Retaining K-12 Online Teachers: A Predictive Model for K-12 Online Teacher Turnover

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The purpose of this study was to measure and explore factors influencing K-12 online teachers’ turnover intentions, with job satisfaction and organizational commitment serving as moderating variables. Using Fishbein and Ajzen’s Theory of Reasoned Action and Planned Behavior (1975), this study was conducted in public, private, charter, for-profit, and not-for-profit K-12 online schools in a single Southeastern state. Using a quantitative survey design, the study included responses from 108 participants. The results revealed that K-12 online teachers intend to remain teaching in the online setting in the immediate, intermediate, and long-term future. A logistic regression model indicated schedule flexibility, mentoring, number of students, number of years teaching experience, and affective commitment are predictors of online teacher’s likelihood of turnover. These results inform K-12 online school leaders who seek to retain new hires of statistically significant variables that influence online teacher retention.

Keywords: K-12 online schools, virtual schools, teacher turnover, teacher retention, teacher mentors, teacher onboarding, online teachers, K-12 online teachers
Employee turnover is a concern for all organizations, but one that historically plagues the field of education, with roughly 40% of all new teachers leaving the classroom within the first five years of employment (AEE, 2014; Darling-Hammond, 2001; Dawson, 2001; Ewing & Manuel, 2005; Ingersoll 2002; Ingersoll, Merrill, & Stuckey, 2014). Teacher turnover is significantly higher compared to the national turnover trend, which is approximately 17.9% across all industries (Boushey & Glynn, 2012). Losing employees and training their replacements impedes not only productivity, but also places a financial strain on the organization (Kazemi, Shapiro, & Kavner, 2015). High employee turnover is detrimental to both the organization and its employees with “costs relating to recruitment and selection, personnel process and induction, training of new personnel and above all, loss of knowledge gained by the employee while on the job” (Chovwen, Balogun, & Olowokere, 2014, p. 114). Productivity is impacted by the time and resources, roughly 20% of the exiting employee’s salary, it takes to recruit, train, and acclimate new hires to the work setting (Boushey & Glynn, 2012; Kazemi, et al., 2015). Meanwhile, the remaining employees struggle to provide quality services when novice, untrained employees take the place of the departing employee, who took with them all the critical knowledge they acquired over time (Harris, Kacmar, & Witt, 2005; Kazemi, et al., 2015). In addition to increasing the workload of remaining employees, turnover rates may also lower employee morale, and discourage potential applicants from applying for open positions in a seemingly unstable or undesirable organization (Byrd, Cochran, Silverman, & Blount, 2000; Kazemi, et al., 2015). Aside from tangible, monetary costs, analysts believe that the price tag is even higher for the students, as the loss in teacher quality is also a loss in student achievement, particularly in high-poverty and high-minority schools that are in desperate need of high-quality teachers, yet are almost twice as likely as other students to have novice teachers that will abandon education within a matter of years (Alliance for Excellent Education, 2005).

The quality of any organization largely depends on the presence of committed and satisfied employees (Chovwen, et al., 2014). To prevent K-12 teacher turnover, schools have employed various teacher induction practices including internships, reduced teaching loads, time for observation and reflective practice, and mentorship. According to Howe (2006), the most effective induction programs incorporate a combination of expert mentors and intensive in-service training; however, the data supporting this
Predicting Turnover

claim is limited to teachers entering the brick-and-mortar setting. Over the past two decades, school districts’ and students’ move to online platforms for teaching and learning has increased. In addition, various modes of online education have emerged to support them, including state, local, private, and nonprofit agencies. With continued student enrollment in online schools and online courses, particularly in the Southeast (Gemin, Pape, Vashaw, & Watson, 2015), there is also an increasing demand to hire and retain qualified online teachers to meet the growing needs of digital learners.

Given the deleterious effects of turnover on productivity, teacher morale, human capital, and financial resources, school leaders need mechanisms to predict and potentially minimize teacher turnover (Kazemi, et al., 2015). By identifying critical factors that encourage online teacher retention, online school leaders can combat attrition from the onset through altered practices, such as creating targeted interview questions or redesigning the onboarding infrastructure for new hires in an effort to maximize schools’ return on investment. The purpose of this study was to create a predictive model that estimates the likelihood of teachers remaining in the online environment in the immediate, intermediate, and long-term future.

REVIEW OF LITERATURE

The current study is part of a larger study (Larkin, 2015; Larkin, Brantley-Dias, & Lokey-Vega, 2016) which was framed by a combination of the theories informing job satisfaction, organizational commitment, and turnover intention. Each theory is steeped in research throughout the twentieth century, providing seminal works through which we built the theoretical foundation for this research study. The theories of job satisfaction, organizational commitment, and turnover intention have been paired together in research from various academic and professional fields, revealing insights into K-12 online teachers’ satisfaction and commitment to the profession. For the purposes of this manuscript, the researchers focused on the turnover intentions of K-12 online teachers and how their job satisfaction, organizational commitment, and personal demographics served as moderating variables to predict the likelihood of teachers remaining in the online environment throughout career stages. Bester (2012) noted that turnover intention is seldom precisely defined in research, which he attributed to the assumption that people perceive the term to be self-explanatory. Intention to remain is defined as employees’ intent to continue in the present employment relationship with their current employer on a long-term basis. Lacity, Lyer, and Ru-
dramuniyaiah (2008) defined turnover intention as “the extent to which an employee plans to leave the organization” (p. 228), while other researchers described it as the conscious and deliberate willfulness to leave an organization (Mobley, Horner, & Hollingsworth, 1978; Mobley, 1982; Tett & Meyer, 1993). Vandenberg and Nelson (1999) expressed employees’ intention to quit as an individual’s estimated probability that they are permanently leaving their organization at some point in the near future. Intention to remain often mirrors an individual’s level of satisfaction and commitment to his organization and their willingness to remain employed (Hewitt Associates, 2004).

