Factors Influencing Faculty Participation & Retention In Online & Blended Education

Dr. Kristen Betts
Drexel University
kbetts@drexel.edu

Abstract

Faculty members play a central role in the development, implementation, and long-term sustainability of online and blended education programs. Therefore, faculty recruitment and retention strategies for these programs must align with the needs of the faculty. This article highlights the results of an institutional study conducted at a public comprehensive university in 2012 that examined factors influencing faculty participation and retention in online and blended education. This article also provides a comparative overview of the results of a similar institutional study conducted at The George Washington University (GWU) in 1997 that examined factors influencing faculty participation in distance education. The original surveys from the 1997 GWU study were updated for the 2012 Armstrong study. The results revealed that while technology and learning platforms have continued to evolve over the past 15 years, many of the needs and concerns of faculty are relatively similar. The results also revealed that faculty involvement is quintessential in the development and expansion of online and blended programs as well as in the design of faculty development initiatives.

Introduction

Armstrong Atlantic State University (Armstrong) is a public comprehensive institution that offers certificate programs and degree programs on the associate's, bachelor's, master's, and doctoral level. Armstrong is part of the University System of Georgia (USG), which includes 31 higher education institutions (USG, n.d.). In support of Armstrong's strategic goals and in alignment with USG's strategic plan, Armstrong has been increasing the number of courses and programs that are offered through online and blended formats. The long-term sustainability of online and blended programs is dependent upon having faculty members who will develop and teach courses within the programs. Therefore, an institutional study was conducted by Armstrong's Office of Online & Blended Learning in collaboration with the Educational Technology Committee, Information Technology Services, and Chief of Staff in the President's Office to identify factors that motivate and inhibit faculty participation and retention in online and blended education. The results of the study were used to design and implement new faculty development initiatives that support faculty participation and retention in online and blended education.

The Armstrong institutional study built upon research conducted at The George Washington University (GWU) in 1997 that surveyed faculty to examine factors influencing faculty participation in distance education (Betts, 1998). The GWU survey instruments, which have been used in 50 studies nationally and internationally between 1999 and 2013, were updated and used in the Armstrong study. A compendium article entitled "Build It But Will They Teach?: Strategies for Increasing Faculty Participation & Retention in Online & Blended Education" provides an overview of Armstrong's integration of the 2012 institutional data and feedback between July 1, 2012 and January 1, 2014 to design new faculty development initiatives (e.g., workshops, eLearning Faculty Status, Teaching Fellows Program, Faculty Showcase, USG webcasts, and Quality Matters), an online course development process, and an online course review process.

Institutional Study

This article provides highlights from Armstrong's institutional study including: population, purpose, research questions, methodology, reliability, definition of terms, demographics, results, discussion, and conclusion. It should be noted that the term "distance education" was used in the Armstrong study since it was in alignment with terminology used by the University System of Georgia, which includes online and blended program formats. The term also aligned with the terminology used in the GWU study.

Population. The population included 291 faculty and four deans employed at Armstrong during spring 2012. Of the 291 faculty, 175 responded representing a 60% response rate. All four deans completed the survey (n=4), resulting in a 100% response rate. It should be noted that, as part of the survey, faculty were asked to self-identify as "having participated in distance education" and "not having participated in distance education." Of the 175 respondents, 90 (51%) self-identified as being faculty who have participated in distance education (i.e., have taught, co-taught or developed distance education courses) and 85 (49%) self-identified as being faculty who have not participated in distance education (i.e., have not taught, co-taught or developed distance education courses).

Purpose. The purpose was of the study was threefold. The first purpose was to identify factors that motivate and inhibit faculty participation in distance education at Armstrong. The second purpose of the study was to address institutional factors that inhibit faculty participation in online education. The third purpose was to design new faculty development initiatives to support faculty participation and retention in distance education.

Research Questions. There were five research questions for this study.

1. What factors have motivated faculty to participate in distance education?
2. What factors would motivate faculty, who have never participated in distance education, to participate in distance education?
3. What factors would inhibit continued faculty participation in distance education by faculty, who are currently participating or previously have participated in distance education?
4. What factors would inhibit future participation in distance education by faculty, who have never participated in distance education?
5. Are there any significant differences between what faculty identify as factors that motivate and inhibit faculty participation in distance education and what deans perceive as factors that motivate and inhibit faculty participation in distance education?

Methodology. Three survey instruments were used in this study: (1) a survey for faculty who self-identified as having participated in distance education; (2) a survey for faculty who self-identified as not having participated in distance education; and (3) a survey for the deans. The survey instruments, originally from the GWU 1997 study, were updated in collaboration with the survey developer, approved by Armstrong's Institutional Review Board (IRB), pilot tested using the test-retest reliability method, and then sent to 291 full-time faculty employed at Armstrong in May 2012.

The survey instruments were sent out by email with three reminders.[1] The collected data was analyzed using the software program Statistical Package for the Social Sciences (SPSS). Descriptive analyses included means, standard deviations, ranges, frequencies, and percentages. Inferential statistics were used to analyze the data including crosstabs, and multivariate analysis of variance (MANOVA). The Scheffe post hoc method was selected to be used with this study because it tests the "dependent variables between all possible pairs of group differences that are tested after the data patterns are established" (Hair, Black, Babin & Anderson, 2009, p. 379). The Scheffe post hoc method is also the most conservative method with respect to Type I error.

Reliability. The surveys examined 29 motivating and 20 inhibiting factors that influence faculty participation in distance education. These survey items were set up with a five-point Likert scale with the response options ranging from 1 ("strongly disagree") to 5 ("strongly agree") for rating the items. The majority of the 29 motivating and 20 inhibiting factors came from the GWU surveys with minor modifications based on lexicon and feedback from the pilot study and recommendations by the Educational Technology Committee at Armstrong. Cronbach's alpha, which measures internal consistency, was used to estimate the reliability of the scaled items. For this study, the 29 motivating items and 20 inhibiting items yielded Cronbach alphas of .953 and .924 respectively, indicating a high degree of internal consistency.
The list of 29 motivating factors from the Armstrong study is included below.

