *KNOWLEDGE*** **External change agent strategy** (Fullan '93, '01, Henrichsen, Huberman, Hunkins & Ornstein, NDN, Rogers):	**IV. *IMPLEMENTATION*** **External change agent** (NDN): Assistance & follow-up, materials support; quantity, quality of training (+); cost (-), consideration of social capital (FZB)..
Individual adopter variables: *Personality* (R&J, Hall, Mort, Huberman): Innovativeness, openness to change, formal education, literacy, empathy, abstract reasoning, a rational outlook, intelligence (+) *Socia/ communication behavior: wide* scope of professional networking (+); Categories: followers, supporters, neutrals	**Organizational factors-** Staff size, experience, support (absence of gate-keeper resistance) (+) **Relationship building-** Involvement, coordination of networks with school leadership, opinion leaders, aides	**Adopter side:** *Fidelity of use* (Carlson, '65, Fullan, '01; HRHAH, L&M, Mort, NDN, Rogers) *Planning* (+) (Miles, 1969): setting goals, forecasting, diagnosing, inventing, scanning solutions LoU: Prepration stage *Diffusion effects:* secondary, anticipated / unanticipated, direct / indirect.
Communication structure (Mortimore, Rogers, R&J): *Channels:* Forrmal / informal; localite vs. cosmopolite, mass media; hetero-/ homo-philous; Gate keeping cliques (-)	Outreach, training activity to promote awareness of need for innovation.	**LoU:** Mechanical stage **CBAM:** Management stage **Social capital** What social pressures, supports sustain implementation? (FZB)
Adopter organization (Carlson '65, Fullan, '93; Henrichsen, Huberman, NDN, Rogers, R&J): Connectedness to larger context (+) Balance of upward/downward (+) R&D, other innovation support (+) Openness of leadership (+) Openness to, need for innovation (+) Accounting for traditional pedagogical practices (+) Staff morale (+) Size (+)	**II. *PERSUASION*** **Innovation perceptions** (Rogers): Relative advantage (+) Compatibility (+) Observability (+) Trialability (+) Complexity (-) Flexibility (+) Cost (-) **Relation to LoU (HRHA):** Non-use - Orientation Relation to CBAM: Awareness, Information, Personal stages	**V. *CONFIRMATION*** Consequences of implementation (Henrichsen; HRHAH, NDN; Rogers, R&S): **Success, Valuation (finalized adoption, institutionalization)-** adoption leads to confirmation, continuance, integration, routinization, maintenance LoU: Routine, Refinement, Integration, Renewal stages **CBAM:** Consequence, Collaboration, Re-focusing stages
Adopter social system (Rogers, R&J, NDN, Mort): Openness to change (+); Wealth, tax / pop. base (+); Cosmopoliteness (+)	**III. *DECISION*** (Rogers)- **ADOPT / REJECT (INITIAL)**	**Failure (final rejection)-** final decision to reject following trial, discontinuance, tabling