**Turnover as a Predictive Model**

Fishbein and Ajzen’s (1975) theory of Reasoned Action and Planned Behavior holds that the prediction of a planned behavior tends to be negotiated by the intention to perform that behavior. According to Fishbein and Ajzen (1975), “the best single predictor of an individual’s behavior will be a measure of the intention to perform that behavior” (p. 369). Fishbein and Ajzen’s concept of “behavior intention” assumes that individuals make decisions, such as to remain at their jobs, in a rational way by “systematically employing accessible information on the costs and benefits of the behavior and the control they have, or believe they have, over carrying it out” (Chacon, Vecina, & Davila, 2007, p. 628). Thus based on Fishbein and Ajzen’s framework (1975), turnover intention can be described as an individual’s behavioral intention.

Turnover intention is a construct of the behavioral, psychological, and organizational sciences, and is considered to be a strong indicator of actual turnover, for which job satisfaction and organizational commitment are considered the antecedents (Bluedorn, 1982; Chacon, Vecina, & Davila, 2007; Lee & Mowday, 1987; Perrachione, Petersen, & Rosser, 2008; Sirin & Sirin, 2013). A fundamental principle of traditional turnover thinking is that decisions to withdraw from the organization best foretell future withdrawal (Finster, 2013; Mobley, Griffeth, Hand, & Meglino, 1979; Price & Mueller, 1986). Houkes, Janssen, de Jonge, and Bakker (2003) postulated that the relationship between the independent variables, satisfaction and commitment, and the dependent variable, turnover intention, are predictive in nature. Hafidhllaoui and Chhinzer (2014) explained that conceptually, behavioral intentions are effective predictors of behavior and therefore turnover intentions serve as a proxy to actual turnover.
Models of turnover intentions, or intentions to remain at or leave an organization, have been linked to employees’ satisfaction and the strength of their relationship with their organization (Mobley, 1982). Houkes et al. (2003) posited, when employees consider their career opportunities within the organization as limited or absent (unmet career expectations), a withdrawal reaction may be evoked in order to cope with the frustrations. For the individual employee, turnover to an alternative job with better career opportunities may thus be an attractive solution. (p. 429)

Farrell and Rusbolt (1992) further supported the predictive nature of turnover intention, stating that quitting is a cognitive behavior that occurs before leaving, when employees think about quitting and develop intentions to look for a new job.

**Job Satisfaction and Turnover Intentions**

Employees who are satisfied with their jobs are less likely to consider leaving their jobs. Adeyemo and Afolabi (2007) found a negative correlation between job satisfaction and withdrawal cognition, or intention to quit. In their 2014 study, Chovwen et al. reported job satisfaction to have a significant predictive effect on turnover intention. Individuals who reported higher levels of job stress or who had a history of “job hopping” reported higher levels of turnover intentions. Conversely, the higher the employee’s level of satisfaction and sense of equity within the organization, the lower were their turnover intentions. Work conditions that provide support, resources, opportunities to learn and grow, and encourage autonomy are associated with job satisfaction, leading to low turnover intentions (Laschinger, 2012).

Various theorists and studies suggest that the relationship between job satisfaction and turnover is mediated by the extent to which there is a match between the employee’s expectations of the job and the actual experience on the job (Locke, 1975; Porter & Steers, 1973; Ryan, Healy, & Sullivan, 2012; Vroom, 1964). Job-related stress that leads to burnout, such as unmanageable workloads, a weak sense of community, perceived lack of equity or fairness, lack of support and resources, and emotional exhaustion are all attributed to decreased job satisfaction and increased turnover intentions (Laschinger, 2012). It is the dissatisfaction with one’s job that leads to the search for an alternative job, and that search will increase the likelihood of alternative employment being found (March & Simon, 1958).
In a study of 201 public elementary school teachers conducted by Perrachione, Petersen, and Rosser (2008), evidence suggested there is a relationship between job satisfaction and intent to remain in teaching. Those teachers who stated their intent to remain teaching due to their high level of job satisfaction were influenced both by intrinsic (e.g., teaching efficacy, working with students, contributing to society) and extrinsic variables (e.g., salary, vacation or time off, retirement benefits). Perrachione et al.’s (2008) findings also reveal that those teachers who did not intend to remain teaching were motivated to leave by solely extrinsic variables (e.g., workload, low salary, unfair policies). These findings supported Herzberg’s (1966) Two Factor Theory in that the intrinsic factors or motivators of an individual’s job produce job satisfaction, and subsequently their intent to remain, but that extrinsic factors or hygienes led to job dissatisfaction and higher turnover intentions.

