Relating Training to Job Satisfaction: A Survey of Online Faculty Members

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Abstract

The purpose of this study was to determine whether training affected the job satisfaction reported by online faculty members. A convenience sample of 492 Iowa Community College Online Consortium (ICCOC) faculty members were invited to participate in a quantitative survey, and 148 responded. Overall Job Satisfaction was operationalized through the use of the Index of Job Satisfaction (IJS), which was created by Brayfield and Rothe (1951). The study was unable to find a statistically significant relationship for Training either as a dichotomous variable ($p=.463>.05$) or a continuous variable ($p=.330>.05$) and Overall Job Satisfaction, controlling for age and gender.

Introduction

Students increasingly choose online education because of its accessibility and flexibility (Horvath & Mills, 2011). As web-enhanced teaching continues to expand (Moloney et al., 2010) and as student demand for online courses increases, the resulting demand for qualified faculty to teach distance education courses also has grown as well. The need for trained faculty in the online environment is noted in literature (Haber & Mills, 2008; Orr, Williams & Pennington, 2009; Pagliari, Batts & McFadden, 2009). Colleges and universities must respond to student demands by offering quality online courses using best practices and qualified faculty (Baghdadi, 2011).

Faculty members who desire to teach a quality online course need training in both technology and instructional methods, such as course design (Hoyle, 2010), implementation, and delivery (Dempsey, Fisher, Wright, & Anderton, 2008) because many of these skills are applied uniquely in the online learning environment. Another important ingredient of online course quality is faculty satisfaction (Bollinger & Wasilik, 2009) which is one of the five pillars of quality for online courses indicated by the Sloan Consortium (2002). Outside of educational research, training opportunities have been found to be positively related to employee satisfaction (Irving & Montes, 2009).

In 1999, the Iowa Community College Online Consortium (ICCOC), a group of seven community colleges located in Iowa, began offering online courses. When the ICCOC started, there were 11 faculty members serving 273 students. During the 2011-2012 academic year, the ICCOC employed approximately 497 faculty members who served over 30,000 students. Historically, the ICCOC has addressed online faculty training in a variety of ways including face-to-face, conferences, and workshops. Although the ICCOC offers various types of training, this study focused exclusively on the formal training modules offered to ICCOC faculty through the Pearson eTeaching Institute©.
Importance

As online education continues to grow in the United States (Allen & Seaman, 2011; Moloney et al., 2010), enrollments have grown at the Iowa Community College Online Consortium (ICCOC). Although member colleges have formed a consortium to jointly offer online courses, there is no standard policy regarding faculty training and each college makes its own decisions regarding the method and amount of required training. Thus, each college has different training requirements for faculty regarding the completion of online course modules, which may affect job satisfaction, faculty retention, and, ultimately, student achievement.

The problem studied was that the ICCOC did not know whether the online course modules result in increased job satisfaction for online faculty members (G. Bartelson, personal communication, March 12, 2013). As discovered in a review of the literature, age and gender have been regularly confirmed as being related to job satisfaction and were included as part of the research analysis. A review of the literature has found training to be linked to employee job satisfaction in other arenas but not yet for online faculty. The results of this study may direct practitioner efforts to increase job satisfaction for online faculty and may guide decision makers in future training-policy decisions.

Research Questions

The purpose of the proposed study was explored through the following research questions:

Q1. What relationship, if any, exists between training, defined as yes/no completion of any Pearson eTeaching Institute© training modules, and job satisfaction reported among faculty members who teach online for the ICCOC, controlling for age and gender?

Q2. What relationship, if any, exists between the number of Pearson eTeaching Institute© training modules completed and job satisfaction reported among faculty members who teach online for the ICCOC, controlling for age and gender?

Literature Review

To inform this study, a brief literature review on prior research relating to training and job satisfaction in higher education, specifically the online teaching environment is included. The literature review begins with expected growth of online student enrollments. As some faculty resist distance education, a review of the literature highlights the need for institutional support, and specifically training, for faculty who teach online. A close look at factors that influence the job satisfaction of faculty members, specifically training, is investigated. A review of the literature concludes by reviewing what is known about training and job satisfaction.

Anywhere, Anytime Learning

Online education has been summarized as anywhere, anytime learning (Rotella, 2010). The combination of education and the Internet has expanded learning opportunities for students via distance education (Allen & Seaman, 2011). The online classroom has proven to be a popular educational choice for students, in part because this method of education offers convenience and access (Foster, 2010).

