

Faculty Participation in Asynchronous Learning Networks: A Case Study of Motivating and Inhibiting Factors

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ABSTRACT

This case presents and compares the top five motivating and inhibiting factors for faculty participation in Asynchronous Learning Networks (ALN) or distance education (DE) as reported by faculty participators and non-participators, and administrators. While faculty and administrators agreed strongly on what inhibits faculty from participating in ALN/DE programs, there were significantly different perceptions on what motivates faculty to participate across the three groups. For ALN/DE programs to succeed, faculty participation is imperative; therefore, program administrators need to understand why faculty participate.

KEYWORDS

Asynchronous Learning Networks (ALN), Distance Education (DE), Faculty Motivators, Faculty Inhibitors

I. INTRODUCTION

Distance education (DE) is not new to higher education. Correspondence programs have served higher education students for over a hundred years. What makes DE different and intriguing today to universities, colleges, and many others, is the use of interactive computer-mediated communication (CMC) systems to create Asynchronous Learning Networks (ALN) and learning communities.

The literature on ALN/DE has much information describing the students as older, mature, self-initiators interested in outcomes [1], [2], [3], [4]; taking time away from family and careers to go back to school [5], [6]; less likely to be female [7], [8], [9]; and less likely to be from a minority population [10], [11], [12]. There are articles on “how-to-do” DE [13], [14], [15], [16], addressing such issues as distance learning environments, design issues, and case studies of successful ALN/DE courses. What is missing from the ALN/DE literature is a significant discussion of the faculty, full or part time, who teach the courses and why they participate while others do not.

Taylor and White reported faculty preferred conventional face-to-face (FTF) courses over distance teaching due to the degree of interpersonal contact available in each mode [17]. Fewer

interactions with distant students led to less faculty interest to participate, but it should be noted that this study was done at a time when computer-mediated communication (CMC) was limited in scope. Clark showed through a national survey that faculty support for distance courses was tempered by concern for quality of interaction, administrative support, and rewards [18]. And Olcott and Wright suggested that faculty are not enthusiastic about participating in DE due to a lack of administrative support [19].

In some institutions of higher education, how to entice faculty participation in ALN/DE has been thought of in terms of financial rewards and incentives. Wolcott [20] discussed how teaching in DE is not highly valued and is not related to tenure and promotion decisions. Dillon studied faculty rewards in telecourses and discovered faculty participated "for a variety of personal reasons, ranging from diversity of experience to altruism toward the non-traditional learner" [21 (p. 42)]. Dillon and Walsh reviewed 225 articles and concluded that "...faculty motivation to teach at a distance results from intrinsic [prestige, self esteem] rather than extrinsic incentives [monetary rewards]" [22 (p. 16)].

Knowing what motivates and inhibits faculty will facilitate implementation of new and expansion of current ALN/DE programs. For instance, the faculty role in ALN/DE changes from a teacher centered model to one more student-centered [23], [24], [25]. These changes are difficult for some faculty who know and are comfortable only with the traditional form of classroom-based teaching. In addition, teaching skills for successful teaching at a distance are different from those required to teach FTF [26], [27]; however, faculty training programs tend to be limited to how to use the computers or software, not on how to teach at a distance [28]. These two factors may mean that the faculty who participate in ALN/DE are interested in trying new ways to reach students, and likely to be comfortable using computers, but this is just speculation. The movement toward establishing Virtual Campuses/Universities/Schools is disturbing for many faculty and the national teachers unions. Administrators need to understand their faculty population if they are to provide an environment that maximizes motivating factors and minimizes inhibiting factors for faculty participation in ALN/DE, and not merely resort to financial incentives.

Faculty participation is imperative for ALN/DE programs to succeed. How do faculty from a Research I, state-related university perceive participation in ALN/DE? This exploratory study surveyed faculty use of computers in teaching and learning activities, including perceptions of motivating and inhibiting factors for participating in DE.

II. METHODS

With permission of Dr. Kristen Betts [29], a modified version of the survey she developed in 1998 was used [30]. Dr. Betts survey was developed for her dissertation research at George Washington University, in which she examined the relationships between 1) faculty participation and intrinsic motivation, 2) faculty participation and extrinsic motivation and 3) faculty participation and inhibiting factors. Her survey was developed using the current literature about faculty motivators and inhibitors as a guide, and has face validity. Unfortunately, since her survey had only been used once in her own study, there was no validity and reliability data as would be true with any new instrument. Her survey was appropriate for this study because it specifically addresses the issues of motivating and inhibiting factors for DE. The modifications made to the survey reflected only slight institutional differences.