Organizational Commitment and Turnover Intentions

Individuals who are highly committed to their organizations are less likely to think about leaving. The most popular and widely used commitment construct, which the researchers applied to this study, was put forward by Meyer and Allen (1991, 1997) and proposes three components: affective, normative, and continuance commitment. Affective commitment expresses the emotional attachment of the employees to their organization, their desire to see the organization succeed in its goals, and internalization of the organization’s norms and values as their own (Nagar, 2012). Normative commitment, by contrast, does not correspond to any individually felt attachment to the organization, but rather reflects their moral or ethical obligation towards the organization due to the time and resources the organization has invested in them, and the benefits the individual receives from continued employment (Meyer & Allen, 1991; Nagar, 2012; Wiener, 1982). Continuance commitment refers to the individual’s perceived need to continue with the organization because, when weighing the pros and cons, leaving the organization would be costly. Those employees with continuance commitment may find it difficult to leave their organization due to a lack of appealing employment opportunities, and remain with their organization because they feel they must stay (Meyer, Allen, & Smith, 1993).

Of the three types of organizational commitment, affective commitment is most positively correlated with employee’s intent to remain. Meyer and Allen (1997) promoted the importance of affective commitment by explain-
ing that employees with strong affective commitment would be motivated to higher levels of performance and were likely to make more meaningful contributions than employees who expressed continuance or normative commitment. Cohen (1996) discovered that affective commitment was more highly correlated with job performance and employee retention than the other forms of commitment. Cohen revealed that employees, nurses in this case, who remained with the organization because they wanted to (affective) were also more likely to exhibit higher levels of commitment to their work, their job, and their career.

Irving, Coleman, and Cooper (1997) investigated the relationship between affective, continuance, and normative commitment and the outcome measures of job satisfaction and turnover intentions. Results revealed that job satisfaction was positively correlated to both affective and normative commitment, though negatively related to continuance commitment; these findings were congruent with the influential works of Meyer, Allen, and Smith (1993) and Meyer and Allen (1991, 1997). In other words, those employees who remained with their organization because they had to, due to financial constraints or a lack of professional alternatives, were less satisfied with their jobs. All three types of organizational commitment were negatively related to turnover intentions, with affective commitment showing the strongest negative correlation, meaning that as affective commitment increases, the employee’s intention to leave the organization decreases (Irving et al., 1997; Meyer et al., 1993).

Similar to job satisfaction, there is evidence that unmet expectations can undermine organizational commitment. Porter and Steers (1973) referred to this concept as the expectations gap, where there is a “discrepancy between what a person encounters on the job in the way of positive and negative experiences and what he or she expected to encounter is likely to be linked to employers’ retention patterns” (Sturges & Guest, 2001, p. 449). If the employee’s expectations about work do not accord with reality, their psychological contract with their employer may be broken, and thereby their commitment to the organization undermined (Sturges & Guest, 2001).

Teacher retention in brick-and-mortar schools has been well researched since the 1980s and heavily investigated later in the 1990s. Teacher attrition was found to be higher than comparable female-dominated fields and conforms to a U-shaped curve, meaning teachers tend to leave the profession either early in their careers, or opt for an early retirement rather than enduring a full career of teaching (Borman & Dowling, 2008). Teacher attrition is highest in high-poverty schools with large proportions of racial and ethnic minorities. These trends show relationships to high pension-to-salary ratios,
lack of teacher induction, lack of resources and lack of autonomy (Borman & Dowling, 2008; Grissmer & Kirby, 1997). Whether the same conclusions can be drawn in the K-12 online schooling context is unknown, as research in this area has only begun. The combined review of literature and the theoretical framework informed the development of the following guiding questions used in this investigation:

1. What are the turnover intentions of K-12 online teachers?
2. What moderating variables influence K-12 online teacher retention?
3. What hiring and on-boarding practices can K-12 online leaders employ to improve teacher retention?

METHODS

This article draws on data from a larger mixed methods study (Larkin, 2015; Larkin et al., 2016) concerning K-12 online teacher job satisfaction, organizational commitment, and turnover intentions. In the larger study, we used a sequential explanatory design (Creswell, 2009) in two consecutive phases (Johnson, Onwuegbuzie & Turner, 2007): collecting and analyzing quantitative data generated from a survey followed by qualitative data produced from focus group interviews. For the purposes of this manuscript, only quantitative data will be presented. As an extension to the larger study, we applied a logistic regression model to analyze the moderating variables that influence or predict the turnover of K-12 online teachers.

Participant Selection

For the quantitative phase of the study, we used nonprobability sampling to recruit participants from 11 K-12 online schools in a single southeastern state of the United States, of which six schools agreed to participate. Online school administrators were solicited by email asking them to invite their full-time and part-time online teaching faculty to participate in the study by forwarding their teachers an email containing a survey URL. All participants were provided with a URL linked copy of the Informed Consent and were required to electronically consent to participate prior to proceeding with the survey.

Of the participants, 89.5% ranged from 25-54 years of age, and 81.9% reported having a Master’s degree or higher. Teaching experience was re-
reported in years according to type: face-to-face (M=11.27), blended or hybrid (M=.62), and fully online (M=3.08). More than 66% of the participants reported working at a state-affiliated online school (public, charter, district or state-level). When asked to indicate all of the grade level students they were currently teaching, survey participants predominately reported teaching high school students, with the frequency descending steadily from high school (n=308), to middle school (n=45), to elementary school (n=13). The overwhelming majority of online courses taught by the teachers were the four core academic subject areas: history/social studies (22%), language arts (20%), math (26%), and science (25%). Other academic areas, such as foreign language, physical education, or elective courses, represented roughly 2-9% all other courses taught by K-12 online teacher participants.

