How Institutionalized is Distance Learning? A Study of Institutional Role, Locale and Academic Level

Anthony A. Piña, Ed.D.
Coordinator of Learning Technologies
Northeastern Illinois University
Chicago, Illinois
a-pina@neiu.edu

Abstract

The purpose of this study was to determine areas of strengths and weaknesses in the institutionalization of distance learning at colleges and universities. To accomplish this goal, 30 factors found to influence the institutionalization of innovations were identified from the literature of several area. These factors were rated by distance learning professionals on how successfully each of the individual factors was being implemented at their respective institutions. Results were analyzed and compared according to institutional role (distance learning administrators or distance learning faculty), academic level of the institution (associate, masters or doctorate) and institutional locale (rural, suburban or urban).

Introduction

According to research conducted by the Sloan Consortium, distance learning appears to be a vibrant part of higher education, with 83% of higher education institutions offering some form of distance learning (Allen & Seaman, 2007). But are distance learning programs at each of these colleges and universities equally healthy? Do they all offer a full range of online degree programs with full organizational, infrastructure, design and technical support for distance learners and their instructors, or do many provide merely a few courses each semester with no discernable growth?

Researchers examining distance learning programs at higher education institutions report many cases of successful, well-developed and thriving programs (e.g. Moore, 2004) and others that stagnate, shrink or have been discontinued (e.g. Garrett, 2004; Schell, 2004). For many of the latter institutions "decisions about distance education are made too often without adequately considering the broader institutional context" (Boyd-Barrett, 2000, p.1) and "some institutions that are struggling to keep up with the demand for Internet-based courses have made a conscious decision to serve students immediately and plan later" (Phipps & Merisotis, 2000, p.7).

One reason for the lack of success of many of these programs and similar innovations is that they have never been fully institutionalized within their organizations (Curry 1992; Oldford, 2002). In other words, they have not become a "normal" and integral part of the institution, losing their "special project" status (Surrey & Ely, 2002). Most models of organizational

change (e.g. Rogers, 2003) tend to view adoption or implementation as the final step in the change process. Surry and Brennan (1998) point out that the research based on these models tends to demonstrate "a deterministic bias—it assumes that once an innovation has been adopted, it will continue to be used" (p.2). Ellsworth (2000) notes that "the successful transition from implementation to institutionalization is rarely mentioned in the literature" (p. 43).

In this study, 30 factors found to influence the institutionalization of innovations are applied to distance learning programs at colleges and universities, to determine where the areas of greatest strengths and greatest weaknesses lie. To gain a broad perspective, both distance learning administrators and distance learning faculty are surveyed. In addition, other institutional variables, namely the academic level of the institution and the locale or setting of the institution are considered in the analysis.

Institutional Variables

Research conducted by the National Center for Education Statistics (NCES) at the U.S. Department of Education and elsewhere, reveals that distance learning outcomes vary (often significantly) at different types of higher education institutions. Among the variables that have been found to affect distance learning are institutional locale (i.e. rural versus suburban versus urban) and the academic level of the institution (i.e. undergraduate versus graduate) (NCES, 2003). In addition, there is evidence to suggest that those with different roles within the institution (e.g. faculty and administrators) may have different perceptions of distance learning. These findings can be used to generate hypotheses for the present study.

Institutional Role: Administrator and Faculty Perspectives

According to Keenan (2007), college and university faculty and administrators tend to have different perspectives and priorities with regard to their institution. Some of the areas of the "faculty-administrator divide" include collegial versus managerial relationships, disciplinary or departmental versus managerial perspectives and micro versus macro views of the institution (Smart & Kuh, 1997). Another source of this difference is that "administrators often have more influence over resource allocation than individual faculty" (McMillin, 2002, p. 3). Administrator perceptions toward their institutions tend to be more favorable. In their study of faculty and administrator's view of distance learning, Selani & Harrington (2002) found that distance education places different expectations on faculty and administrators. Faculty tended to be most concerned about quality issues of learning outcomes, faculty training and selection, academic misconduct, and teaching loads. Faculty and administrator perspective differed with respect to learning outcomes, classroom management, faculty selection and training, compensation, teaching load, and program marketing. Lee (2002) found that faculty and administrators perceptions were different with regards to instructional support for distance learning. Keenan (2007) found that administrators and faculty disagreed on the implementation of class size limits and technical support for distance learning. It is hypothesized that administrators would rate their institutions higher than would faculty when it comes to successfully institutionalizing distance learning.