1. Personal motivation to use technology
2. Opportunity for scholarly pursuit
3. Release time (e.g., reduced teaching load)
4. Requirement by department
5. Support and encouragement from dean or program director/chair

6. Job security
7. Financial compensation for participation (e.g., stipend, overload, merit pay)
8. Support and encouragement from program director/chair
9. Institutional pressure/expectation
10. Opportunity for grants for research
11. Support and encouragement from departmental colleagues
12. Intellectual challenge
13. Overall job satisfaction
14. Part of teaching load (assigned courses to teach)
15. Technical support provided by the institution
16. Career exploration
17. Credit toward promotion and tenure
18. Distance education professional development/training provided by the institution
19. Greater course flexibility for students
20. Great course flexibility for faculty
21. Opportunity to diversify program offerings
22. Recognition and awards
23. Ability to reach students who cannot come to campus
24. Opportunity to diversify my teaching
25. Access to adequate equipment (e.g., computer, software, etc.) to support distance education teaching
26. Support and encouragement from institution's administrators
27. Opportunity to increase access to students with disabilities
28. Technology incentives for faculty involved in distance education such as teaching and/or course development (e.g., Laptop, iPad other hardware, software, etc.)
29. To support University System of Georgia in increasing the number of available online courses to students across the state

The list of the 20 inhibiting factors from the Armstrong study is included below.

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 (e.g., no reduced teaching load)
6. Lack of professional prestige
7. Lack of a technological background
8. Lack of support and encouragement from dean
9. Lack of support and encouragement from program director/chair
10. Lack of financial compensation for participation (e.g. stipend, overload, merit pay)
11. Concern about quality of courses
12. Lack of technical support provided by the institution
13. Lack of adequate equipment (e.g., computer, software, etc.) to support distance education teaching
14. Lack of support and encouragement from institution's administrators
15. Institutional pressure/expectation
16. Concern about quality of students
17. Lack of recognition and awards
18. Concern about negative press surrounding distance education
19. Lack of credit toward tenure and promotion
20. Lack of technology incentives for faculty who are involved in distance education (e.g., Laptop, iPad, other hardware, software, etc.)

It should be noted that the original GWU study broke the list of factors down by intrinsic and extrinsic motivation based on the study's conceptual framework that included two theories of human motivation (Betts, 1998). The first theory was intrinsic motivation (self-determinism and competence) based on the research of Edward L. Deci and Richard M. Ryan. The second theory was extrinsic motivation (achievement motivation) based on the research of John W. Atkinson. The list of 30 motivating factors from the GWU study is included below.
Intrinsic factors included:

1. Personal motivation to use technology
2. Opportunity for scholarly pursuit
3. Opportunity to use personal research as a teaching tool
4. Opportunity to influence social change
5. Opportunity to develop new ideas
6. Intellectual challenge
7. Overall job satisfaction
8. Career exploration
9. Opportunity to improve teaching

Extrinsic factors included:

1. Job security
2. Working conditions (e.g., hours, location)
3. Increase in salary
4. Requirement by department
5. Quality of students
6. Support and encouragement from dean or chair
7. Release time
8. Monetary support for participation (e.g., stipend, overload)
9. Support and encouragement from departmental colleagues
10. Expectation by university that faculty participate
11. Visibility for jobs at other institutions/organizations
12. Professional prestige and status
13. Grants for materials/expenses
14. Support and encouragement from institution administrators
15. Course assignments
16. Technical support provided by the institution
17. Distance-education training provided by the institution
18. Credit toward promotion and tenure
19. Merit pay
20. Royalties on copyrighted materials
21. Recognition and awards

The original GWU study provided a list of 19 inhibiting factors that are included below.

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

Definition of Terms. Provided below are the definitions that were included in the survey invitation and on the surveys as part of the Armstrong institutional study.

Distance Education: Includes fully online, partially online, and hybrid course formats.

Armstrong Course Formats:

1. Fully Online Course - All or nearly all the class sessions are delivered via technology (96% to 100% online).
2. Partially Online Course - Technology is used to deliver more than 50% of class sessions (51% to 95% online).
3. Hybrid Course - Technology is used to deliver 50% or less of class sessions (1 class session up to 50% online).
4. Campus/On-site Course - No class sessions are replaced by technology or online.

Armstrong Program Formats:

1. Online Program - Includes only fully online courses.
   Note: Does not include partially online or hybrid courses.
2. Blended Program - Includes partially online and fully online courses.
   Note: Does not include hybrid or campus/on-site courses.
3. Campus/On-site Program - Includes three types of campus/on-site courses:

   - Hybrid courses;
   - Technology enhanced courses; and
   - "No technology" courses.

Have participated in distance education: have taught, co-taught or developed distance education courses which includes fully online, partially online, and hybrid courses.

Have not participated in distance education: have not taught, co-taught or developed distance education courses which includes fully online, partially online, and hybrid courses.

Distance education training: Refers to workshops, Boot Camps, and/or seminars that focus on instructional delivery for fully online, partially online, and/or hybrid courses using the internet or a myriad of technologies.

Results

The results from Armstrong's institutional study are broken down by faculty who have participated in distance education, faculty who have not participated in distance education, and deans. Comparative data is provided for distance education participators, non-participators, and the deans.