Data Collection and Analysis

The data collection employed the first author’s researcher-constructed instrument called Job Satisfaction and Commitment of Online Teachers (JSCOT) (Larkin, 2015; Larkin et al., 2016). It consisted of three parts. Part one contained 21 demographic questions and 30 items (28 closed-response and 2 open-response) to measure job satisfaction. Part two embedded the unmodified 18-item Organizational Commitment Questionnaire (OCQ) (Meyer & Allen, 1991; 1997). Part three included five items designed to predict turnover intention. Most research studies measure turnover intention by including one to five items at the end of an instrument (Chacon, Veciana, & Davila, 2007; Irving et al., 1997, Michaels & Spector, 1982; Price & Mueller, 1986). Many researchers (Houkes, et al., 2003; Ryan, Healy, & Sullivan, 2012) assess turnover with a dichotomous scale, as was applied in this research study. For each intention item, participants must choose Yes (1) or No (0) to indicate the agreement with questions regarding their immediate and long-term turnover intentions. The instrument can be viewed in Appendix A.

The turnover intention construct is generally applied as a dependent variable in an investigation of other constructs (independent variables) in an effort to predict the independent variable’s influence on an employee’s intent to remain or leave their organization. The measured degrees of K-12 online teachers’ job satisfaction and organizational commitment, as well as demographic data, serve as the independent variables mediating the dependent variable, turnover intention.

The quantitative survey data were collected, entered, and analyzed using JMP Statistical Discovery software (v.11). Using a logistic regression
model, we determined the relationship between turnover intentions and the independent variables: job satisfaction, organizational commitment, and participant demographics. The logistic regression dependent variable was dichotomous with two discrete values; in this study, the two values of the dependent variables were participants’ intent to remain (1) versus intent to leave (0). The analysis modeled the relationship between the dependent variable and the independent variables, including satisfaction with workload, compensation, students, institutional supports, and life circumstances. The analysis model enabled the researchers to compare significance between satisfaction, commitment, participant demographics, and turnover intention variables and to create a predictive model based on the maximum likelihood estimation (MLE) (Vogt, 2007). Pearson’s Correlation Coefficient was used to show the strength of the relationship between the independent variables, and a T-test was performed to determine the correlations’ statistical significance using a $p$-value < .05. The relationship between the dichotomous dependent variable and each of the independent variables was measured by the bi-serial correlation, where one variable is dichotomous and the other variable is continuous.

RESULTS

As noted in Larkin (2015) and Larkin et al. (2016), study participants reported low levels of turnover intentions in the immediate, intermediate, and long-term future (see Table 1). Addressing our first guiding question, the data reveals that online teacher turnover intentions are significantly lower than the actual turnover of traditional teachers (roughly 40%) and more closely aligned with national turnover trends (roughly 19%) across all industries.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover Intention Items</td>
</tr>
<tr>
<td>Item</td>
</tr>
<tr>
<td>I intend to keep teaching online.</td>
</tr>
<tr>
<td>It is likely I will search for a new job in the next year.</td>
</tr>
<tr>
<td>In five years, I see myself still teaching online.</td>
</tr>
<tr>
<td>I will teach online only until a better opportunity arises.</td>
</tr>
<tr>
<td>I would like to remain teaching online for the remainder of my career.</td>
</tr>
</tbody>
</table>
Turnover Intention Item 1: I intend to keep teaching online.

The statistically significant predictors were Survey Item 21 (How many total online students do you typically teach each semester?) and the Affordances scale, in which items represent the flexibility and conveniences of teaching online. The odds ratio for the total number of online students taught is 1.022; this measure means that each additional student has the effect of increasing the odds of intending to keep teaching online by 2.2%.

The odds ratio of the Affordance scale was 1.484, which means each additional point on the Affordance scale increases the odds of intending to keep teaching online by 48.4%. Because the Affordance scale is made up of six different survey items, it is difficult to ascribe which item would produce a greatest probability or percent chance of teachers remaining in their online teaching position. However, this odds ratio indicates the affordances of online teaching have a positive influence on intending to remain teaching online.

Turnover Intention Item 2: It is likely I will search for a new job in the next year.

The statistically significant predictors are Demographic Item 7 (How many years have you taught in an online school, where classes are online and students are not required to come to campus for class?) and the Overall Satisfaction scale, in which items directly measure participants’ satisfaction with online teaching. The odds ratio for item seven (How many years have you taught in an online school) is 1.462. Each additional year of online teaching experience increases the odds of not searching for a new job next year by 46.2%. For the Overall Satisfaction scale, the odds ratio is 1.448. Each additional point on the Overall Satisfaction scale decreases the odds of searching for a new job next year by 44.8%.

Turnover Intention Item 3: In five years, I see myself still teaching online.

The most statistically significant predictor of turnover was Demographic Item 14, which asks, “When hired to teach online, were you assigned a mentor?” In this analysis, the odds measured the relative likelihood of one particular value (turnover intention), relative to the likelihood of a reference value (mentoring). The results are displayed in a two-way contingency table (see Table 2). In this table, the columns hold the data addressing the intent to stay, while the rows display the data responses addressing whether
the participant was assigned a mentor. As indicated in the table, a total of 88 people replied that they did see themselves teaching online in five years while only 21 did not. A total of 78 had a mentor and a total of 31 did not.