Academic Level of Institution

Classification of higher education institutions by degree level is a method used both inside

and outside academia. An example of the former is the "Classification of Institutions of Higher Education" developed by the Carnegie Foundation for the Advancement of Teaching (McCormick, 2000). An example of the latter is the annual ranking of colleges by U.S. News and World Report (Morse, Flanigan & Setoodeh, 2004). The NCES (2003) study found that institutions with graduate degree programs offered distance learning courses at a slightly higher rate than institutions with only undergraduate programs (63% versus 57%). Public and private 4-year institutions were more likely to offer entire degree programs via distance learning (48% and 33% respectively) than 2-year colleges (20%). Universities tend to have access to greater resources and per-student funding than community colleges (Center for Community College Policy, 2000; Murphy, 2004). It is hypothesized that distance learning at institutions that award graduate degrees will tend to be more successful at institutionalizing distance learning than those colleges that award solely 2-year undergraduate degrees.

Institution Locale

Distance learning has a long history in rural education, dating to the late 1800s, when the University of Wisconsin and Pennsylvania State University began extension and correspondence programs to provide agricultural education to rural families (Simonsen, Smaldino, Albright & Zvacek, 2006). Service areas for rural colleges and universities tend to be much larger than those for those that serve urban or suburban areas. Higher education institutions with large rural service areas, such as those in Wyoming, Virginia and Iowa were among the first to establish state-wide distance learning consortia and technology systems (Shoemaker, 1998; Sorensen, Maushak & Lozada, 1996). It is hypothesized that rural colleges and universities will be more successful at institutionalizing distance learning than urban or suburban institutions.

Questions for Study

1. Do distance learning faculty and administrators differ in how they rate their respective institutions' success in implementing the institutionalization factors?
2. Which factors are most successfully implemented?
3. Which factors are the least successfully implemented?
4. Does institutional academic level (undergraduate or graduate) influence the level of implementation of the institutionalization factors?
5. Does institutional locale (rural, suburban or urban) influence the level of implementation of the institutionalization factors?

Method

Participants

The sample consisted of 170 respondents involved in distance learning at their institutions. Respondents were classified according to their institutional role (distance learning administrator or distance learning faculty), the academic level of their institution (highest degree offered) and institutional locale (urban, suburban or rural). Due to the low number of respondents from bachelor degree granting institutions, this category was excluded from the institutional academic level analysis. Table 1 shows the breakdown of respondents by institutional classification.

Table 1:

Institutional Classification of Respondents (n=170)

Classification	Sub Groups	Respondents
Institutional Role	Distance Learning Faculty	111
	Distance Learning Administrator	59
Institutional Academic Level	Associate Degree	50
	Bachelor Degree	3*
	Master/Specialist Degree	59
	Doctorate Degree	55
	Unknown	3*
Institutional Locale	Urban	60
	Suburban	52
	Rural	55
	Unknown	3*
Note: * Excluded from the data analysis for this classification		

Instrumentation

A literature review of factors necessary for the institutionalization of innovations was undertaken in the areas of service learning (Furco, 1999; Kramer, 2000), organizational behavior (Tolbert & Zucker, 1994), health care (Goodman & Steckler, 1989; Public Education Network, 2004), engineering (Colbeck, 2002), educational leadership (Aronsen & Horowitz, 2000), library science (Oldford, 2002), and distance learning (Levin, 2005; Phipps & Merisotis, 2000; Western Cooperative for Educational Telecommunications, 2000). After eliminating certain area-specific items and modifying the wording of others to be relevant to distance learning, a total of 30 factors were identified. Following Furco (1999) and Kramer (2000), a survey instrument was created that included an application item for each factor. The instrument also contained a section to identify respondents as distance learning administrators or faculty, report the highest degree offered by their institutions, and whether their institutions were located in an urban, suburban or rural setting. Table 2 lists the 30 institutionalization factors and the application item for each factor.

