

between feelings of isolation in the bricks and mortar school and access to watch another teacher, seek advice from fellow teachers and communication from main office and direct supervisor. This was in contrast to that of the online teachers who reported a high level of isolation. The more time spent away from other teachers, administration and their direct supervisor, the more isolated they felt. Several questions on the survey were used to target feelings of isolation felt by the online teacher versus that of the bricks and mortar teacher: the ability to speak with and work with other teachers, communication with the school office and communication from a direct supervisor. In the question that asked if teachers actively seek advice from fellow teachers, for the bricks and mortar teacher, there was no correlation between seeking advice and feelings of isolation for the bricks and mortar teacher. This was the direct opposite from the feelings of the online teacher who did not actively seek advice and felt isolated. As well, there was no correlation between feelings of isolation for the bricks and mortar teacher and having contact with their school office. However, for the online teacher there was a significant relationship between feelings of isolation and no contact with the school office. Finally, a correlation was used to see if limited contact from a teacher's direct supervisor resulted in isolation. When the teachers responded about their experiences teaching in the bricks and mortar setting, there was a positive correlation between the more contact they had from their direct supervisor and how isolated they felt. For the online teacher, the less contact they had from their direct supervisor, the more they felt isolated.

Teacher isolation was defined as teachers who are physically separated from other teachers. This autonomous, independent work, whether it occurs as a result of choice or circumstance, results in seclusion. As we can see from the results of both the Pearson r correlation metrics and the open-ended and Likert type descriptive statistics, teachers in the online school setting who worked in isolation felt more isolated than their bricks and mortar counterparts.

6.5. Research Question Four

Research question four was designed around self-efficacy to see to what extent the online teacher could transfer previous self-efficacy felt in the bricks and mortar school to that of the online school: To what extent do first and second grade teachers' levels of self-efficacy from previous brick and mortar experiences transfer to the online school setting? Hypothesis 4, that the reported levels of self-efficacy among first and second grade teachers would be less compared to when they taught in the bricks and mortar setting, was affirmed.

The Pearson r correlation metrics showed a correlation between responses associating no transfer of self-efficacy felt in the bricks and mortar school to that of the online school. The correlation metric noted that the relationship between variables intended to measure levels of self-efficacy in the bricks and mortar setting and those same variables in the online setting (the ability to calm a student down who is disruptive, get students to follow classroom rule and establish a classroom management system) were all moderately negative correlations. This means that the longer a teacher works in isolation, the lower their self-efficacy will be. Teachers who work in isolation in the online setting noted that they have little management control over their students in the online setting. Their self-efficacy is lower as self-efficacy is a teacher's belief that they are having some degree of control in the classroom which promotes learning. This was in contrast to the bricks and mortar teachers. When using those same variables, they reported a high level of self-efficacy. Moreover, the correlations between working from home in isolation and a teacher's ability to motivate students, have students value learning and believing they can do well in school (self-efficacy) also were moderate and negative. This was again in contrast to those variables used to measure self-efficacy for the bricks and mortar teacher, which noted a high level of self-efficacy when working in the bricks and mortar setting. What this essentially means is that when working in an online school, teachers do not believe they can change or help learning in the classroom by adapting the curriculum as needed. In contrast, the bricks and mortar teacher does believe she can change the lessons and adapt the learning when needed. Therefore, the level of self-efficacy for the online teacher was lower compared to when they taught in the bricks and mortar setting.

These findings are consistent with the research done by Martin [19] who stated that the theory and practical application of teaching that is based on the bricks and mortar setting cannot necessarily be transferred over to the online setting. For example, the online teacher no longer can physically see a student understand a concept or help a student immediately when they are struggling. The teacher must rely on the student to contact them when they need help.

One item that cannot be overlooked when looking at self-efficacy for the online teacher compared to that of the bricks and mortar teacher is the use of technology. As a respondent stated, "When the technology fails you fail as well because you can't help your students as the books etc. are online." When technology fails, teachers have a decrease in their ability as a teacher to effectively teach a lesson on the computer, which may in turn decrease a teacher's sense of self-efficacy. For the bricks and mortar teacher, the levels of self-efficacy

experienced in that setting cannot be compared with online teachers because bricks and mortar teachers are not dependent on technology in the classroom. The level of self-efficacy for the bricks and mortar teacher concerning technology in this researcher's opinion would deal with their sense of ability or efficacy in terms of how to incorporate technology into the daily classroom activities. This is, as said above, the complete opposite for the online teacher who relies on technology for the delivery, support and overall teaching of lessons. Therefore, while technology can play a large part in the online teachers' feelings of self-efficacy, it cannot be measured against their bricks and mortar counterparts and therefore while interesting, it was not used in the measures of self-efficacy in this study.