**Table 2**

Two-Way Contingency Table: Mentored Teachers and Turnover Intentions

<table>
<thead>
<tr>
<th>Item 3 - In five years, I see myself still teaching online.</th>
<th>Mentored</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td>68</td>
<td>10</td>
<td>78</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>20</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>88</td>
<td>21</td>
<td>109</td>
</tr>
</tbody>
</table>

Based on this contingency table, the Pearson’s chi-square value was calculated to be 7.325 with one degree of freedom. The chi-square analysis also revealed a p-value of 0.0068, meaning the value is statistically significant. In the case of Turnover Intention Item 3, “In five years, I see myself still teaching online,” the odds ratio is 3.74, which means that teachers who intend to stay are 3.74 times more likely to have been assigned a mentor than those who indicate they do not plan to stay. Furthermore, the measure can be restated more directly as K-12 online teachers who are assigned a mentor indicate a 274% increase in the likelihood of intending to stay in the profession for five years.

*Turnover Intention Item 4: I will teach online only until a better opportunity arises.*

The statistically significant predictors are Demographic Item 8 (Total years having been a full-time teacher) and the Affective Commitment scale, which measures participants’ organizational commitment as personal internalization of the goals and values or their place of employment. The odds ratio for Demographic Item 8 (Total years having been a full-time teacher) was 1.123. Each additional year having been a full-time teacher, regardless of school type, decreases the odds of teaching online only until a better opportunity arises by 12.3%. For the Affective scale, the odds ratio was 1.151. Each additional point on the Affective scale decreases the odds of teaching online only until a better opportunity arises by 15.1%.
Turnover Intention Item 5: I would like to remain teaching online for the remainder of my career.

The statistically significant predictors are the Student Interaction scale and the Affordance scale. The odds ratio for the Student Interaction scale is 1.306. Each additional point on the Student Interaction scale increases the odds of remaining teaching online for the remainder of one’s career by 30.6%. For the Affordance scale, the odds ratio is 1.336. Each additional point on the Affordance scale increases the odds of remaining teaching online for the remainder of one’s career by 33.6%.

Summary of Predictive Model

Addressing our second guiding question, statistically significant results from the five turnover intentions questions on the survey have illuminated variables that influence K-12 online teacher retention (Table 3). The increased likelihood of influence of each variable serves as a component of the predictive model applicable to the work of K-12 online school leaders.

<table>
<thead>
<tr>
<th>Turnover Intention Item</th>
<th>Statistically Significant Relationship to Turnover Intention Item</th>
<th>Variable Description</th>
<th>Odds Ratio</th>
<th>Increased Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>I intend to keep teaching online.</td>
<td>Survey Item 21 How many total online students do you typically teach each semester?</td>
<td>1.022</td>
<td>+ 2.2% per student taught</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affordances Satisfaction Scale Satisfaction with job affordances</td>
<td>1.484</td>
<td>+ 48.4% per point increase on Affordances Scale</td>
<td></td>
</tr>
<tr>
<td>It is likely I will search for a new job in the next year.</td>
<td>Demographic Item 7 How many years have you taught in an online school?</td>
<td>1.462</td>
<td>+ 46.2% per year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall Satisfaction Overall job satisfaction score</td>
<td>1.448</td>
<td>+ 44.8% per point increase on Affordances Scale</td>
<td></td>
</tr>
<tr>
<td>In five years, I see myself still teaching online.</td>
<td>Demographic Item 14 When hired to teach online, were you assigned a mentor?</td>
<td>3.74</td>
<td>+ 274% when assigned a mentor</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 continued

<table>
<thead>
<tr>
<th>Turnover Intention Item</th>
<th>Statistically Significant Relationship to Turnover Intention Item</th>
<th>Variable Description</th>
<th>Odds Ratio</th>
<th>Increased Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will teach online only until a better opportunity arises.</td>
<td>Demographic Item 8</td>
<td>Total years of full-time teaching experience</td>
<td>1.123</td>
<td>+ 12.3% per year of teaching experience</td>
</tr>
<tr>
<td></td>
<td>Affective Commitment Scale</td>
<td>Internalizes norms and values of organization</td>
<td>1.151</td>
<td>+ 15.1% per point increase on Affective Commitment Scale</td>
</tr>
<tr>
<td>I would like to remain teaching online for the remainder of my career.</td>
<td>Student Interaction Scale</td>
<td>Satisfaction with student interactions and relationships</td>
<td>1.306</td>
<td>+ 30.6% per point increase on Student Interactions</td>
</tr>
<tr>
<td></td>
<td>Affordances Satisfaction Scale</td>
<td>Satisfaction with job Affordances</td>
<td>1.336</td>
<td>+ 33.6% per point increase on Affordances Scale</td>
</tr>
</tbody>
</table>

Limitations

Readers should be aware of several limitations as they consider the findings. The data was gathered using a convenience sample in a single state, wherein the results are not generalizable beyond this group of online teachers; however, these findings may be transferrable to other similar settings. The use of a self-report instrument may result in participants over or under reporting a phenomenon. Furthermore, as a predictive, non-experimental correlational study, claims of cause and effect cannot be made. The average teaching experience of participants was 12.54 years. Traditionally, teacher turnover occurs within the first five years of teaching; however, these teacher participants have already been retained past the critical 5-year point of teacher attrition. Therefore, participants’ turnover intentions may be higher and even misleading compared to the intent of a new teacher just beginning their teaching career. An important component, which this study lacked, is follow-up in which the researchers could compare participants’ turnover intentions (stay or leave) versus their turnover actions. As more longitudinal data concerning K-12 online teachers emerges, attention should be paid to the attrition of online teachers.
DISCUSSION