Distance Education Participators. Ninety of the 175 respondents (51%) self-identified as having participated in distance education. The breakdown of the participators included professors (21%), associate professors (23%), assistant professors (28%), and instructors (28%) who taught credit courses on campus in Savannah, Georgia to students primarily on the bachelor's level (91%). Approximately, 40% of the distance education participators also taught on the master's level. Of the respondents, 70% were female, 27% were male, and 3% selected "prefer not to respond." Over half of the distance education participators were Baby Boomers (born between 1947-1964) (53%) while 29% were Gen X (born between 1965-1981). Forty-three percent of the participators were tenured. Of the respondents who were not tenured, 69% were in non-tenure track positions. The majority of the distance education participators had been employed at Armstrong 1-4 years (36%) and 10+ years (34%).

Over half of the participators (55%) reported they had taken a distance education course. Of these faculty, the majority had taken a fully online course (77%). The data showed that 19% had completed a degree via distance education with 56% of these faculty reporting the program format as online and 44% reporting the program format as blended. Approximately three-quarters of the participators reported they had not taught a distance education course prior to working at Armstrong. Sixty-one percent of the participators shared they had been involved in distance education (e.g., teaching, co-teaching, developing courses, and/or consultation) for five years or less. Approximately one quarter of the faculty (24%) had been involved in distance education for 10 or more years.

Distance education participators were asked about their attitude toward online programs and blended programs. The data showed that 62% were positive, 20% neutral, and 18% were negative toward online programs. When asked about blended programs, the data revealed that 84% of the distance education participators were positive, 11% were neutral, and 5% were negative.

Distance Education Non-Participators. Eighty-five faculty respondents (49%) self-identified as not having participated in distance education. The breakdown of the participators included professors (26%), associate professors (22%), assistant professors (35%), and instructors (15%) who taught credit courses on campus in Savannah, Georgia to students primarily on the bachelor's level (88%). Nineteen percent of the non-participators taught on the master's level. Of the respondents, 46% were male, 39% were female, and 15% selected "prefer not to respond." Forty-seven percent of the non-participators were Gen X (born between 1965-1981) while 35% were Baby Boomers (born between 1947-1964). Forty-seven percent of the non-participators were tenured. Of the respondents who were not tenured, 50% were in tenure track positions. Almost half of the non-participators had been employed at Armstrong 10 or more years (46%) while 22.5% had been employed 5-9 years, 22.5% 1-4 years, and 9% less than one year. One quarter of the non-participators had taken a distance education course (25%) and 5% had completed a degree via distance education.

Less than 10% of the non-participators stated they had been asked to teach a distance education course (9%), develop a distance education course (7%), or co-teach a distance education course (4%). However, faculty decided not to get involved. Sample reasons for not getting involved included lack of interest, concern about being able to replicate a hands-on lab experience online, and the program was being revitalized at that time. Thirty-nine percent of the distance education non-participators stated they had contemplated teaching or co-teaching a distance education course. Sample reasons for not getting involved included, have not had the time; not an option with current workload; project fell through; lack of time and resources, and I have not been asked. Thirty-nine percent of non-participators stated they had contemplated teaching, co-teaching, or developing a distance education course. Sample reasons for not getting involved included lack of time and resources, lack of support, too many other responsibilities, too time consuming, and project fell through. When asked about interest in teaching or co-teaching a distance education course in the future, 21% said they were interested, 40% said they were possibly interested, and 39% said they were not interested. With regards to developing a distance education course in the future, 19% said they were interested, 47% said they were possibly interested, and 34% said they were not interested.

Distance education non-participators were asked about their attitude toward online programs and blended programs. The data showed that 18% were positive, 29% neutral, and 53% were negative toward online programs. When asked about blended programs, the data revealed that 42% of the distance education non-participators were positive, 40% were neutral, and 18% were negative.

Deans. Four deans completed the survey (100%) at Armstrong. All of the deans reported that they teach courses on campus at Armstrong during the academic year. Of the deans, three had been employed at Armstrong for 3-5 years (75%) and one dean had been employed 10 or more years (25%) at Armstrong. The deans were predominately female (75%) and 100% were Baby Boomers (born between 1947-1964).

One of the four deans reported taking a distance education course offered through a hybrid format. None of the deans had completed any degrees via distance education. Two of the deans shared they had taught a distance education course prior to working at Armstrong.

The deans were asked about their attitude toward online programs and blended programs. The data showed that 25% were positive and 75% neutral toward online programs. When asked about blended programs, the data revealed that 75% of the deans were positive and 25% were neutral.

Factors That Motivate Faculty to Participate in Distance Education. As part of this study, faculty and deans were asked to rate 29 factors that have motivated or would motivate faculty to participate in distance education. The question was structured to align with each of the three groups: faculty who have participated in distance education, faculty who have not participated distance education, and deans. The distance education participators were asked to "rate the extent to which you agree the factors listed below **have motivated** you to participate (teach and/or develop courses) in distance education." The distance education non-participators

were asked to "rate the extent to which you agree the factors listed below **would motivate** you to participate (teach and/or develop courses) in distance education." The deans were asked to "rate the extent to which you agree the factors listed below **would motivate** the faculty in your college to participate (teach and/or develop courses) in distance education." As previously shared, the majority of the 29 motivating factors came from the GWU survey with minor modifications based on lexicon and feedback from the pilot study and recommendations by the Educational Technology Committee at Armstrong. A five-point Likert scale was used (1-Strongly Disagree to 5-Strongly Agree) for rating the 29 motivating factors.

Table 1 provides a comparative review of the means and standard deviations for the factors with the top five highest mean scores (i.e., highest levels of agreement) for motivating faculty participation in distance education as rated by the faculty and deans at Armstrong.