Table 2:
Institutionalization Factors and Application Items

Factor	Item		Factor	Item
Institutional Mission	Distance learning is compatible with institution mission/vision statements		Master Plan	There is a specific master plan for distance learning
Policies and Procedures	Formal policies and procedures for distance learning have been adopted		Marketing	There is an aggressive marketing plan to promote distance learning
Needs Assessment	There is periodic assessment of faculty, student and institutional distance learning needs		Evaluation	There is a formal plan for ongoing evaluation of distance learning
Campus-Wide Function	Distance learning is a campus-wide function, not a dependent unit of a particular school, department or discipline		Centralized	Distance learning is coordinated by a single central entity, rather than run from many different departments.
Collaboration	Distance learning staff collaborates regularly with other entities on campus to insure broad base support.		DL Leadership Authority	Distance learning director/coordinator has decision making authority
	Distance learning is visibly recognized on the institution's			There is a formal mechanism for informing the campus

Visibility	web site, catalogue, bulletins or organizational chart	Communication	community about distance learning activities
Instructional Design Support	Instructional design help to assist faculty to develop distance learning courses is available	Faculty Tech Support	The institution provides technical support for distance learning faculty
Staff Development	Comprehensive and on-going staff development in distance education is provided	Funding	The distance learning program and staff are permanent budget items funded by hard money
Infrastructure	The campus hardware and software infrastructure can support distance learning systems	Course Management System	Distance learning utilizes a course management system such as Blackboard
Distance Learning Director	There is a director/coordinator whose primary responsibility is distance learning	Permanent Staffing	Distance learning staff consists of permanent, rather than temporary, employees
Full-Time Staff	Distance learning staff are assigned full-time to distance learning	Faculty Participation	Faculty (especially faculty leaders) are actively recruited to teach distance learning courses
Professional Incentives	Professional incentives for teaching distance learning courses (e.g. positive evaluation for promotion/tenure) available	Financial Incentives	Financial incentives for teaching distance learning courses (e.g. course development fees, royalties) are available
Online Registration	Students can register for, add and drop courses on line	Online Library Resources	Students can access a full range of library/research services on line
Advising & Counseling	Students have access to counselors and advisors without having to come to campus	Student Tech Support	The institution provides technical support for distance learning students
Online Degree	Students can complete an entire degree program via distance learning	Multiple Disciplines	Distance learning courses are available in multiple disciplines

Instrument Distribution and Reliability

The instrument was constructed and distributed online using SurveyMonkey software (SurveyMonkey, 2004). IP data was collected by SurveyMonkey to prevent duplicate completion of surveys; however data sent to the researcher was aggregated to maintain respondent confidentiality. Solicitations to complete the survey were sent to the electronic mailing list (listserv) of regional and state-wide distance learning consortia and professional associations with a link to the survey's website. Reliability of the instrument was verified by using Cronbach's Alpha, which yielded a coefficient of .93 across all thirty items.

Data Analysis

Respondents were asked to rate how successful their respective institutions were at implementing each of the 30 factors. A five-point Likert-type scale with values of 1 (completely), 2 (mostly), 3 (a little), 4 (not at all) was utilized. Respondents who did not know whether their institutions implemented specific factors were given the option of answering "I don't know" to any of the items on the questionnaire. These "I don't know" answers were excluded from the final data analysis. Responses were grouped and analyzed according to the respondents' role (faculty versus administrators), academic level of their institutions (highest degree awarded), and locale of their institutions (urban, suburban or rural). Data were analyzed using descriptive statistics (mean scores, standard deviations, rank ordering), and inferential statistics, (ANOVA, Scheffé's post-hoc test for multiple comparisons). Alpha level for significance was set at $P < .05$. Originally, the study also included data by institutional affiliation (public or private) and size of student enrollment

(less than 3,000, 3,000-10,000 or above 10,000). However these last two classifications did not produce the same significant results as institutional role, level and locale, so they have been excluded from this report.