Online courses are growing at a more rapid pace than traditional methods of higher education. According to Allen and Seaman (2011), online enrollments grew 10% from 2010 to 2011. Figure 1 shows the growth in the number of online students from 2002 to 2010.

The growth of student enrollments has led to an increase in the number of faculty members who teach online. A review of the literature noted faculty members are the key to both the successful implementation and outcomes of distance education (Jackowski & Akroyd, 2010), and faculty members have also been found to be crucial for the success of the institution (Batts, Pagliari, Mallett, & McFadden, 2010). Faculty members, who perform such a critical role for the institution, require faculty development to design, develop, and teach online courses (Gautreau, 2011). For colleges and universities to sustain such
growth in student enrollment, it is necessary to employ a pool of competent faculty who can engage effectively in the online learning process.

Figure 1. The Increasing Number of Students Taking Online Courses (Allen and Seaman, 2011)

When considering faculty resistance to online teaching, a review of the literature found that the time to create (Kerr, 2010) and time to learn the technology (Tabata & Johnsrud, 2008; Shea, 2007) are barriers to faculty adoption of online teaching. Faculty are also concerned about inadequate institutional support and training to teach online (Haber & Mills, 2008; Shea, 2007). Faculty will resist teaching online if they lack the appropriate training (Crawford-Ferre & Wiest, 2012), and training has been shown to increase the confidence faculty have with the use of technology (Jackowski & Akroyd, 2010). Although a number of issues may prevent faculty from beginning to teach online, many of these obstacles can be removed when proper training is provided. Barriers to teaching online can be overcome through institutional support and training workshops (Tabata & Johnsrud, 2008).

Magnussen (2008) noted that faculty should be enthusiastic, interested, and skilled to develop excellent online courses. Other researchers noted that online teachers may often feel unprepared for the challenges of teaching online, and also feel they lack the tools or pedagogical skills necessary to be effective (Lackey, 2011; Major, 2010). Faculty members who teach online require formal training in hardware, software, and distance course design (Jackowski & Akroyd, 2010). Terantino and Agbehonou (2012) noted an important component in online education is a well-trained and well-supported online faculty. Schifter (2000) noted the best way to prepare faculty to be more comfortable with technology is by providing opportunities to learn.

Training has been defined as the process people follow to acquire capabilities to perform jobs (Mathis & Jackson, 2008). Training is used widely by organizations so employees will become more competent and effective in their jobs (Dooley et al., 2007; Picchio & van Ours, 2012). In spite of this particular finding, a study of professional development for online teachers, conducted by Rice and Dawley (2009) found 62% of teachers had no training in how to teach online before they taught online, few had formal academic training in the online teaching, and most faculty members learned on the job.

Job Satisfaction

Hagedorn (2000) concluded “[A]lthough no appropriate metric capable of precisely categorizing or gauging levels of job satisfaction exists, any worker can attest that its presence can be felt and its consequences observed” (p. 9). A broad definition of satisfaction has been defined as the fulfillment of needs and wants (Knoop, 1994). For the purposes of this study, which will evaluate overall job satisfaction at work, the definition of job satisfaction as a positive emotional state resulting from evaluating one’s job experiences, will be used (Mathis & Jackson, 2008).

Compared with other professional fields, higher education garners an overall high level of faculty satisfaction (Gappa, Austin, & Trice, 2007; Lin, Pearce & Wang, 2009). In one study, nearly three in four faculty members (74.8%) reported high overall job satisfaction (Hurtado & DeAngelo, 2009). The National Study of Postsecondary Faculty (NSOPF) (2004) shows a high degree of overall job satisfaction for faculty (87.5%), regardless of appointment, career stage, institution, gender, or ethnic background (Gappa, Austin, & Trice, 2007). Although university administration cannot control personal intrinsic factors that may lead to job satisfaction, they can focus on the facets of a position that can be influenced, such as training and development (Stewart, Goodson, & Mertschin, 2010).
The specific demographic factor of gender (Bolin, 2007; Johnson, 2010; Sabharwal & Corley, 2009; Spivey, Chrisholm-Burns, Murphy, Rice, & Morelli, 2009; Zhang, Verstegen, & Kim, 2008), has been shown to influence job satisfaction. For example, Sabharwal and Corley (2009), in a study of sciences and social sciences, found that, with few exceptions, male faculty members generally have higher levels of job satisfaction than female faculty members in all disciplines studied. Age was repeatedly confirmed as being related to job satisfaction (Bolin, 2007; Lin et al., 2009; Zhang et al., 2008). The referenced studies show not all faculty groups experience job satisfaction similarly.