Mentoring

Perhaps the most salient data in this study, the assignment of a mentor proved to have the largest effect size on teachers’ intent to remain in the online classroom. The 78 participants assigned a mentor were 274% more likely to intend to stay at their job than the K-12 online teachers who were not assigned a mentor when hired to teach online. The measured effect has practical value for K-12 online school leaders, who seek to retain the faculty in which they invest. These results suggest that mentors play a vital role in preventing the attrition of K-12 online teachers, an important implication for administrators of K-12 online schools. Green, Alejandro, and Brown (2009) suggested that in order to support and retain new online teachers, the new teachers will require continuous training, mentoring, and opportunities for collaboration. As with supporting traditional classroom teachers, most online learning theorists emphasize the importance of leveraging social capital to develop a strong peer coaching and mentoring model to serve not only as a retention and quality control tool to support and develop new teachers’ skills, but also a way to assimilate new faculty into the online culture, reduce stress, and offer encouragement (Deubel, 2008; Green et al., 2009; Storanht, Dossin, & Lacher, 2012; Sugar & Wilson, 2005).

Affordances

Affordances of the job, or the conveniences it offers its employees, proved to be a highly predictive determining factor in an employee’s decision to remain at their job in both the immediate and long-term future. The relationship between affordances and retention was further supported by both quantitative survey data and qualitative focus group interviews conducted by the researchers (see Larkin, 2015 and Larkin et al., 2016), in which affordances of online teaching was identified as the most satisfying aspect of their job. In the larger survey on teacher satisfaction, the Affordances scale had a mean scale score of 4.66 on a 5-point Likert scale. These findings suggest a direct link between online teachers’ satisfaction with the flexibility the job affords them and their intent to remain at their online school (Giacometti, 2005).

Placing value in the affordances of the job could be further examined by participants’ motivation for entering the field of online teaching and
learning. Participants identified the convenience and flexibility to teach without regard to time or location as the most satisfying aspect of their job. Reported reasons for entering the field of online teaching ranged from staying at home to care for young children or aging parents, struggling with classroom management in the traditional classroom, the ability to travel, to being able to retain their job (seniority and benefits) as their spouse’s job moved them out of state or overseas. Collectively, the affordances of online teaching satisfies the life circumstances of participants, producing high levels of satisfaction and a commitment to remain at their job.

Teaching Experience

The predictive model revealed that as participants’ teaching experience increased, whether online or traditional, so did their intention to remain in their current position. This evidence is supported by the work of Mathieu and Zajac (1990), who supposed that the longer an employee remains with their organization, the greater their individual investment in the organization (i.e. seniority, pension, vacation, promotions, salary or raises) and the more likely they will continue their relationship with their organization.

Shea (2007) recommended continuous professional learning and training as a strategy for retaining experienced online instructors. The more times an instructor teaches a course online, they typically have a higher interest in continuing to do so because of the gained experience in online course management, online pedagogy, and design. Teachers’ increasing commitment over time suggests that employers of online teachers should spend more time developing, strengthening, and supporting their novice online teachers.

Affective Commitment

Of the three types of organizational commitment, the Affective Commitment scale produced the highest mean score of 23.05 points out of 30, or an average of 3.8 points on a 5-point Likert continuum. The commitment score indicates that participants felt both emotionally and professionally committed to the mission of their organization. When employees possess affective commitment, they desire to see their organization succeed in its goals, and feel a sense of pride for being a member of the organization (Allen & Meyer, 1990; Cohen, 2003; Meyer, Kam, Gildenberg, & Brem-
Predicting Turnover

The data is encouraging for the field of K-12 online teaching and learning, as online teacher participants overwhelmingly exhibited affective commitment to their online school. Meyer and Allen (1997) emphasized the importance of affective commitment, explaining that employees with strong affective commitment are motivated to higher levels of performance and are more likely to make meaningful contributions than employees who expressed normative or continuance commitment. Cohen (1996) similarly found that affective commitment was more highly correlated with job performance and remaining on the job than any other type of commitment.

**Students Interactions**

When analyzing the long-term career intentions of online teachers, those who were more satisfied with their level of student interaction, or the depth of those relationships, were more likely to remain employed in the online school setting. In a multivariate analysis of factors determining online teacher satisfaction, the strongest correlation existed between online teacher’s overall satisfaction and their satisfaction with their student interaction ($r = 0.65, p = <.0001$), suggesting that as an online teacher’s overall satisfaction score increases or decreases, so does their student interaction score. Conversely, teachers who missed building relationships with students and families in a face-to-face setting are more likely to leave the online teaching environment. These findings confirm previous research indicating that personalized interactions with online students was highly satisfying for some teachers, whereas the lack of audience and energy found in a traditional face-to-face classroom was identified as a drawback to online teaching by other teachers (Borup & Stevens, 2016).

**Student Numbers**

The number of students taught per semester was a predicting factor for immediate turnover intentions. As the number of assigned students increased, so did the likelihood of the teacher remaining in the online classroom in the immediate future. The relationship between a large student number and immediate turnover intentions seems counterintuitive as one might assume that increasing student numbers would decrease satisfaction.
because it increases teacher’s workload; however, one must consider the practice of pay-per-student that is common in the online schools surveyed, making this finding an issue of compensation. This finding was contradictory to our assumptions that online teachers would have similar perceptions of small class sizes as seen with teachers in brick-and-mortar schools (MetLife, 2012; RAND Education, 2000; Vassallo, 2014.)