Results

Institutional Role (Administrators vs. Faculty)

Table 3, which reports mean scores, standard deviations and rank orders for distance learning faculty and administrators, demonstrates that both groups are in basic agreement as to which factors are most successfully implemented by their institutions. Both agree that course management systems are the best implemented factor. Institutions are also most successful in the implementation of online registration, online library resources, distance learning director, faculty technology support, visibility and permanent distance learning staff. All of these were judged to be either "completely" or "mostly" implemented. Faculty and administrators agreed that their institution's weakest areas were in offering professional and financial incentives to faculty, recruiting participation by faculty and performing assessment of distance learning needs.

ANOVA, revealed significant differences between administrators and faculty for the factors of offering financial incentives, collaboration with other on-campus entities, providing fully online degrees, accessing advisement and counseling services, and offering professional incentives. These are listed in Table 4. In each of these cases, administrators rated their institutions as more successful in implementing the factors than did faculty. The hypothesis that administrators would rate their institutions higher than faculty finds support in five (17%) of 30 factors.

Faculty were more likely than administrators to answer "I don't know" when asked to rate how well their institutions implemented the institutionalization factors. Of the 111 faculty surveyed, 50 (45%) answered "I don't know" to at least one of the implementation items. The item answered "I don't know" most often by faculty (37) was whether distance learning was a permanent budget item funded by hard money. Only 5 of 59 administrators (8%) gave an "I don't know" answer on at least one of the items. The item answered "I don't know" most often by administrators (4) was whether there was a master plan for distance learning.

Table 3:
Mean Scores for Implementation for 30 Institutionalization Factors

Factor	**Administrators**			**Faculty**			**Total**		
	Mean	S.D.	Rank	Mean	S.D.	Rank	Mean	S.D.	Rank
Course management system	1.40	0.724	1	1.45	0.772	1	1.43	0.754	1
Online registration	1.69	0.876	4	1.47	0.854	2	1.55	0.865	2
Online library	1.60	0.674	2	1.53	0.701	3	1.56	0.691	3
Infrastructure	1.78	0.832	7	1.74	0.725	4	1.75	0.762	4
DL director	1.68	0.973	3	1.87	1.050	6	1.80	1.024	5
Faculty tech support	1.80	0.689	8	1.85	0.768	5	1.83	0.740	6
Visibility	1.73	0.848	5	1.92	0.848	8	1.85	0.850	7
Permanent staff	1.83	1.028	9	1.91	0.877	7	1.88	0.933	8
Campus-wide function	1.76	0.865	6	2.02	0.879	11	1.93	0.880	9
Budget	1.88	1.010	11	2.01	1.000	10	1.95	1.003	10
Multiple disciplines	1.92	0.816	12	2.00	0.828	9	1.97	0.822	11
Institutional mission	1.93	0.896	13	2.02	0.736	11	1.99	0.794	12