The effects of high faculty job satisfaction are felt in different ways in an academic institution. Faculty members with high levels of job satisfaction have been shown to influence student achievement (Willis & Varner, 2010). Additionally, job satisfaction levels affect the quality of faculty work, which may ultimately affect student persistence and retention (McLawhon & Cutright, 2011). Knowles (1970) noted that the teacher is the most important variable in the classroom for student achievement. Similarly, Chen (2011) noted that university faculty members’ satisfaction with their current work environment can promote improved teaching quality. Faculty involvement in the online class has been demonstrated to affect a student’s ability to complete an online course (McClure, 2007), and desirable student behavior is closely linked to the motivation levels of the teacher (Kocabas, 2009).

Online faculty satisfaction has been defined by the American Distance Education Consortium (ADEC) as the perception that teaching online is effective and professionally beneficial (para. 10). For the purpose of this paper, online faculty job satisfaction is defined as faculty members feeling positive and confident about how they teach in the online environment.

Tallent-Runnels et al. (2006) found that faculty satisfaction with teaching online was the primary determining factor for faculty who desired to teach online. Researchers also have found a positive relationship between satisfaction and perceived quality of online courses (Rodriguez, Oom, & Montanez, 2008). Some faculty reported a lack of technical expertise and support (Haber & Mills, 2008) could lower job satisfaction. Faculty satisfaction in the online context must be continuously assessed to assure quality educational experiences for faculty and students (Bozeman & Gaughan, 2011).

Summary

The melding of the Internet and education has created a new kind of knowledge worker, the online faculty member. Some faculty members have resisted online teaching, citing inhibitors such as lack of time, lack of skills, and lack of training (Kerr, 2010; Haber & Mills, 2008; Shea, 2007; Tabata & Johnsrud, 2008). The online format requires a unique set of work-related skills for quality faculty members. A review of the literature identified training as a way for faculty members to acquire the skills needed to offer a quality online course (Terantino & Agbehonou, 2012). Lack of adequate training for faculty is considered one of the greatest barriers to teachers becoming involved in distance education practices (Schneckenberg, 2010).

Job satisfaction is important to employees across continents and industries (Ayres & Malouff, 2007; Karim, Huda, & Khan, 2012; Noor & Dola, 2012). The link between online faculty job satisfaction and student achievement indicate faculty members have an important role in any classroom, and creating opportunities for faculty to be satisfied in their work is a worthwhile task for leaders of higher education (Marston & Brunetti, 2009).

Research Method and Design

Research Question 1 examined a dichotomous variable, training, as a predictor variable while controlling the variables of age and gender as predictors of satisfaction. Triola (2010) noted the use of regression allows for the variables of age and gender to be controlled through this analysis. The ICCOC offers six unique training modules to faculty who teach online, and it is the number of completed modules that was the emphasis of Research Question 2. The second research question examined training as a continuous variable while controlling for age and gender as predictors of satisfaction.

The most appropriate methodological approach for
this research study was a quantitative method and correlational study design that used regression analysis for both research questions. As the goal of this study was to examine the relationship between the variables of training and job satisfaction, quantitative analysis is a better fit than other research alternatives. A strength of quantitative analysis is the ability to measure attitudes (Vogt, 2007) such as job satisfaction. Survey methodology was used for this study and this approach is widely-used to gather objective data about the participants such as their age and gender. Surveys are also useful to find out respondents’ attitudes, values, and beliefs (Vogt, 2007). The use of survey methodology was appropriate for this study because the variable of job satisfaction is attitudinal in nature and can be easily ascertained through a self-reported survey. One advantage of survey use in this study was the ability to quickly and easily appraise the attitudes of a large number of participants who are widely dispersed (Vogt, 2007). The survey method was chosen due to the geographic dispersion of the ICCOC faculty who are located across Iowa and nationally as well. Survey research also is accurate, efficient, inexpensive, and easy to construct (Fowler, 2009). The use of regression analysis allowed for examining the relationship between training and job satisfaction while controlling for the variables of age and gender (Vogt, 2005), which were identified as important covariates in a review of the literature.

**Instrument**

This study utilized the Index of Job Satisfaction (IJS) created by Brayfield and Rothe (1951) to operationalize the variable of overall job satisfaction. The 18-item instrument was constructed to yield an overall job satisfaction score rather than satisfaction with specific aspects of the job. The score for each item has a range of 1 (strongly agree) to 5 (strongly disagree) with total instrument scores ranging from 18 to 90 with the undecided or neutral point at 54.