Legend:
CBAM refers to Concerns-Based Adoption Model (Hall, Rutherford, & George, 1977)
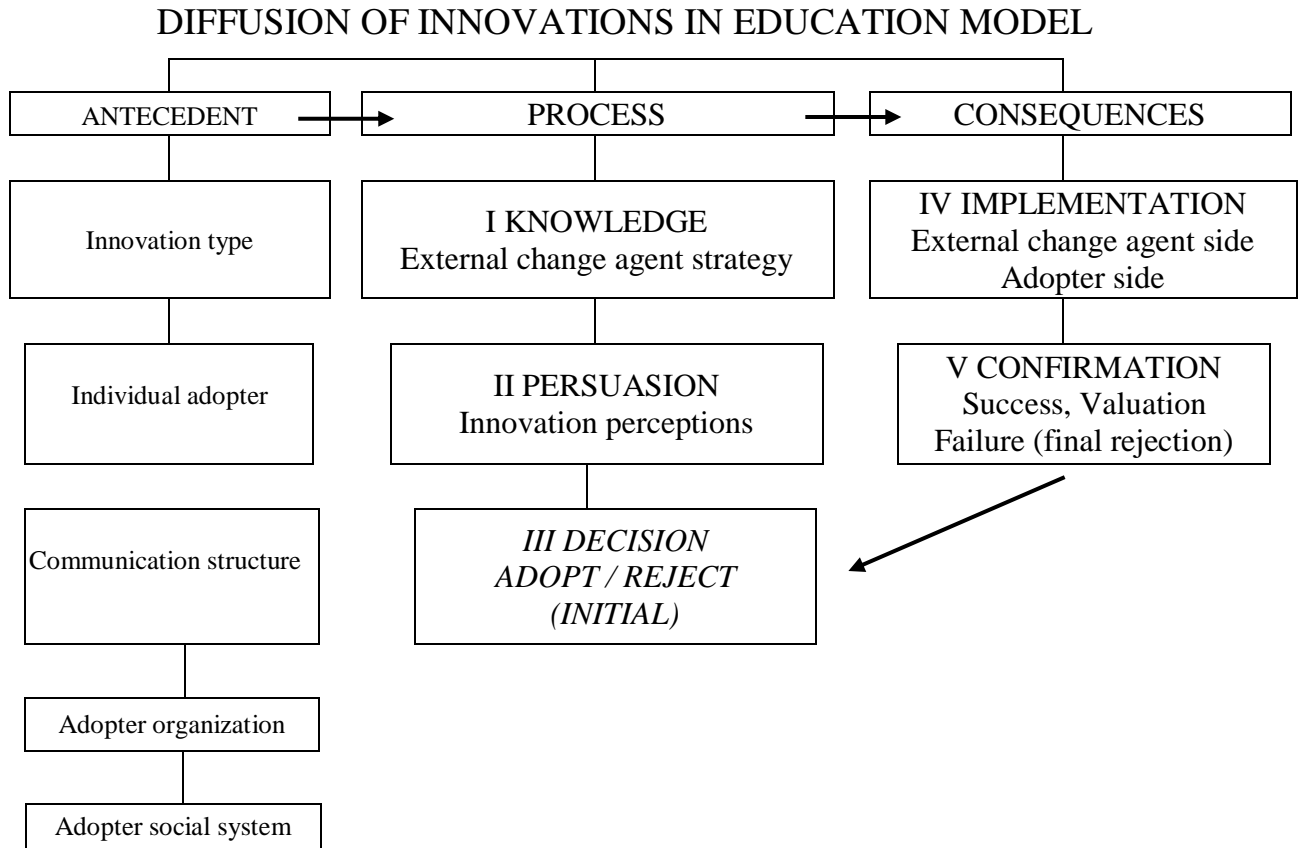**FZB** refers to Frank Zhao, and Borman (in-press)
HRHAH refers to Hord, Rutherford, Huling-Austin, and Hall (1987)
LoU refers to "Levels of Use" scale (Hord, Rutherford, Huling-Austin, and Hall (1987)
NDN refers to National Diffusion Network (Emrick & Peterson, 1977)
R&J refers to Rogers and Jain (1968)

Figure 1: THE DIFFUSION OF INNOVATIONS IN EDUCATION MODEL

DIFFUSION OF INNOVATIONS IN EDUCATION MODEL

ANTECEDENT	→	PROCESS	→	CONSEQUENCES

Innovation type	I KNOWLEDGE External change agent strategy	IV IMPLEMENTATION External change agent side Adopter side
Individual adopter	II PERSUASION Innovation perceptions	V CONFIRMATION Success, Valuation Failure (final rejection)
Communication structure	*III DECISION* *ADOPT / REJECT* *(INITIAL)*	
Adopter organization		
Adopter social system		

Or "DIEHM"- adapted from Henrichsen, 1989; Rogers & Shoemaker, 1971). ***Legend:*** *(+) factors favorable to process/consequences; (-).*

Figure 2: THE DIFFUSION OF INNOVATIONS IN EDUCATION MODE

- essential elements

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Appendix A: Foreign Language Teacher Educator Survey

Survey of Foreign Language Teacher Educators

➡

The following survey is divided into three sections. The first section asks for some background information. The second section focuses on what you might know about the process of disseminating the ACTFL Proficiency Guidelines. The final section asks information regarding their adoption and implementation.

I.   BACKGROUND

1.   Approximately how long have you served as a foreign language teacher educator?

___36 years/more ___31-35 ___26-30 ___21-25 ___16-20 ___11-15 ___6-10 ___5/less

2.   For approximately how long have you served in the foreign language profession, in general?

___36 years/more ___ 31-35 ___26-30 ___21-25 ___16-20 ___11-15 ___6-10 ___5/less

3.   Please indicate the degree(s) you have obtained since college:

___Master of Arts in: _____

___Master of Science in: _____

___Specialist Degree in: _____

___Ph.D. in: _____

___Ed.D. in: _____

___Other: _____

4.   Please check the best description of your work context:

___Dept. of Modern Lang.   ___College/Dept. of Ed.

___Other (Please describe):_____

5.   The area where I teach can best be described as... (please check only one)

___ a city of over 100,000.   ___ a city under 100,000.   ___suburban.   ___ rural.

6. Please rank order the ***top five*** of the following in terms of frequency of consultation regarding educational innovations (i.e. 1= person/group you consult with most often regarding educational innovations; 5= person/group that ranks fifth in list of top five…).