Table 1

Top Five Highest Mean Scores for Factors that Have Motivated/Would Motivate Faculty Participation in Distance Education at Armstrong with Standard Deviations in Parentheses

	Faculty Who Have Participated in Distance Education	Faculty Who Have Not Participated in Distance Education	Deans
1	Personal motivation to use technology 4.26 (1.02)	Financial compensation for participation (e.g., stipend, overload) 3.76 (1.42)	Release time (e.g., reduced teaching load) 4.75 (0.50)
2	Greater course flexibility for students 4.07 (1.02)	Release time (e.g., reduced teaching load) 3.65 (1.40)	Technical support provided by institution 4.50 (0.57)
3	*Greater course flexibility for faculty 4.01(1.02)	Access to adequate equipment (e.g., computer, software, etc.) to support distance education teaching 3.54 (1.42)	Financial compensation for participation (e.g., stipend, overload) 4.50 (0.57)
4	Ability to reach students who cannot come to campus 3.88 (1.34)	Opportunity to increase access to students with disabilities 3.52 (1.28)	Technology incentives for faculty who are involved in distance education (e.g., Laptop, iPad other hardware, software, etc.) 4.25 (0.96)
5	Overall job satisfaction 3.85 (1.15)	Technical support provided by institution 3.49 (1.39)	Access to adequate equipment (e.g., computer, software, etc.) to support distance education teaching 4.25 (0.96)

Note: An asterisk (*) indicates commonality between faculty who have participated in distance education and faculty who have not participated in distance education. A plus (+) indicates commonality between faculty who have participated in distance education and deans. Shading in the cells indicates common factors between faculty who have not participated in distance education and deans.

Table 2 provides a comparative review of the means and standard deviations of the bottom five lowest mean scores for factors (i.e., highest levels of agreement) motivating faculty to participate in distance education as rated by the faculty and deans at Armstrong.

Table 2

Bottom Five Lowest Mean Scores for Factors that Have Motivated/Would Motivate Faculty Participation in Distance Education at Armstrong with Standard Deviations in Parentheses

	Faculty Who Have Participated in Distance Education	Faculty Who Have Not Participated in Distance Education	Deans
25	+Opportunity for grants for research 2.35 (21.66)	Support and encouragement from institution's administrators 3.0 (1.28)	+Opportunity for grants for research 3.00 (1.15)
26	*Credit toward promotion and tenure 2.26 (1.72)	*Credit toward promotion and tenure 2.94 (1.61)	Opportunity to diversity my teaching 2.75 (0.50)
27	Financial compensation for participation (e.g., stipend, overload) 2.05 (1.79)	Institutional Pressure/expectation 2.78 (1.31)	Part of teaching load (assigned courses to teach) 2.50 (1.29)
28	Release time (e.g., reduced teaching load) 1.96 (1.78)	To support University System of Georgia in increasing number of available online courses to students across state 2.58 (1.48)	Institutional Pressure/expectation 2.50 (1.29)
29	*Recognition and awards 1.93 (1.41)	*Recognition and awards 2.48 (1.34)	Requirement by my department 2.25 (0.96)

Note: An asterisk (*) indicates commonality between faculty who have participated in distance education and faculty who have not participated in distance education. A plus (+) indicates commonality between faculty who have participated in distance education and deans. Shading in the cells indicates common factors between faculty who have not participated in distance education and deans.

Faculty were asked to provide additional factors that have motivated them or would motivate them to participate in distance education. The primary motivating factors for faculty who have participated in distance education were related to flexibility; interest level; new learning experience; and positive student reaction. For faculty who have not participated in distance education, the primary motivating factors were related to: being able to demonstrate quality; having access to technology that would provide the ability to see and communicate with students at the same regular time; and financial compensation.

Factors That Inhibit Faculty Participation in Distance Education. Faculty and deans were asked to rate 20 factors that would inhibit faculty participation in distance education. The distance education participators were asked to "rate the extent to which you agree the factors listed below **would inhibit** your decision to continue participating (teach and/or develop courses) in distance education." The distance education non-participators were asked to "rate the extent to which you agree the factors listed below **would inhibit** your decision to participate (teach and/or develop courses) in distance education." The deans were asked to "rate the extent to which you agree the factors listed below **would inhibit** the faculty in your College from participating (teach and/or develop courses) in distance education." As shared, the majority of the 20 inhibiting factors came from the GWU survey with minor modifications based on lexicon and feedback from the pilot study and recommendations by the Educational Technology Committee at Armstrong. A five-point Likert scale was used (1-Strongly Disagree to 5-Strongly Agree) for rating the 20 inhibiting factors.

Table 3 provides a comparative review of the top five highest mean scores for factors inhibiting faculty

participation in distance education as rated by the faculty and deans at Armstrong.

Table 3

Top Five Highest Mean Scores for Factors that Would Inhibit Faculty Participation in Distance Education at Armstrong with Standard Deviation in Parentheses

	Faculty with Experience in Distance Education	Faculty with No Experience in Distance Education	Deans
1	*+Lack of adequate equipment (e.g., computer, software, etc.) to support distance education teaching 4.26 (1.03)	*Concern about quality of courses 4.33 (1.10)	+Lack of adequate equipment (e.g., computer, software, etc.) to support distance education teaching 4.75 (0.50)
2	*+Lack of technical support provided by the institution 3.86 (1.27)	*Concern about faculty workload 4.31 (1.22)	+Lack of technical support provided by the institution 4.75 (0.50)
3	*+Concern about faculty workload 3.75 (1.28)	*Lack of adequate equipment (e.g., computer, software, etc.) to support distance education teaching 4.15 (1.31)	+Concern about faculty workload 4.75 (0.50)
4	Lack of release time (e.g., no reduced teaching load) 3.59 (1.43)	Concern about quality of the students 4.13 (1.11)	Lack of a technological background 4.50 (0.58)
5	*Concern about quality of courses 3.54 (1.37)	*Lack of technical support provided by the institution 4.07 (1.31)	Lack of distance education training provided by the institution 4.50 (0.58)

Note: An asterisk (*) indicates commonality between faculty who have participated in distance education and faculty who have not participated in distance education. A plus (+) indicates commonality between faculty who have participated in distance education and deans. Shading in the cells indicates common factors between faculty who have not participated in distance education and deans.