To operationalize the variable of training, the survey contained two questions that related to training. The first question asked a faculty member to indicate whether he or she had taken a training module (yes/no) offered by the Pearson eTraining Institute. This item was used in the data analysis process to determine whether there was a relationship between training and job satisfaction for survey participants. The second question asked each faculty member to indicate the number of Pearson eTraining Institute® training modules he or she had completed. As guided by the literature review, the survey collected the additional demographic data of age and gender as well.

**Population**

This research study was conducted with Iowa Community College Online Consortium (ICCOC) faculty members. A blind copy email was sent to each faculty member who taught online during the 2011-2012 academic year. The email introduced the proposed study and included a link to the online survey. Permission was sought and granted by the director of the ICCOC prior to data collection. The director also provided an email list of 497 faculty members who taught for the ICCOC during the 2011-2012 academic year and were recruited via blind copy email, 5 email addresses were undeliverable. The study population included members of both genders and various age groups, and included a mix of full-time and adjunct instructors, with varying levels of teaching experience and educational attainment. Faculty members were invited, after informed consent, to participate voluntarily in the survey, which formed a convenience sample. Because a previous study by Gullickson (2011), on this population, had produced a response rate of 54%, no incentives were provided which ensured anonymity of the respondents. Over a period of three weeks, three email invitations were sent to faculty members requesting study participation.

**Results**

A list of 492 ICCOC faculty members were solicited for participation, and 148 participants completed the survey, resulting in a final response rate of 30.1%. Initially, descriptive statistics were computed for all study variables. Respondents varied by age group, gender, and module completion as shown in Table 1. Generally, survey participants were predominately female and did not complete a single training module.
Table 1  
Faculty Demographic Information 

<table>
<thead>
<tr>
<th>Measure</th>
<th>Number (N)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>33.8%</td>
</tr>
<tr>
<td>Female</td>
<td>98</td>
<td>62.8%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 30</td>
<td>4</td>
<td>2.0%</td>
</tr>
<tr>
<td>31-39</td>
<td>25</td>
<td>16.9%</td>
</tr>
<tr>
<td>40-49</td>
<td>35</td>
<td>23.6%</td>
</tr>
<tr>
<td>50-59</td>
<td>39</td>
<td>26.4%</td>
</tr>
<tr>
<td>&gt; 60</td>
<td>45</td>
<td>31.1%</td>
</tr>
<tr>
<td>Module Completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed no</td>
<td>93</td>
<td>62.8%</td>
</tr>
<tr>
<td>modules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed 1 or</td>
<td>55</td>
<td>37.2%</td>
</tr>
<tr>
<td>more modules</td>
<td></td>
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</tbody>
</table>

The descriptive statistics for the Overall Job Satisfaction reported by this sample are as follows, and are also summarized in Table 2. The Instrument ranged from a score of 18 (low overall job satisfaction) to 90 (high overall job satisfaction). Participants reported a low score of 33, and a high score of 86, so the scores are skewed to the right. The Mean and Median were 69.88 and 71.00 respectively. The standard deviation for this sample was 9.16.

The results of Research Question 1 are presented in Table 3. The relationship of particular interest in Research Question 1 is the study of the relationship between the variables of Yes/No Training and Overall Job Satisfaction. The level of significance that was used for this study was set at an alpha level of .05 (α = .05) and the p value for the variable of Training was .463 > .05. Based on the p value, there is no evidence to support a relationship between training as a Yes/No variable and Overall Job Satisfaction, while controlling for age and gender. The R² for the variables of Yes/No training, gender and age for Research Question 1 was .048, meaning the three variables of increased training, age, and gender, combined explain 4.8% of the variance in job satisfaction. The effect of the presence of Training alone on Overall Job Satisfaction was .8% (R² = .008), which explains .8% of the variance in Overall Job Satisfaction.

Table 2  
Descriptive Statistics for Overall Job Satisfaction 

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Mean</td>
<td>69.88</td>
</tr>
<tr>
<td>Median</td>
<td>71.00</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>9.16</td>
</tr>
<tr>
<td>Population Range</td>
<td>53.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>33.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>86.00</td>
</tr>
<tr>
<td>Instrument Range</td>
<td>18-90</td>
</tr>
</tbody>
</table>

Table 3  
Predictions of Overall Job Satisfaction by Yes/No Training 

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>63.544</td>
<td>4.939</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>.932</td>
<td>1.583</td>
<td>-.048</td>
<td>.557</td>
</tr>
<tr>
<td>Yes/No Training</td>
<td>1.147</td>
<td>1.558</td>
<td>-.061</td>
<td>.463</td>
</tr>
<tr>
<td>Age</td>
<td>1.522</td>
<td>.664</td>
<td>.190</td>
<td>.023</td>
</tr>
</tbody>
</table>