7. Conclusion

The conclusion of this research study confirmed the hypotheses for all four research questions presented in this study. Data analysis and descriptive analysis showed that greater feelings of working in isolation predicted decreased feelings of lower self-efficacy for the online teacher.

8. Recommendations and future work

The results of this study lead to specific recommendations for future practice for online elementary schools.

Recommendation 1: Online elementary schools should provide a time, at least monthly, where teachers can meet each other in a face-to-face setting to decrease feelings of isolation. These meetings could be of professional nature or for staff to bond. The focus should be on getting teachers talking and removing or reducing the feelings of isolation that are associated with working from home.

Recommendation 2: Form an online personal learning community or Communities of Practice. These may help decrease feelings of isolation when meeting face-to-face is not possible. These types of group activities offer a place for teachers to discuss current trends in education and provide a time for teachers in general to gather online.

Recommendation 3: Administration should reach out to teachers in the online setting. This could be in the form of an email or personal phone call. The key is to let the teachers know there is someone at the main office to support them in their teaching role.

Recommendation 4: Alternative teaching opportunities (physical books and not e-books) should be made available when technology issues arise for the teacher and student. This is important because when technology goes down so does learning if all of the course materials are online. If

course materials are offline as well, then the learning can pick up where it was left off. For the teacher this would help with being able to support students at times in which the online materials are not available as well as provide different learning modalities students who prefer to sit down with a book.

9. References

- [1] Bennett, S., Maton, K., & Kervin, L. (2008, September 1). The digital natives debate: A critical review of the evidence. *British Journal of Educational Technology*, 39(5), 775-786.
- [2] Bawane, J., & Spector, J. (2009). Prioritization of online instructor roles: Implications for competency-based teacher education programs. *Distance Education*, 30(3), 383-397.
- [3] Yang, Y. & Cornelious, L. (n.d). Ensuring quality in online education instruction: What instructors should know? *Association for Educational Communications and Technology*, 3(7), 44-45.
- [4] Bandura, A. (1997). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology*, 25(5), 729-35.
- [5] Tschannen-Moran, M., & Woolfolk Hoy, A. (2001) Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- [6] Harris, J., Punya, M., & Koehler M., (2009) Teachers' technological pedagogical content knowledge and learning activity types: Curriculum –based technology integration reframed *Journal of Research on Technology in Education* 41(4), 393-416.
- [7] Conceicao, S., Strachota, E., & Schmidt, S. (2007). The development and validation of an instrument to evaluate online training materials. Online submission.
- [8] Finley, L., & Hartman, D. (2004). Institutional change and resistance: Teacher preparatory faculty and technology integration. *Journal of Technology and Teacher Education*, 12(3), 319-337.
- [9] Garrison, D.R. (2003). Self-directed learning and distance education. *American Journal of Distance Education*, 15, 7-23.
- [10] Tschannen-Moran, M., & Woolfolk Hoy, A. (2001) Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- [11] Jackson, P. A. (2007). Integrating information literacy into blackboard: Building campus partnerships for successful student learning. *The Journal of Academic Librarianship*, 33(4), 454-461.
- [12] Jonassen, D. H. (2000). Transforming Learning with Technology: Beyond Modernism and Post-Modernism or Whoever Controls the Technology Creates the Reality. *Educational Technology*, 40(2), 21-25.

[13] Dawley, L., Rice, K., & Hinks, M. (2010) .The status of professional development for K-12 online teachers: Insights and implications. *Journal of Technology and Teacher Education*, 17(4), 523-545.

[14] Gemin, B., Murin,A., Rapp,C., Watson J., & Vashaw. (2010) *Keeping pace with K-12 online Learning; An annual review of policy and practice*. Evergreen, CO: Evergreen Press.

[15] Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. New York: Teachers College Press.

[16] Dykman, C., & Davis, C. (2008). Online education forum: Part two--teaching online versus teaching conventionally. *Journal of Information Systems Education*, 19(2), 157-164.

[17] Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569-82.

[18] Goddard, R. D., Hoy, W. K., & Hoy, A. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher*, 33(3), 3-13.

[19] Martin, A. (2006). The relationship between teachers' perceptions of student motivation and engagement and teachers' enjoyment of and confidence in teaching. *Asia-Pa*