Table 4 provides a comparative review of the means and standard deviations of the bottom five lowest mean scores for factors inhibiting faculty participation in distance education as rated by the faculty and deans at Armstrong.

Table 4

Bottom Five Lowest Mean Scores for Factors that Would Inhibit Faculty Participation in Distance Education at Armstrong with Standard Deviation in Parentheses

	Faculty Who Have Participated in Distance Education	Faculty Who Have Not Participated in Distance Education	Deans
16	Negative comments made by colleagues about distance education	Lack of professional prestige 3.07 (1.45)	Lack of support and encouragement from program director/chair

	teaching experience 2.77 (1.25)		3.75 (0.96)
17	*Lack of credit toward tenure and promotion 2.66 (1.63)	*Lack of credit toward tenure and promotion 3.05 (1.67)	Lack of support and encouragement from departmental colleagues 3.75 (0.96)
18	*Lack of a technological background 2.60 (1.48)	*Concern about negative press surrounding distance education 2.97 (1.44)	Lack of support and encouragement from institution's administrators 3.50 (1.00)
19	*Concern about negative press surrounding distance education 2.48 (1.32)	*Lack of a technological background 2.92 (1.44)	Lack of support and encouragement from deans 3.25 (0.50)
20	*Lack of recognition and awards 2.3 (1.26)	*Lack of recognition and awards 2.48 (1.37)	Lack of professional prestige 3.25 (0.50)

Note: An asterisk (*) indicates commonality between faculty who have participated in distance education and faculty who have not participated in distance education. A plus (+) indicates commonality between faculty who have participated in distance education and deans. Shading in the cells indicates common factors between faculty who have not participated in distance education and deans.

Faculty who have participated in distance education experience were asked to provide additional factors that would inhibit their continued participation in distance education. The primary inhibiting factors for distance education participators were related to alignment with new and changing compliance issues; concern about micromanagement of course development and delivery; effect on future promotion; browser compatibility issues; and overall time commitment. Distance education non-participators were asked to provide additional factors that would inhibit their participation in distance education. Their primary inhibiting factors were related to assurance that class size would not be big due to grading and communication logistics; concern about quality; and concern about how lab courses could be taught online.

Interest in Faculty Development for Online & Blended Education. The survey asked faculty to share their interest in attending faculty development for online and blended education. They were provided with faculty development options for fully online, partially online, and hybrid instruction. Additionally, they were provided with options for fully online, partially online, and hybrid course development. Over two thirds of the faculty who have participated in distance education indicated interest in faculty development for fully online (72%), partially online (66%), and hybrid (70%) instruction as well as fully online (73%), partially online (66%), and hybrid (69%) course development. Approximately half of the faculty who had no distance education experience indicated interest in faculty development for partially online (46%) and hybrid (58%) instruction as well as partially online (46%) and hybrid (54%) course development. Just over one quarter indicated interest in faculty development for fully online instruction (29%) and fully online course development (29%). Three of the deans responded to the question regarding interest in attending faculty development. All of the respondents (100%) indicated they would be interested in attending faculty development for partially online and hybrid instruction as well as partially online and hybrid course development. The respondents indicated an interest in attending faculty development for fully online course development (100%) and fully online instruction (33.3%). Table 5 provides the percentage of faculty who said "yes" they were interested in attending the different types of faculty development.

Table 5

Faculty Interest in Faculty Development for Instruction & Course Development at Armstrong

	Fully Online	Partially Online	Hybrid Instruction	Fully Online Course	Partially Online	Hybrid Course

	Instruction	Instruction		Development	Course Development	Development
Faculty Who Have Participated in Distance Education	72%	66%	70%	73%	66%	69%
Faculty Who Have Not Participated in Distance Education	29%	46%	58%	29%	46%	54%

A multivariate analysis of variance (MANOVA) was run to determine the relationship among what participators, non-participators, and deans identified as factors that motivate faculty participation and inhibit faculty participation in distance education. Post hoc comparisons were performed using the Scheffe post hoc method. Table 6 reveals that 15 of 29 factors indicated significant differences among what participators, non-participators, and deans identified as factors that motivate faculty to participate in distance education. In most cases, the significant difference was between faculty who have participated in distance education and faculty who have not participated in distance education.

Table 6

Multiple Comparisons for Motivating Factors, Scheffe Post Hoc Analysis

Dependent Variable	Role	Role	Mean Difference (I-J)	Sig.
Personal motivation to use technology	Distance education participators	Distance education non-participators	.90689*	.000
	Distance education non-participators	Distance education participators	-.90689*	.000
Release time (e.g., reduced teaching load)	Distance education participators	Distance education non-participators	-1.68783*	.000
	Distance education non-participators	Distance education participators	1.68783*	.000
	Distance education participators	Deans	-2.78704*	.004
	Deans	Distance education participators	2.78704*	.004
Financial compensation for participation (e.g., stipend, overload)	Distance education participators	Distance education non-participators	-1.71252*	.000
	Distance education non-participators	Distance education participators	1.71252*	.000
	Distance education participators	Deans	-2.45062*	.015
	Deans	Distance education participators	2.45062*	.015
Opportunity for grants for research	Distance education participators	Distance education non-participators	-.95591*	.001
	Distance education non-participators	Distance education participators	.95591*	.001
Intellectual challenge	Distance education participators	Distance education non-participators	.59788*	.019