Note. n=148. R² = .048 (Adjusted R² = .028)

The results of Research Question 2 are presented in Table 4. Of particular interest in this study is whether there was a relationship between Increased Training and Overall Job Satisfaction. The level of significance that was used for this study was set at an alpha level of
.05 (α = .05) and the p value for this variable was .330 > .05. Based on the p value, there is no evidence to support a relationship between Increased Training as a continuous variable and Overall Job Satisfaction, controlling for age and gender. The R² for this Research Question 2 was .050, meaning the three variables of increased training, age, and gender, combined explain 5.0% of the variance in job satisfaction. The amount of increased training explains 1.3% (R² = .013) of the variance in Overall Job Satisfaction.

Table 4
Predictions of Overall Job Satisfaction by Increased Training

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>63.675</td>
<td>2.514</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.968</td>
<td>1.581</td>
<td>-.050</td>
<td>.542</td>
</tr>
<tr>
<td>Increased Training</td>
<td>.760</td>
<td>.778</td>
<td>.081</td>
<td>.330</td>
</tr>
<tr>
<td>Age</td>
<td>1.477</td>
<td>.667</td>
<td>.185</td>
<td>.028</td>
</tr>
</tbody>
</table>

Note. n=148. R² = .050 (Adjusted R² = .031)

Both research questions controlled for the effect of gender and age when analyzing the relationship of Training and Overall Job Satisfaction. The p values for Gender for Research Question 1 (.557 > .05) and Research Question 2 (.542 > .05) do not provide enough evidence to support a relationship between Gender and Overall Job Satisfaction. The p value for Age in Research Question 1 (.023 < .05) and Research Question 2 (.028 < .05) both provide evidence of a relationship between Age and Overall Job Satisfaction.

Limitations and Implications

A review of the literature predicted there would be high Overall Job Satisfaction levels reported by faculty members (Gappa, Austin, & Trice, 2007; Lin, Pearce & Wang, 2009). The ICCOC faculty members in this study had a mean Overall Job Satisfaction score of 69.88 on a possible range of 18-90 where neutral was 54.

This study did not include the other training options available to ICCOC faculty members, such as face-to-face training sessions, conferences, and workshops. The purpose of this research study was simply to evaluate the effect of one training program option, whether the completion of a single Pearson® online training module affected Overall Job Satisfaction reported. This study determined the online training modules do not independently contribute significantly to Overall Job Satisfaction of ICCOC faculty members.

The results of this study are inconclusive in determining whether training in general increases job satisfaction for online faculty members who teach for the ICCOC because other forms of training offered by the ICCOC were not measured as part of this study. This study also was unable to support an exploratory study concluding that online instructors should be provided with training that is delivered online (Kanuka, Jugdev, Heller, & West, 2008).

It is recommended that policymakers and educators in ICCOC continue to explore the reasons and rationale for continuing to include the Pearson eTeaching Institute© as part of the current Pearson Learning Studio© contract. Another recommendation is to include an overall review of the training goals, the desired outcomes, and the costs of training opportunities. Because each individual college does not require online course module completion, if applicable, decision makers also should continue to monitor reasons for requiring training module completion. The results of this study show that faculty job satisfaction increases with age, but there are not statistically significant differences according to gender.

This study did provide a benchmark of job satisfaction levels for ICCOC faculty, and the faculty members who teach for the ICCOC report relatively high job satisfaction scores. This finding informs ICCOC administrators and distance-education leaders at ICCOC member institutions. It also supports previous research stating faculty members experience relatively high job satisfaction levels (Gappa, Austin, & Trice, 2007; Hurtado & DeAngelo, 2009; Lin, Pearce & Wang, 2009; Pearson & Seiler, 1983).

Recommendations beyond the ICCOC are difficult to make given the study methodology and inherent
limitations. Although the faculty members of the ICCOC have a high overall job satisfaction similar to what a review of the literature found about faculty of higher education. It is interesting that online course module completion did not increase ICCOC faculty satisfaction, due perhaps to other various training options available. A final recommendation is that these findings may inform recruitment and hiring decisions of online faculty.

References
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Lackey, K. (2011). Faculty development: An analysis of current and effective training strategies for preparing faculty to teach online. Online Journal of Distance Learning Administration, 14(5).


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