Centralized	1.83	0.985	9	2.11	1.110	13	2.01	1.073	13
Student tech support	2.03	0.909	14	2.16	0.865	15	2.11	0.880	14
Instructional design support	2.10	0.885	17	2.15	0.960	14	2.14	0.932	15
Policies & procedures	2.12	0.751	18	2.16	0.874	15	2.15	0.831	16
Staff development	2.21	0.853	20	2.23	0.905	17	2.22	0.885	17
Full time staff	2.16	1.182	19	2.33	1.115	19	2.26	1.140	18
Advisement & counseling	2.03	0.898	14	2.45	0.972	22	2.29	0.963	19
Communication	2.38	0.895	24	2.28	0.890	18	2.32	0.890	20
Collaboration	2.07	0.944	16	2.49	0.890	23	2.33	0.930	21
Master plan	2.35	0.865	23	2.35	0.869	20	2.35	0.865	22
DL leadership authority	2.33	0.925	22	2.42	0.971	21	2.39	0.951	23
Evaluation	2.43	0.901	26	2.49	0.927	23	2.47	0.915	24
Needs assessment	2.42	0.855	25	2.63	0.883	25	2.55	0.876	25
Online degree	2.25	1.040	21	2.73	1.059	28	2.56	1.074	26
Recruit faculty	2.46	1.006	27	2.63	0.870	25	2.56	0.924	26
Marketing	2.79	0.833	29	2.64	0.911	27	2.69	0.884	28
Finance incentives	2.74	1.061	28	3.27	0.892	30	3.08	0.987	29
Professional incentives	2.86	1.008	30	3.22	0.914	29	3.09	0.963	30

Table 4:
Significant Differences – Institutional Role

Factor	**Value (p < .05 is significant)**	**Significance**
Financial Incentive	F (1,158) = 11.576, p = .001	Administrators higher than faculty
Collaboration	F (1,159) = 7.827, p = .006	Administrators higher than faculty
Online Degree	F (1,159) = 7.716, p = .006	Administrators higher than faculty
Advisement & Counseling	F (1,153) = 6.924, p = .009	Administrators higher than faculty
Professional Incentive	F (1,154) = 5.321, p = .022	Administrators higher than faculty

Institutional Academic Level (Associate vs. Masters vs. Doctorate)

Although there was almost complete agreement between masters and doctoral institutions as to the ranking of the top five factors, there was less agreement with associate granting institutions. However, all three groups included course management system, online registration, online library resources, infrastructure, distance learning director and faculty technology support among their top ten best implemented factors--albeit not in the same order. All three groups were in agreement that professional incentives, financial incentives and marketing were the least successfully implemented factors at their respective institutions.

Results of ANOVA showed significant differences in the implementation of online degrees, visibility, advisement and counseling, student technology support, centralized function, and infrastructure, according to the academic level of the institution. Since three difference groups were compared, Scheffé post-hoc test for multiple comparisons was run to determine where the significant difference actually occurred. Table 5 reveals that doctoral granting institutions were ranked significantly higher than associate granting institutions in implementing fully online degrees and in providing advisement and counseling services. Masters institutions were found to be significantly more successful than associate granting institutions in implementing student technology support, advisement and counseling, and online degrees, and significantly higher than doctoral universities in centralizing distance learning within the institution. Associate granting colleges were ranked significantly higher than doctoral on centralizing distance learning and in promoting visibility for distance learning at their institutions. ANOVA showed a significant effect for infrastructure;

however, the Scheffé test revealed that closest effect--between masters and doctoral--was not significant (p = .053). The hypothesis that distance learning at institutions that award graduate degrees will tend to be more successful at institutionalizing distance learning than those colleges that award solely associates or bachelors degrees was supported for five (17%) of 30 factors.

Table 5:
Significant Differences – Institutional Level

Factor	**Value (p < .05 is significant)**	**Significance**
Online Degree	*F* (2, 153) = 8.520, P < .001 Scheffé p = .001; p = .011	Doctorate higher than Associate Masters higher than Associate
Advisement & Counseling	*F* (2,148) = 6.940, p = .001 Scheffé p = .012; p = .003	Doctorate higher than Associate Masters higher than Associate
Student Tech Support	*F* (2,154) = 6.266, p = .002 Scheffé p = .002	Masters higher than Associate
Centralized Function	*F* (2,159) = 5.892, p = .003 Scheffé p = .012; p = 014	Masters higher than Doctorate Associate higher than Doctorate
Visibility	*F* (2,159) = 7.173, p = .001 Scheffé p = .001	Associate higher than Doctorate

Institution Locale (Urban vs. Suburban vs. Rural)

Professionals from urban, suburban and rural institutions were in agreement that course management system, online registration and online library services were the most successfully implemented factors at their institutions. Infrastructure, distance learning director, faculty technology support, permanent distance learning staff and campus-wide function were in the top ten factors for all three groups. All three groups were also in accord that professional incentives, financial incentives, marketing and recruiting faculty participation were the least successfully implemented factors at their colleges or universities. Those at rural institutions gave the offering of professional incentives the lowest average score for implementation in the entire study.