	Distance education non-participators	Distance education participators	-.59788*	.019
Overall job satisfaction	Distance education participators	Distance education non-participators	.80678*	.001
	Distance education non-participators	Distance education participators	-.80678*	.001
Technical support provided by the institution	Distance education participators	Distance education non-participators	-.82955*	.003
	Distance education non-participators	Distance education participators	-.82955*	.003
	Distance education participators	Deans	-1.84568*	.042
	Deans	Distance education participators	1.84568*	.042
Greater course flexibility for students	Distance education participators	Distance education non-participators	.89947*	.000
	Distance education non-participators	Distance education participators	-.89947*	.000
Greater course flexibility for faculty	Distance education participators	Distance education non-participators	.72679*	.002
	Distance education non-participators	Distance education participators	-.72679*	.002
Opportunity to diversify program offerings	Distance education participators	Distance education non-participators	.64131*	.017
	Distance education non-participators	Distance education participators	-.64131*	.017
Recognition and awards	Distance education participators	Distance education non-participators	-1.82500*	.039
	Distance education non-participators	Distance education participators	1.82500*	.039
Ability to reach students who cannot come to campus	Distance education participators	Distance education non-participators	.74802*	.008
	Distance education non-participators	Distance education participators	-.74802*	.008
Opportunity to diversify my teaching	Distance education participators	Distance education non-participators	.65834*	.012
	Distance education non-participators	Distance education participators	-.65834*	.012
To support University System of Georgia in increasing the number of available online courses to students across the state	Distance education participators	Distance education non-participators	.60417*	.048
	Distance education non-participators	Distance education participators	-.60417*	.048
Technology incentives for faculty who are involved in distance education (e.g., Laptop, iPad	Distance education participators	Distance education non-participators	-.82892*	.012
	Distance education non-participators	Distance education participators	.82892*	.012

other hardware, software, etc.)					

*The mean difference is significant at the .05 level.

Table 7 reveals that 5 of 20 factors indicated significant differences between what participators, non-participators, and deans identified as factors that would inhibit faculty participation in distance education. The significant differences were found primarily between faculty who have participated in distance education and faculty who have not participated in distance education.

Table 7

Multiple Comparisons for Inhibiting Factors, Scheffe Post Hoc Analysis

Dependent Variable	Role	Role	Mean Difference (I-J)	Sig.
1. Concern about faculty workload	Distance education participators	Distance education non-participators	-.56148*	.032
	Distance education non-participators	Distance education participators	.56148*	.032
1. Negative comments made by colleagues about distance education teaching experiences	Distance education participators	Distance education non-participators	-.53932*	.048
	Distance education non-participators	Distance education participators	.53932*	.048
1. Lack of a technological background	Distance education participators	Deans	-1.89744*	.041
	Deans	Distance education participators	1.89744*	.041
1. Concern about quality of courses	Distance education participators	Distance education non-participators	-.795500*	.001
	Distance education non-participators	Distance education participators	.795500*	.001
1. Concern about quality of students	Distance education participators	Distance education non-participators	-.96653*	.000
	Distance education non-participators	Distance education participators	.96653*	.000

*The mean difference is significant at the .05 level.

Discussion

This institutional study revealed that all four colleges within Armstrong had faculty participating in distance education. Of the 175 respondents, there was almost an even split among faculty who self-identified as having participated in distance education (51%) and not having participated in distance education (49%). The percentage of faculty who identified as having tenure was similar for distance education participators (43%) and non-participators (47%).

The majority of distance education participators were female and Baby Boomers who were not tenured or were not in tenure track position. The participators had been involved in teaching distance education courses (83%) and developing distance education courses (66%). Over half of the participators had taken an online course (55%) and approximately one-fifth had completed an online program (19%). The majority of the distance

education participators had a positive attitude toward distance education programs. The active participation of these faculty members may be associated with the fact that they were not involved in the tenure and promotion process. The majority of distance education participators indicated an interest in faculty development for both instruction and course development with fully online, partially online, and hybrid courses.

The majority of the faculty who had not participated in distance education responded as being male and Gen X. Distance education non-participators were more positive about blended programs than online programs. Approximately half of the respondents indicated an interest in attending faculty development for partially online and fully online courses. Just over one-third of the non-participators shared that they had contemplated teaching or co-teaching a distance education course (33%). Less than 10% shared they had been asked to teach, develop, or co-teach a distance education course. The reasons for not participating primarily related to lack of time, need for support, and concerns about quality.

The deans at Armstrong were predominately female and all were Baby Boomers. All of deans had faculty within their college who were involved in online and blended education. One of the four deans had taken a distance education course offered through a hybrid format. The majority of the deans were positive toward blended programs and neutral toward online programs. The deans also indicated high interest in attending faculty development for partially online and hybrid instruction; partially online and hybrid course development; and online course development.

The results of the Armstrong institutional study showed similarities to the GWU institutional study. The GWU study indicated that for faculty who have participated in distance education, intrinsic factors had a positive effect on distance education participation. The primary factors for motivating distance education participators at GWU to participate in distance education included the ability to reach new audiences that cannot attend classes on campus, opportunity to develop new ideas, personal motivation, intellectual challenge, and overall job satisfaction (see Table 8). Extrinsic factors, such as credit toward promotion and tenure, recognition and awards, and merit pay, were not top motivational factors for distance education participators. Concurrently, the primary inhibiting factors for the GWU distance education participators included lack of release time, lack of technical support provided by the institution, concern about faculty workload, lack of release time, lack of grants for materials/expenses, and concern about the quality of the courses (see Table 9).

Intrinsic motivation had a positive affect on distance education participation at Armstrong for faculty who had participated in distance education, which was similar to the GWU study. Primary factors for motivating distance education participators at Armstrong to participate in distance education included personal motivation to use technology, greater course flexibility for students and faculty, and ability to reach students who cannot come to campus. Extrinsic factors such as credit toward promotion and tenure, financial compensation, and recognition and rewards were not top motivational factors for distance education participators. The primary inhibiting factors for the distance education participators at Armstrong included lack of adequate equipment, lack of technical support, concern about faculty workload, and lack of release time.