_____ Your departmental / college colleagues

_____ Your dean / department chair

_____ The local principals

_____ The local school district superintendent

_____ The district foreign language supervisor

_____ The State Department of Ed.

_____ The State FL supervisor

_____ Mentor teachers assigned to your interns

_____ Local inservice FL teachers

_____ Your FL teaching interns

_____ Your graduate teaching assistants

_____ Professional contacts outside of city/town where I live

_____ The World Wide Web (please describe): _____

_____ Conference presentations / workshops (please describe): _____

_____ Professional journal(s) / newsletter(s) (please name): _____

_____ Other(s) (please describe): _____

7. Please check those professional organizations with which you have participated, then check the box out to the side that best describes your level of involvement.

1=Very active as a member (VA): i.e. "consistently publishing, presenting/serving as officer"
2=somewhat active member (SA): i.e. "attending conferences at least semi-annually"
3=inactive member (IM): i.e. "attending conferences at least once every couple of years"
4=not a member at present time (NM): i.e. "rarely, if ever participating in any capacity"

	VA	SA	IM	NM
___ My state's foreign language teaching organization	___1	___2	___3	___4
___ One of the AAT's (e.g. The American Association of Teachers of French)	___1	___2	___3	___4
___ The Southern Conference on Language Teaching (SCOLT)	___1	___2	___3	___4
___ The American Council on The Teaching of Foreign Languages (ACTFL)	___1	___2	___3	___4
___ The Modern Language Association (MLA)	___1	___2	___3	___4
___ Other(s) (Please identify): _____	___1	___2	___3	___4
_____	___1	___2	___3	___4

8. Please rate the following in terms of support of innovations and openness to change
   1= Extremely supportive of innovations and open to change
   2= Somewhat supportive of innovations and open to change
   3= Somewhat skeptical of innovations and resistant to change
   4= Extremely skeptical of innovations and resistant to change

Your departmental/college colleagues: ___1 ___2 ___3 ___4

The local community: ___1 ___2 ___3 ___4

Local principals: ___1 ___2 ___3 ___4

The local school district superintendent: ___1 ___2 ___3 ___4

The district foreign language supervisor: ___1 ___2 ___3 ___4

The State Department of Ed: ___1 ___2 ___3 ___4

The State FL supervisor: ___1 ___2 ___3 ___4

Mentor teachers assigned to your interns: ___1 ___2 ___3 ___4

Local in service FL teachers: ___1 ___2 ___3 ___4

Your FL interns: ___1 ___2 ___3 ___4

Yourself: ___1 ___2 ___3 ___4

9. "Our program's foreign language methods course(s) serve students pursuing…" (check all that apply):

___ K-12 FL certification ___ secondary certification

___ FLEX / FLES certification ___ ESL certification ___ a Teaching Assistantship

___ We don't offer a FL methods course

If your program offers (the) FL methods courses, which texts are assigned?

___ Teaching Language in Context ___ State framework for foreign languages

___ Classroom techniques: Foreign languages & English as a second language

___ Other(s) (Please list): _____

10. Please rank your top *five* most important topics for inclusion in the foreign language methods course curriculum (i.e. 1=***Most important; 5= 5th most important***):

___ L1 theories of language learning   ___ Participation in professional organizations

___ Second language acquisition   ___ Developing a philosophy of FL teaching

    theory & research   ___ History of teaching foreign languages

___ teaching methods   ___ Assessment/Test design

___ teaching reading   ___ The ACTFL Oral Proficiency Interview

___ teaching writing   ___ Lesson planning/Unit planning

___ teaching listening   ___ State guidelines

___ teaching speaking   ___ ACTFL Proficiency Guidelines

___ Nat'l Standards for FL learning   ___ Analyzing textbooks / materials for

___ Technology in the FL classroom   proficiency-orientatin

___ Other(s) (Please describe & rank): _____

11. In your experience as a foreign language teacher educator, what has been the most important language teaching innovation you have passed on to your students?_____.

What made it important? _____

_____

II.   ACTFL PROFICIENCY GUIDELINES DISSEMINATION

12. How would you define '*proficiency-oriented instruction*' (FL instruction derived from the ACTFL Proficiency Guidelines)?:_____

_____

13. How familiar are you with…? *(**1=Very** familiar**; 2=Somewhat fami**liar**; 3=Not** familiar)**:*

	VF	SF	NF
ACTFL *Proficiency* Guidelines (1982, 1986)	___ 1	___2	___3
ACTFL Provisional Guidelines for FL Teacher *Education* Programs (1993)	___ 1	___2	___3
National Standards for Foreign Language Learning (K-12) (1996)	___ 1	___2	___3
ACTFL *Performance* Guidelines (1998)	___ 1	___2	___3

14. As best you can remember, when did you first learn of the ACTFL Proficiency Guidelines ('82, '86)?

__'82-'84 __'84-'86 __'86-'88 __'88-'90 __'90-'92 __'92-'94 __'94-'96 __'98-'99

__ I'm really not at all familiar with the ACTFL *Proficiency Guidelines*

(If you check this item, feel free to skip any of the following items which do not apply)

15. How did you *first* become familiar with the *Proficiency* Guidelines? **Check all that apply:**

_____ Through a colleague at work.

_____ At a conference workshop / presentation on _____

_____ Through a college/university course

_____ Other. Please describe: _____

16. Have you implemented the ACTFL *Proficiency* Guidelines? ___Yes. ___No.
If 'Yes', approximately when did you first put them into practice?