Table 6 shows results of significant differences by locale. ANOVA, revealed significant differences for instructional design support, policies and procedures, campus-wide function, professional incentives, faculty technology support, staff development, and online registration. Post-hoc testing using Scheffé revealed that urban colleges and universities were ranked significantly higher than rural on the factors of instructional design support, policies and procedures, campus-wide function, professional incentives, and faculty technology support. Suburban colleges and universities ranked significantly higher than rural on the factors of faculty technology support and staff development. Urban was found to have a slight significant effect over suburban on professional incentives. Although online registration showed a slightly significant overall effect under ANOVA, the Scheffé test revealed that the effect for urban versus rural was just under significance (p = .051) and all other combinations were not significant. The hypothesis that distance learning at rural institutions will tend to be more successful at institutionalizing distance learning than at suburban or urban institutions was not supported by any of the factors.

Table 6:
Significant Differences – Institutional Locale

Factor	Value (p < .05 is significant)	Significance
Instructional Design Support	*F* (2,165) = 7.187, p = .001 Scheffé p = .001	Urban higher than Rural
Policies and Procedures	*F* (2,160) = 3.515, p = .032 Scheffé p = .033	Urban higher than Rural
Campus-Wide Function	*F* (2,161) = 3.180, p = .044 Scheffé p = .047	Urban higher than Rural
Professional Incentives	*F* (2,151) = 4.616, p = .011 Scheffé p = .028; p = .046	Urban higher than Rural Urban higher than Suburban
Faculty Tech Support	*F* (2,164) = 6.864, p = .001 Scheffé p = .002; p = .037	Urban higher than Rural Suburban higher than Rural
Staff Development	*F* (2,164) = 4.066, p = .019 Scheffé p = .032	Suburban higher than Rural

Discussion

The utilization of a course management system (aka learning management system) to deliver distance learning was considered the most successfully implemented factor by all groups. This corroborates recent literature identifying systems such as Blackboard, Blackboard Vista (formerly WebCT), Desire2Learn, Angel, Sakai and Moodle as the most commonly available and utilized educational technology at colleges and universities (e.g. Dabbagh & Bannan-Ritland, 2005; Piña, 2007). Providing registration online and access to library/research resources online was considered well-implemented at colleges and universities.

At the other end of the spectrum, the offering of professional incentives, such as credit toward promotion and tenure for faculty who engage in distance learning activities, received the lowest overall ratings for implementation of any of the 30 factors. Although research indicates that faculty value professional incentives higher than they do financial incentives (Giannoni & Tesone, 2003; Parker 2003), it appears that colleges and universities have not found an effective way to provide professional recognition for faculty participating in distance learning. This supports Schell's research, which finds that faculty can be negatively influenced by developing distance learning that pulls them away from scholarly activities (Schell, 2004). It is a likely contributor to the low scores in the area of recruiting faculty participation in distance learning, which "usually does not help professors' promotion and tenure goals" (Prestera and Moller, 2002, p. 8). Community college faculty, who tend not to be bound by the same "publish or perish" constraints of their university peers, actually gave this factor the lowest rating of the three groups. This may be explained by the larger teaching load required of community college faculty and the increased time and effort required to develop online courses, which does not result in a professional benefit. Faculty who teach online are not doing so because they are being rewarded professionally by their institutions.

Institutional Role

Overall, administrators tended to have a more optimistic view than faculty regarding how well their institutions implemented the 30 factors. In all of the areas in which there was a significant difference (collaboration, online advisement, online degree, financial incentives and professional incentives), administrators rated their institutions as more successful in implementation than faculty. It must be noted, however, that even administrators rated the implementation of the latter two as low. Administrators were also more likely than faculty to have knowledge of whether or not the factors were being implemented at their

institutions and gave far fewer "I don't know" ratings than did faculty. Given the fact that most of the institutionalization factors in this study are administrative in nature, it is to be expected that those with administrative responsibility would be more aware of them.