CONCLUSIONS

Our study offers several implications for school leaders and researchers in the field. Addressing our first guiding question, the data revealed that online teacher turnover intentions are significantly lower (19%) than the actual turnover of traditional teachers (roughly 40%), suggesting a greater workforce stability. Using a predictive model, our second guiding question revealed specific moderating variables that increased the likelihood the participants will remain in the field of online teaching and learning, which could inform the interviewing and hiring practices of online school administrators. The data revealed that the flexibility and affordances of online teaching was highly predictive in the retention of online teachers. Additionally, as the number of years of teaching experience increased, whether in a traditional or online classroom, so did the likelihood of remaining employed at an online school. Identification with and commitment to the mission of online schools, interactions with students, and engaging in an online teacher mentorship program also proved to be highly predictive in nature.

Our third guiding question sought to specify what hiring and onboarding practices K-12 online leaders can employ to improve teacher retention. When considering new online teacher candidates, school administrators should devise application or interview questions that address these constructs in an effort to identify teacher candidates who are likely to remain in the online classroom. Further, online school leaders should carefully design an onboarding program wherein teachers new to online teaching are assigned an experienced online teacher as a mentor. In this manner, online leaders may preemptively decrease attrition through their hiring practices.

We encourage K-12 online school leaders to assign a mentor to each new hire; however, we cannot clarify which mentoring model will have the greatest effect on teacher retention with the current data. While study participants reported whether they received a mentor and gave some indication as to the frequency of their meeting, we do not know what the mentoring entailed, or how this process varied from school to school. Mentoring may include co-teaching an online course with an experienced online teacher,
or scaffolding the new teachers’ level of responsibility until they are ready to assume primary responsibility for the course. Further research is needed to study and analyze the mentoring models of various online schools in the hopes of identifying the most effective components and practices that can then be disseminated. Future research should investigate specific models, frequencies, durations, and mediums of mentorship in the K-12 online environment to support school leaders and mentors in designing mentorship programs that positively effect online teaching practices and student learning outcomes, while also reducing the likelihood of voluntary turnover.

Employee turnover is a problem that plagues all industries, and historically education has been affected inequitably with high teacher turnover rates. Fortunately, this study found that the problem is not as dire in the K-12 online schools that we examined as it is in those traditional brick-and-mortar environments. In addition to finding a relationship between K-12 online teachers’ job satisfaction, commitment, and intent to remain employed in the online setting, we were able to use a predictive model to provide K-12 online leaders with specific strategies for reducing the turnover intention of their K-12 online teachers.

References


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APPENDIX A

Job Satisfaction and Commitment of Online Teachers (JSCOT)

The purpose of this study was to identify variables influencing job satisfaction among K-12 online teachers, investigate the level of K-12 online teacher’s organizational commitment and intent to remain, and to develop a survey instrument (JSCOT) to assess K-12 online teacher’s job satisfaction and commitment. Upon conclusion of the study, the researcher gleaned participants’ experiences and perceptions of online teaching in relation to job satisfaction, organizational commitment, and intent to remain in the field of K-12 online teaching to further develop the JSCOT and to make recommendations for research in the field of K-12 online teacher satisfaction and commitment.

Participants must meet the following criteria for inclusion in the study:
- 21+ years of age
- hold a valid teaching certificate
- possess one year of teaching experience
- currently teaching part-time or full-time in a K-12 online environment

Completion of this survey will require approximately 15 minutes.
- I agree and give my consent to participate in this research project. I understand that participation is voluntary and that I may withdraw my consent at any time without penalty.

- I do not agree to participate and will be excluded from the remainder of the questions.

Demographic Questions

Please indicate your sex:
- Male
- Female

1. Please indicate your age range:
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
• 55-64 years old
• 65-74 years old
• 75 years or older

2. What is the highest level of education you have completed?
   • 4-year Bachelor’s Degree (B.A./B.S.)
   • Master’s Degree (M.A./M.S.)
   • Specialist’s Degree (Ed.S.)
   • Doctorate (Ph.D., Ed.D., J.D., M.D.)

3. How would you describe your current employment status at your online school?
   • Employed full-time
   • Employed part-time

4. How many years have you taught in a traditional school in which students come to campus for class (not including student teaching experience)?
   • [Open Ended]

5. How many years have you taught in a hybrid school in which students come to campus for class part-time (not including student teaching experience)?
   • [Open Ended]

6. How many years have you taught in an online school, where classes are online and students are not required to come to campus for class (not including student teaching experience)?
   • [Open Ended]

7. Please indicate how many total years you have been a full-time teacher.
   • [Open Ended]

8. Check all that apply to describe the context of your current online school:
   • State
   • District
   • Private
   • Charter
• Public, non-charter
• For-Profit
• Non-Profit

9. Check all that apply to describe your current online teaching position:

• Kindergarten
• 1st Grade
• 2nd Grade
• 3rd Grade
• 4th Grade
• 5th Grade
• 6th Grade
• 7th Grade
• 8th Grade
• 9th Grade
• 10th Grade
• 11th Grade
• 12th Grade

10. Check all that apply to describe your current online teaching position

• Language Arts
• Math
• Science
• History/Social Studies
• Business/Technology
• Reading ESOL
• Special Education
• Physical Education
• Media Center
• Art
• Performing Arts
• Foreign Language

11. Which of the following best describes your current online teaching setting?

• Online School
• Hybrid/Blended School (some face-to-face activity)
• Other:
12. Where did you receive your online teacher preparation? Select all that apply.
   - College or University
   - Place of employment (ex: New Teacher Orientation or Professional Development)
   - Informal personal research and practice
   - Did not receive online teacher preparation