The GWU study revealed that a combination of both extrinsic and intrinsic factors were among the top factors for motivating faculty who had not participated in distance education to participate in the future. The primary motivating factors included increase in salary, monetary support for participation (e.g., stipend, overload), opportunity to develop new ideas, working conditions (hours, location), and intellectual challenge (see Table 8). Inhibiting factors for non-participators at GWU included concern about faculty workload, lack of technical support provided by the institution, lack of release time, concern about quality of courses, and lack of grants for materials/expenses (see Table 9).

At Armstrong, extrinsic factors were among the top factors for motivating faculty who had not participated in distance education to participate in the future. For non-participators, the primary motivating factors included financial compensation for participation, release time as well as access to adequate equipment (e.g., computer, software, etc.) to support distance education teaching and technical support provided by the institution. Distance education non-participators at Armstrong identified many of the same inhibiting factors as the non-participators at GWU, including concerns about quality of courses, concern about faculty workload, lack of adequate equipment to support distance education teaching, and lack of release time.

The deans at GWU identified extrinsic factors as the primary factors for motivating faculty to participate in

distance education. The primary factors identified by the deans for motivating faculty participation in distance education included monetary support for participation, increase in salary, credit toward tenure and promotion, and release time (see Table 8). The primary factors identified by the GWU deans for inhibiting faculty participation in distance education included lack of technical support provided by the institution, lack of distance education training by the institution, concern about faculty workload, lack of support and encouragement by departmental colleagues, and lack of release time (see Table 9).

The deans at Armstrong identified primarily extrinsic factors, like the GWU deans, to motivate faculty participation in distance education. The primary factors identified by the deans at Armstrong for motivating faculty participation in distance education included release time, technical support provided by the institution, financial compensation for participation, technology incentives for faculty who are involved in distance education, and access to adequate equipment. Similar to the GWU deans, the primary factors the Armstrong deans identified for inhibiting faculty participation in distance education included lack of adequate equipment to support distance education teaching, lack of technical support provided by the institution, concern about faculty workload, lack of technological background, and lack of distance education training provided by the institution.

It should be noted when reviewing the results of the GWU study that there was only one common factor between the *distance education participators* and *deans* and one common factor between the *distance education participators* and *distance education non-participators* when reviewing the top five highest mean scores for factors motivating faculty participation in distance education. At Armstrong, there were actually no common factors between the *distance education participators* and *deans* and no common factors between the *distance education participators* and *non-participators* when reviewing the top five highest mean scores for factors motivating faculty participation in distance education. The greatest number of common factors identified in both the Armstrong and GWU studies for motivating faculty participation in distance education were between the *distance education non-participators* and the *deans*. In fact at Armstrong, the *distance education non-participators* and the *deans* shared in common all five of the factors with highest mean scores for motivating faculty participation in distance education.

The data from the two studies did reveal that more common factors existed between all three groups (e.g., the distance education participators, non-participators, and the deans) at Armstrong and GWU when examining the top factors that inhibit faculty participation in distance education.

Tables 8 and 9 provide the means and standard deviations of the top five highest *mean scores* for factors motivating and inhibiting faculty participation in distance education from the GWU institutional study.

Table 8

Top Five Highest Mean Scores for Factors that Have Motivated/Would Motivate Faculty Participation in Distance Education at GWU with Standard Deviations in Parentheses

	Faculty With Experience in Distance Education	Faculty With No Experience in Distance Education	Deans
1.	Ability to reach new audiences that cannot attend classes on campus 4.01 (1.22)	Increase in salary 3.28 (1.18)	Monetary support for participation (e.g., stipend, overload) 4.71 (0.49)
1.	*Opportunity to develop new ideas 3.98 (1.15)	Monetary support for participation (e.g., stipend, overload) 3.72 (1.17)	+Personal motivation to use technology 4.57 (0.54)
1.	+Personal motivation to use technology 3.96 (1.13)	*Opportunity to develop new ideas 3.71 (1.15)	Increase in salary 4.57 (0.79)

1. Intellectual challenge 3.88 (1.18)	Working conditions (e.g., hours, location) 3.66 (1.08)	Credit toward tenure and promotion 4.57 (0.79)
1. Overall job satisfaction 3.71 (1.08)	Intellectual challenge 3.64 (1.15)	Release time 4.43 (0.79)

Note: An asterisk (*) indicates commonality between faculty who have participated in distance education and faculty who have not participated in distance education. A plus (+) indicates commonality between faculty who have participated in distance education and Deans. Shading in the cells indicates common factors between faculty who have not participated in distance education and deans.

Table 9

Top Five Highest Mean Scores for Factors that Would Inhibit Faculty Participation in Distance Education at GWU with Standard Deviations in Parentheses

	Faculty With Experience in Distance Education	Faculty With No Experience in Distance Education	Deans
1.	*+Lack of technical support provided by the institution 3.84 (1.10)	*Concern about faculty workload 4.14 (1.14)	+Lack of technical support provided by the institution 4.57 (0.79)
1.	*Concern about faculty workload 3.75 (1.14)	*Lack of technical support provided by the institution 3.93 (1.02)	Lack of distance-education training by the institution 4.57 (.53)
1.	*+Lack of release time 3.49 (1.24)	* Lack of release time 3.92 (1.07)	Concern about faculty workload 4.43 (0.53)
1.	*Lack of grants for materials/expenses 3.47 (1.16)	*Concern about quality of courses 3.86 (1.09)	Lack of support and encouragement by departmental colleagues 4.29 (1.11)
1.	*Concern about quality of courses 3.41 (1.36)	*Lack of grants for materials/expenses 3.77 (1.03)	+Lack of release time 4.29 (0.48)

Note: An asterisk (*) indicates commonality between faculty who have participated in distance education and faculty who have not participated in distance education. A plus (+) indicates commonality between faculty who have participated in distance education and Deans. Shading in the cells indicates common factors between faculty who have not participated in distance education and deans.