Academic Level

Institutions of higher education that award graduate degrees (masters, specialist or doctorate) tended to show more similarities than differences with each other and demonstrated a number of differences with those that grant the associate as the highest degree. A look at the two areas for which associate level colleges scored higher for implementation may provide clues as to their scores for importance. The successful implementation of visibility of distance learning at associate institutions may contribute to less emphasis on marketing. The successful implementation of a centralized distance learning program (as opposed to doctoral institutions, which tend to be divided into schools, colleges and departments that provide their own independent services) may affect the perceived need for master planning at associate-level colleges.

The more successful implementation of distance learning degrees, student technology support and assessment via distance learning by graduate-level institutions reflects the trend that distance learning degrees and programs are generally developed first at the graduate level and later developed at the undergraduate level. Currently, there are more graduate degrees available by distance learning than undergraduate degrees. However, this situation may be changing soon, due to latest research findings showing that the largest rate of growth in distance learning programs is occurring currently at community colleges (Allen & Seaman, 2007).

Institutional Locale

Distance learning professionals at rural colleges and universities rated several of the factors differently than their peers at suburban and urban institutions. Contrary to the expectations stated in the hypothesis, those at rural institutions rated 20% of the factors as significantly more poorly implemented—the largest quantity of differences of any group analyzed in this study. This group also gave one of the factors, implementation of professional incentives, the lowest overall mean score (3.28) in the entire study. Having distance learning function as a campus-wide function was identified as a weakness at rural colleges and universities and could be the reason why policies and procedures for distance learning are not well implemented at these institutions. These weaknesses could also be catalysts for the condition that nearly every factor dealing with faculty support—instructional design support, faculty technical support, staff development and professional incentives, was rated as poorly implemented at rural colleges and universities. Another reason may be that rural institutions have a harder time recruiting and keeping support personnel. Given the rich history of distance learning in rural education and the critical role that it plays at many rural institutions, this finding is both surprising and disturbing.

Conclusion

The 30 institutionalization factors can be used by leaders who wish to evaluate the strengths and weaknesses of their distance learning programs and, with some slight modifications in verbiage, other campus programs and innovations. It is clear that that the institutions of higher education represented in this study do some things well and need improvement in some areas. Those involved in planning and administering distance learning programs

would do well to consider those factors appearing at the bottom of the list.

Many of the faculty in this study suffered from a lack of knowledge of how their institutions' distance learning programs functioned. Creating a more effective system of communicating (one of the 30 institutionalization factors) would help to mitigate this problem.

Encouraging faculty participation via financial and (especially) professional incentives is the greatest and most consistent weakness identified in this study. Given the large amount of time and effort required to develop a quality online course (Cavanaugh, 2005) and the pressures facing junior faculty who wish to be promoted and receive tenure or community college faculty with large teaching loads, leaders may consider some "out of the box" solutions for providing professional incentives to those faculty who would teach at a distance. One method could be to utilize a system of peer review for online course development using a rubric such as Quality Matters (Shattuck, 2007). Upon successful evaluation of a course by peer review, the candidate would be awarding credit for teaching or scholarship that would count positively toward review, promotion and tenure.

Distance learning programs at associate degree granting institutions appear to have fundamental differences in priorities and in the way their distance learning programs are structured within their organizations, as compared to their graduate degree offering counterparts. Given their recent growth, community colleges appear to be doing what works for them; however, administrators would do well to consider workload and release time when making assignments for online teaching. Distance education professionals in rural institutions were found to experience numerous challenges compared to their urban and suburban peers in nearly every area related to faculty support. Since distance education may be the key to survival of many of these institutions (Oakley, 2004) leaders at rural institutions would do well to evaluate their support of faculty teaching at a distance.

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