__'82-'84 __'84-'86 __'86-'88 __'88-'90 __'90-'92 __'92-'94 __'94-'96 __'98-'99

__ Haven't put them into practice. *(If checked, please skip any items that don't apply.)*

How did you first implement the ACTFL *Proficiency* Guidelines?_____

17. Are you aware of activity of ACTFL representatives related
to promoting the ACTFL *Proficiency* Guidelines in your area? ___Yes ___No

If you answered 'Yes,' please describe:_____

18. Have you played a role in promoting the ACTFL *Proficiency* Guidelines? ___ Yes. ___No.

If you answered 'Yes,' please describe your role:_____

19. Have you received training in use of the ACTFL Oral Proficiency Interview?___Yes ___ No

20. Have you obtained official certification as an ACTFL OPI interviewer/rater? ___Yes ___No
If 'Yes,' and you have allowed your certification to lapse, why? *(**Check all that apply**)*
___Lack of time ___Financial reasons ___ Other (please describe): _____

21. Do you test the oral proficiency of your foreign language teacher education program
candidates? ___Yes ___No

If you answered 'Yes,' please describe how:_____

22. Does your university/college's language department
perform exit oral proficiency tests for their majors? ___Yes ___No ___Don't know

23. Does your foreign language teacher education program
encourage teaching interns to continue to develop their proficiency? ___Yes ___No

If you answered 'yes,' please describe how this is done:_____

24. Please rate the ACTFL *Oral Proficiency Interview* (OPI) according to the following criteria:
*1 indicates the **highest** rating in the given category, 4 indicates the **lowest***

Relative advantage over traditional assessment methods: ___1 ___2 ___3 ___4

Compatibility with FL instruction in my area: ___1 ___2 ___3 ___4

Trialability: ___1 ___2 ___3 ___4

Observability of results: ___1 ___2 ___3 ___4

Flexibility: ___1 ___2 ___3 ___4

Complexity: ___1 ___2 ___3 ___4

Cost of implementation: ___1 ___2 ___3 ___4

25. Please rate your impressions of proficiency-oriented instruction along the following criteria:
*1 indicates the **highest** rating in the given category, 4 indicates the **lowest:***

Relative advantage over traditional FL Instruction: ___1 ___2 ___3 ___4

Compatibility with FL instruction in my area: ___1 ___2 ___3 ___4

Trialability: ___1 ___2 ___3 ___4

Observability of results: ___1 ___2 ___3 ___4

Flexibility: ___1 ___2 ___3 ___4

Complexity: ___1 ___2 ___3 ___4

Cost of implementation: ___1 ___2 ___3 ___4

III.   IMPLEMENTING THE ACTFL PROFICIENCY GUIDELINES

26. Have the *ACTFL Proficiency Guidelines* been integrated into your program's FL methods course? __Yes __No
If you answered 'Yes' please describe how:_____

27. Please indicate your assessment of the extent of the ACTFL Proficiency Guidelines' implementation on the following according to the scale below.

1=extensive impact, 2=significant impact, 3=some impact, 4=minimal impact

The state foreign language framework / guidelines ___1 ___2 ___3 ___4

The state foreign language supervisor   ___1 ___2 ___3 ___4

The local foreign language curriculum guidelines   ___1 ___2 ___3 ___4

The local foreign language supervisor   ___1 ___2 ___3 ___4

Local foreign language teachers   ___1 ___2 ___3 ___4

Mentor teachers who work with interns   ___1 ___2 ___3 ___4

Interns enrolled in this program   ___1 ___2 ___3 ___4

28. Please indicate your response to the statement: "ACTFL's Proficiency Guidelines have become and will endure as a standard of professional practice among foreign language teachers in my area."

___Strongly Agree ___Agree ___Disagree ___ Strongly Disagree

Comments: _____

29. Please list up to *two* factors you think have *facilitated* the impact of the ACTFL Proficiency Guidelines:

  1. _____

  2. _____

30. Please list up to *two* factors that you think may have limited the impact of the ACTFL Guidelines:

  1. _____

  2. _____