Conclusion

Faculty recruitment and retention is critical to the development, implementation, and long-term sustainability of online and blended programs. Therefore, institutions need to consider how they address motivating and inhibiting factors that influence faculty participation in online and blended education as well as how they design faculty development initiatives to engage and retain faculty. Faculty involvement, including both distance education participators and non-participators, is important in the development of faculty recruitment and retention strategies and in the design of faculty development initiatives.

The data and feedback provided from the faculty at Armstrong revealed differences do exist among distance education participators and non-participators regarding factors that motivate and inhibit faculty participation in distance education. Additionally, the data revealed that deans may have a different perception of what motivates and inhibits faculty participation in distance education. It is important when designing faculty development initiatives and incentive models that all three groups be included (i.e., distance education

participators, non-participators, and deans) since each of these groups brings a unique perspective. The non-inclusion of one of these groups could result the development of a model or initiatives that align with the "perceived needs" of the faculty and not the "actual collective needs" of the faculty.(2)

The results of the Armstrong study indicated that the distance education participators at Armstrong were very intrinsically motivated. This may be partially due to the fact that an incentive model was not developed at the time these faculty members initially got involved in distance education. Therefore, when asked on the survey about the factors that "have motivated" them to participate in distance education, there may have been limited extrinsic options at that time. It is recommended in the future that Armstrong survey the distance education participators about factors that would motivate them to continue participating in distance education.

When the distance education non-participators at Armstrong were asked to select what "would motivate" them to participate in distance education, their primary responses were extrinsic. This may have been influenced by hearing information from colleagues about distance education, such as how much time is needed to develop or teach a course, the type of technology needed to support online engagement, etc. Therefore, extrinsic motivational factors may be more important to non-participators because of the amount of time and support they see as needed (e.g., release time, access to adequate equipment, technical support) to begin working in distance education.

The results of the Armstrong study revealed that over half of the faculty who had participated in distance education had a positive attitude toward online programs. On the contrary, over half of the faculty who had not participated in distance education had a negative attitude toward online programs. This negative attitude toward distance education by non-participators may be linked to perceived inhibiting factors or barriers including concerns about quality (e.g, courses, student,), concerns about time (e.g., workload), and concerns about technology and support (e.g., lack of adequate equipment to support distance education teaching, technical support, etc.), which were identified as the primary inhibiting factors by faculty who had no experience in distance education. The data also revealed that the deans had a more positive attitude toward blended programs than online programs. This data mirrored the faculty data which revealed that both participators and non-participators had a more positive attitude about blended programs than online programs.

While distance education initiatives have become a priority at many higher education institutions, data from the Armstrong study revealed that "institutional pressure/expectation" and "requirement by department" are not motivating factors for those who have not participated in distance education. Of the 29 motivating factors provided in the Armstrong survey, "requirement by department" was listed as 24th and "institutional pressure/expectation" was listed as 27th when looking at the mean scores of the responses by the distance education non-participators. The Armstrong study also revealed that "support and encouragement from the program director/chair" was more motivational for distance education participators and non-participators than "encouragement from the institution's administrators." Therefore, administrators may want to consider ways to engage faculty in distance education on the program level.

Lastly, the Armstrong data revealed that time, quality, technology, and technical support were all related to the top inhibiting factors for faculty participation in distance education identified by the distance education participators, non-participators, and the deans. With increasing time constraints on campuses relating to student advising, teaching, and tenure and promotion, factors related to time are extremely important to faculty and must be addressed by the administration. Moreover, as institutions become increasingly involved in distance education, it is critical that all programs align with the mission and vision of the institution and that academic excellence and rigor remain central to all courses regardless of delivery format. Finally, participation in distance education is dependent upon access to technology and technical support. Therefore, administrators need to ensure that the inhibiting factors across an institution are not greater than the motivating factors. For example, providing faculty with access to new technology (e.g., computer, software, etc.) can increase faculty participation initially in distance education. However, if faculty are not provided with training on how to use the technology or do not have access to technical support when problems occur, then the motivating factors in essence become demotivating and can inhibit faculty from participating actively and successfully in distance education - thus affecting faculty retention.

The Armstrong institutional study provided important data and feedback regarding factors that motivate and inhibit faculty participation in distance education at Armstrong. Additionally, the data and feedback was

utilized to design faculty development initiatives, an online course development process, and an online course review process that were implemented between July 1, 2012 and January 1, 2014. A compendium[3] article entitled "Build It But Will They Teach?: Strategies for Increasing Faculty Participation & Retention in Online & Blended Education" provides an 18-month overview of Armstrong's integration of the 2012 institutional data and feedback in addressing inhibiting factors to faculty participation in distance education and the design and implementation of new faculty development initiatives. As Armstrong continues to expand distance education offerings, the Office of Online & Blended Learning and the Educational Technology Committee continue to engage faculty in discussions and assessments about faculty participation and retention in distance education.

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Footnotes

[1] It should be noted that the follow-up survey for the distance education participators that was used in the GWU study was not included with the Armstrong study due to time constraints.
[2] The deans at Armstrong were provided with (a) aggregated data from the institutional survey, and (b) disaggregated data (i.e., crosstabs) specific to the faculty within their colleges who participated in the institutional survey.
[3] The article "Build It But Will They Teach?: Strategies for Increasing Faculty Participation & Retention in Online & Blended Education" will be published in the Summer 2014 edition of the Online Journal for Distance Learning Administrators.

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