The survey was distributed in April 1999 to all full-time faculty and twenty-five senior administrators, including all deans at a large urban, Research I state related institution. After accounting for faculty on leave (paid or unpaid) from the university, the target faculty population totaled 1312 faculty. After two weeks, a gentle reminder was sent to all members of the target population, faculty and administrators, thanking those who had already completed and returned the survey and offering to send another survey in the event the first copy had been misplaced. Two hundred sixty-three completed and usable faculty surveys were returned for a response rate of 20%. Eleven administrators returned the survey for a 44% response rate. The quantitative data was entered into a database and analyzed using SPSS, while the qualitative data was transcribed and analyzed using NUD*IST qualitative data analysis software. While the survey addressed many issues of faculty use of instructional technology in their teaching in the classroom and out, this paper will present only the top five factors that motivate and inhibit faculty participation in DE programs.

III. RESULTS

Faculty from every college in the institution was represented in the data. The largest percentage of total responses came from the College of Liberal Arts (16.7%), followed by the schools of business and medicine (14.1% and 12.5%, respectively).

One hundred and sixty-eight (63.9%) of the faculty respondents were male, while 94 (35.7%) were female. Twenty respondents (7.6%) were under 30 years of age, 117 (44.5%) were 30-45 years of age, 90 (34.2%) were 45-60 years of age, and 35 (13.3%) were over 60 years old. One hundred and twenty-six (47.9%) respondents were full professors, 74 (28.1%) were associate professors, 47 (17.9%) were assistant professors, and 16 (6.1%) were instructors. Two hundred and sixty respondents were full time faculty. While the survey was sent to full-time faculty, two respondents indicated they were part-time faculty and one person did not answer this item. One hundred and eighty-six (70.7%) were tenured, and 74 (28.3%) indicated they were not. Of the 74 non-tenured faculty, 28 (37.8%) were on tenure track, 36 (48.6%) were not on tenure track, and 10 (13.5%) did not indicate tenure track status. The sample resembled the demographic picture of the overall faculty of the institution as of the fall 1998. In addition, faculty were asked to self-identify whether they participated in DE initiatives. Thirty-eight (14.4%) faculty indicated they participated in DE. For the purpose of this study, this group is called “participators” and those who did not indicate participating in DE are called “non-participators.”

A total of eleven administrators returned the self-study survey: six deans, two vice presidents, one vice provost, one associate dean, and one acting assistant dean. Of the eleven, only nine completed all sections of the survey, including those relating to motivating and inhibiting factors.

A. Motivating Factors

Faculty and administrators were asked to rate from 5 to 1 (5 = strongly agree; 1 = strongly disagree) to what extent they believed 29 factors (see Table 1) had motivated or would motivate them to participate in DE. The results are presented based on mean scores in rank order high to low. The top five motivating factors for “participants” were personal motivation to use technology (M-1), opportunity to develop new ideas (M-12), opportunity to improve my teaching (M-28), opportunity to diversify program offerings (M-26) and greater flexibility for students (M-25). The top five motivating factors for non-participating faculty were opportunity to develop new ideas (M-12), technical support provided by the institution (M-19), personal motivation to use technology (M-1), intellectual challenge (M-17) and overall job satisfaction (M-18). The top five motivating factors for faculty, according to administrators, were personal motivation to use

technology (M-1), monetary support for participation (e.g., stipend, overload) (M-10), intellectual challenge (M-17), credit toward promotion and tenure (M-21) and release time (M-22).

No.	Factor
1	Personal motivation to use technology
2	Graduate training received
3	Opportunity for scholarly pursuit
4	Reduced teaching load
5	Opportunity to use personal research as a teaching tool
6	Requirement by department
7	Support and encouragement from dean or chair
8	Working conditions (e.g., hours, location)
9	Job security
10	Monetary support for participation (e.g., stipend, overload)
11	Expectation by university that faculty participate
12	Opportunity to develop new ideas
13	Visibility for jobs at other institutions/organizations
14	Professional prestige and status
15	Grants for materials/expenses
16	Support and encouragement from departmental colleagues
17	Intellectual challenge
18	Overall job satisfaction
19	Technical support provided by the institution
20	Career exploration
21	Credit toward promotion and tenure
22	Release time
23	Distance education training provided by the institution
24	Merit pay
25	Greater course flexibility for students
26	Opportunity to diversify program offerings
27	Ability to reach new audiences that cannot attend classes on campus
28	Opportunity to improve my teaching
29	Support and encouragement from institutional administrators

Table 1. Motivating (M) Factor List.