13. When hired to teach online, were you assigned a mentor (someone not in a supervisory or evaluative position over you)?
   - Yes
   - No

14. If you were assigned a mentor, how often did you meet with your mentor?
   - [Open Ended]

15. When teaching online, which type of course do you teach most often?
   - Courses I’ve designed
   - Courses designed by others

16. At your institution, are you given permission and access to modify online course content?
   - Yes
   - No

17. How many different online course preps do you typically teach in a semester? (Ex: 2 sections of Math and 3 sections of Science = 2 different course preps)
   - [Open Ended]

18. How many online students do you typically advise or provide non-instructional support to each semester?
   - [Open Ended]

19. How many total online students do you typically teach each semester?
   - [Open Ended]
20. How many online students do you typically teach in a single course section (or class roster)?
   - 0-9 students
   - 11-20 students
   - 21-30 students
   - 31-40 students
   - 41-50 students
   - 51-60 students
   - 61-70 students
   - 71-80 students
   - 81-90 students
   - 91-100 students
   - 101 + students

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**Online Job Satisfaction Questions**

*Modified with permission from Bollinger, Inan, & Wasilik (2009, 2014)*

Please answer the following questions to the best of your ability. Your identity will be kept private and your answers will be made anonymous if used in an analysis.

Select: (5) strongly agree
   (4) agree,
   (3) neither agree nor disagree,
   (2) disagree,
   (1) strongly disagree

1. My interactions with online students are satisfying.

2. I am satisfied with the convenience of the online teaching environment.

3. My online students are enthusiastically involved in their learning.

4. I feel my pedagogy and methodology are constrained when teaching online compared to a traditional, face-to-face course. [R]

5. I have adequate technical support from my institution.

6. I have a higher workload when teaching an online course as compared to a traditional, face-to-face course. [R]
7. I miss face-to-face contact with students when teaching online. [R]

8. I am satisfied with the lack of student behavior challenges in the online environment.

9. I am satisfied with the way students are assessed in online courses.

10. My students are very active in communicating with me regarding online course matters.

11. I appreciate that I can access my online course any time at my convenience.

12. In an online course, I have to be more creative in terms of the resources used than I do in a traditional, face-to-face school. [R]

13. At my institution, online teachers are given sufficient time to design and/or modify online courses.

14. I am satisfied with the content quality of the online courses I teach.

15. My institution provides the necessary technology tools (i.e. equipment and software features) for teaching online.

16. There is reduced sense of collegiality, community, and collaboration amongst online teachers as compared to traditional, face-to-face teachers. [R]

17. I am equally satisfied with teaching online as I am teaching in a traditional, face-to-face setting.

18. My online students are somewhat passive in their participation in class discussions. [R]

19. I am satisfied that my students can independently access their online courses from almost anywhere.

20. I teach online because it satisfies my personal needs and life circumstances.
21. I am satisfied with the training and professional development I’ve received to support my role as an online teacher.

22. I receive fair compensation and incentives for my role at the online school.

23. I do not get to know my online students as well as I would traditional, face-to-face students. [R]

24. Online teaching is satisfying because it allows me to reach students who otherwise may not be successful or have access to traditional classes.

25. I am satisfied with the quality of student work in online courses.

26. I feel isolated when teaching online. [R]

27. I am satisfied with my position as an online teacher.

28. I am more satisfied teaching online than I am teaching in a traditional, face-to-face setting.

Open-Ended Questions:
29. What are some dissatisfying job-related factors that might make you consider leaving online teaching?

30. What are some satisfying job-factors that encourage you to remain teaching online?

Organizational Commitment Questions

*Unmodified questionnaire with permission from Meyers and Allen (1991, 1997)

Please answer the following questions to the best of your ability. Your identity will be kept private and your answers will be made anonymous if used in an analysis.

Select: (5) strongly agree
(4) agree,
(3) neither agree nor disagree,
(2) disagree,  
(1) strongly disagree

Affective Commitment Scale Items
I would be very happy to spend the rest of my career in this organization.

1. I really feel as if this organization’s problems are my own.
2. I do not feel like “part of the family” at my organization. [R]
3. I do not feel “emotionally attached” to this organization. [R]
4. This organization has a great deal of personal meaning for me.
5. I do not feel a strong sense of belonging to my organization. [R]

Continuance Commitment Scale Items
It would be very hard for me to leave my organization now, even if I wanted to.

1. Too much of my life would be disrupted if I decided I wanted to leave my organization right now.
2. Right now, staying with my organization is a matter of necessity as much as desire.
3. I feel that I have too few options to consider leaving this organization.
4. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.
5. If I had not already put so much of myself into this organization, I might consider working elsewhere.

Normative Commitment Scale Items
I do not feel any obligation to remain with my current employer. [R]

1. Even if it were to my advantage, I do not feel it would be right to leave my organization now.
2. I would feel guilty if I left my organization right now.

3. This organization deserves my loyalty.

4. I would not leave my organization right now because I have a sense of obligation to the people in it.

5. I owe a great deal to my organization.

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**Turnover Intention Questions**

**Answer:** Yes or No

1. I intend to keep teaching online.

2. It is likely I will search for a new job in the next year. [R]

3. In five years, I see myself still teaching online.

4. I will teach online only until a better opportunity arises. [R]

5. I would like to remain teaching online for the remainder of my career.

[R] = Reverse Likert scoring for negatively worded items.