A comparison was made of the top five motivating factors across the three groups. All three groups rated “personal motivation to use technology” highly, with participants and administrators agreeing this is the top motivating factor, and non-participants rating it third. The only other similarity between the two faculty groups was in rating “opportunity to develop new ideas” highly (participants = 2nd; non-participants = 1st). Also, administrators and non-participants agreed that “intellectual challenge” was a strong motivator (administrators = 3rd; non-participants = 4th). Otherwise, there were no similarities between the three groups.

An analysis of variance (ANOVA) of mean scores was calculated to test for significant differences between the three group ratings on the twenty-nine motivating factors. The results revealed highly significant differences between the groups on several motivating factors. Highly significant differences ($p < .001$) were found for monetary support for participation (M-10), where administrators rated this factor 2nd, participating faculty rated it 23rd and non-participating faculty rated it 10th. Very significant differences ($p < .01$) were found for personal motivation to use technology (M1), reduced teaching load (M-4), credit toward promotion and tenure (M-21),

release time (M-22), and DE training provided by the institution (M-23). Non-participants rated factor M-1 3rd, while participants and administrators rated it 1st. Factor M-4 was rated extremely low by participants (27th), but less so by non-participants (19th) and administrators (16th). Both faculty groups rated factor M-21 much lower than administrators did, who rated it in the top five motivating factors. Participants and non-participants rated M-22 and M-23 lower than administrators, with administrators rating M-22 in the top five motivating factors. Significant difference ($p < .05$) was found for opportunity to use personal research as a teaching tool (M-5), support and encouragement from department colleagues (M-16), technical support provided by the institution (M-19), career exploration (M-20), and merit pay (M-24). Non-participating faculty rated factors M-16 and M-20 lower than administrators and participating faculty, and participants rated M-5, M-19 and M-24 lower than non-participants and administrators.

B. Inhibiting Factors

The faculty and administrators were asked to rate from 5 to 1 (5 = strongly agree; 1 = strongly disagree) to what extent they believed 17 factors (see Table 2) had inhibited or would inhibit them from participating in DE. The results are presented based on mean scores in rank order high to low. The top five inhibiting factors for participants in DE were lack of technical support provided by the institution (I-11), lack of release time (I-5), concern about faculty workload (I-1), lack of grants for materials/expenses (I-9), and concern about quality of courses (I-10). The top five inhibiting factors for non-participating faculty were lack of technical support provided by the institution (I-11), concern about quality of courses (I-10), concern about faculty workload (I-1), lack of distance learning training provided by institution (I-3) and lack of release time (I-5). The top five inhibiting factors for faculty, according to administrators, were lack of technical support provided by the institution (I-11), concern about faculty workload (I-1), lack of release time (I-5), lack of merit pay (I-12) and lack of grants for materials/expenses (I-9).

Factor #	Factor
1	Concern about faculty workload
2	Negative comments made by colleagues about distance education teaching experiences
3	Lack of distance education training provided by the institution
4	Lack of support and encouragement from departmental colleagues
5	Lack of release time
6	Lack of professional prestige
7	Lack of technical background
8	Lack of support and encouragement from dean or chair
9	Lack of grants for materials/expenses
10	Concern about quality of courses
11	Lack of technical support provided by the institution
12	Lack of merit pay
13	Lack of support and encouragement from institution administrators
14	Lack of monetary support for participation (e.g., stipend, overload)
15	Concern about quality of students
16	Lack of salary increase
17	Lack of credit toward promotion and tenure

Table 2. Inhibitor (I) Factor List.

All three groups rated lack of technical support provided by the institution (I-11) as the top inhibiting factor for faculty participation in DE. A comparison of responses from the two faculty groups indicate similarities in three of the other top five inhibiting factors, even though the rank order was different. Administrators agreed with both faculty groups on concern about faculty workload (I-1) and lack of release time (I-5) as top inhibiting factors. They agreed with participating faculty that lack of grants (I-9) is a strong inhibiting factor; but rated lack of merit pay (I-12) as 4th while participators rated this 15th and non-participators rated it 12th. Where concern about quality of courses (I-10) was rated 5th by participating faculty and 2nd by non-participating faculty, administrators rated this factor 6th. Lastly, non-participating faculty rated lack of DE training (I-3) 4th, while participating faculty and administrators both rated this factor 9th.

An analysis of variance (ANOVA) of mean scores was calculated to test differences between the three group ratings of the seventeen inhibiting factors. The results revealed significant differences among the three groups on “lack of merit pay” (I-12) and “lack of credit toward promotion and tenure” (I-17) ($p < .05$). The participating faculty rated factor I-12 15th, non-participating faculty rated this factor 12th, and administrators rated it 4th. Participators rated factor I-17 13th, non-participators rated it 16th, and administrators rated it 8th.

IV. DISCUSSION

This study asked how faculty from a Research I, state-related university, perceive participation in DE in general. “Personal motivation to use technology” was clearly a strong motive for participating in ALN/DE at this institution, as noted by all parties involved. The faculty, participators and non-participators, rated issues that could be considered intrinsic factors as motivating for participation in ALN/DE, while administrators indicated a perception that faculty would be more motivated by factors that could be considered extrinsic. Similar to Dillon and Walsh [22], intrinsic factors were defined for the purpose of this study as ones that come from within the individual or benefit the program and students (e.g., “improve teaching,” “greater flexibility for the students”). Extrinsic factors were defined for this study as ones relating to university administration support and encouragement to faculty to participate or that benefits only individual faculty member (e.g., “monetary support for participation” and “credit toward promotion and tenure”). These two categories of factors were supported through a factor analysis of all 46 motivating and inhibiting factor responses. Clearly, the administrators and faculty were not in agreement on what would motivate faculty to participate in ALN/DE programs.

The top inhibiting factors were rated very similarly across groups and all five top inhibiting factors appear to be more extrinsic in nature than intrinsic. Determining what factors would deter faculty from participating in ALN/DE appears easier than what would motivate.

The results of this study suggest that faculty are more likely to participate in ALN/DE programs due to interest in using computers in teaching, interest in exploring new opportunities for programs and students and interest in the intellectual challenge, rather than monetary or personal rewards. The inhibiting factors identified relate to issues essential for a program to be successful, i.e., institutional support for faculty, technical infrastructure and course development needs, supporting reports by Olcott and Wright [19] and Wolcott [20]. Teaching at a distance is not the same as teaching in the traditional classroom setting. New skills are required for the new environment. Attending to these concerns helps to minimize the inhibiting factors, but does not address motivating factors. While not all the inhibiting factors can be eliminated, recognition of these issues by all parties involved (e.g., faculty, administrators and students) may help in gaining

support and participation by faculty in developing and teaching ALN/DE course offerings. And while not all faculty members will ever participate in DE for many reasons, understanding what does motivate participators may provide much needed information to administrators for developing incentives and minimizing barriers.

This study supports the work reported by Dillon [21] and Dillon and Walsh [22] and adds to the literature defining and understanding ALN/DE faculty. DE has evolved since the World Wide Web emerged. With digitally based ALN/DE, faculty must be technically adept to be successful teaching a distance course; therefore, faculty participation will depend on faculty comfort in general and in teaching with computer technology. For faculty already comfortable, teaching at a distance is a challenge to their technical and intellectual skills, and an opportunity to reach out to new audiences. For faculty not comfortable with computers, teaching at a distance is more than a challenge. Administrators must recognize these differences and provide the necessary opportunities to develop online pedagogical skills, which will only happen when faculty are comfortable using technology in their teaching. Teaching at a distance is not for every faculty member, but should not be limited to those comfortable with computers. Trust and understanding by both sides, administrators and faculty, will help in alleviating the inhibiting factors. Providing the technical and individual support needed for successful ALN/DE will begin to capitalize on motivating factors.

V. LIMITATIONS

The author would like to note there are a couple of limitations to this study. First of all, the survey adapted from Dr. Kristen Betts' dissertation research does not have reliability and validity statistics. From a statistical perspective, this presents a problem in inferring the results of this study are reliable and valid. However, this is a descriptive study. It very well may be that every institution's response to this survey would be different based on institutional culture and past experience with innovation. Continued replication of this study will begin to provide enough data for reliability and validity evidence. The results of this study were similar to those of Dr. Betts. The top two motivating factors for participants in this study were in the top five motivating factors from her sample. One top five motivating factor for non-participants was in the top five from her sample, and two faculty motivating factors identified by administrators in this study were listed in the top five from her sample. These differences may merely reflect institutional differences.

The second limitation relates to the fact that faculty were asked to rate to what extent the factors listed had motivated/inhibited or would motivate/inhibit them to/from participation in DE. For a non-participant, responses may reflect an ideal situation (i.e., "I would be influenced if the motivating factor was offered") rather than institutional reality where the factor is not offered. Participant responses may have been influenced by institutional reality, rather than considering the factors in an ideal situation. For instance, if credit toward P&T is not available, then it may not have been noted as a motivating factor, but the lack thereof might have been noted more likely as an inhibiting factor. Replication of this study will need to be mindful of this concern.

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