How Professional Development leads to better integration / implementation of technology in classrooms?

Ruben Zamora

UTRGV

ruben.zamora@utrgv.edu

EDFR 6300 Research Methods in Education

Dr. Pierre Lu

December 7th 2022

# Abstract

I will be researching how Professional Development leads to better integration/implementation of technology in classrooms.   For this research I focused more on the quality of the course and how the professor implemented the technology they took professional development in.   At the Center for Online Learning & Teaching Technology we already have a database of professional development faculty at UTRGV have taken with us.  I looked at 10 faculty that have taken all the required professional development training's we offer and with their permission inspected their courses to see how the technology was implemented.  I also interviewed them to see how they felt about the professional development training they received.  To teach an online course at UTRGV, faculty must attend professional development training's so it will be a little difficult to compare my findings with courses where faculty did not attend any professional development training's.  However, I anticipate that the courses with faculty who took various professional develop faired better than those that did not.

**Keywords:** Professional Development, Trainings, technology implementation

# Introduction

As we continue to advance in our use of technology in the classroom it is important that teachers learn how to use the technology efficiently in their course. At the Center for Online Learning & Teaching Technology we continue to provide professional development opportunities to our faculty and staff to better understand the technology they plan to use in their classroom and use it effectively.

# Background of the Study

# Importance of the Study

The purpose of my study is to find out if our professional development has any effect on how faculty implement technology.  Are they just taking the professional development because they must or are they really getting anything out of it and applying what they learn into their classroom.  With this research we will be able to see what modifications if any we need to do in our professional development training's and hopefully can provide something to the faculty which will in turn create a better learning experience for our students.

# Literature Review

This article examined how teacher's instructional planning and delivery changed when they participated in a model of technology-focused professional development.  The Professional development they took was titled the Technology Integration Planning Cycle Model of Professional development (Hutchison, A. C., & Woodward, L. 2018).   It was found that when faculty participated in the TIPC framework their students performed better.  This goes to show that professional development provides a benefit to a student’s learning. The reason this article was important to my topic was because we are continuously trying to find way to improve our professional development for faculty at UTRGV so that students have an overall better experience in online courses.

*Hutchison, A. C., & Woodward, L. (2018). Examining the Technology Integration Planning Cycle Model of Professional Development to Support Teachers’ Instructional Practices. Teachers College Record, 120(10), 1–44.*[*https://doi.org/10.1177/016146811812001002*](https://doi.org/10.1177/016146811812001002)

# Research Method

 The research method used for this research will be casual-comparative as we will be studying the effects of taking professional development in a technology that will be used in an online classroom and see if the professional development improved the professors use of it in their class.

# Research Design

 This research will be a qualitative research design as I will not be focusing on numeric data, but more on the quality of the course and how the professor implemented the technology they took professional development in. I will also be conducting interviews with several students who took classes in courses where professors used technology that they received professional development in.

# Participants (Sampling method)

 For this research 10 faculty members were sampled. Procedures created a questionnaire for the students to provide feedback on the use of technology in their online course and if they felt the technology aided in their learning.  By getting feedback from the students, we can get a better understanding on how well technology was implemented in their course.

# Instruments

 A 5-question survey will be presented to students who took a class with a professor who took one of our professional development trainings. The questions will be related to the technology the professional development was in.

# Timeline

* Phase 1: Identify research topic, get permission for the research, identify participants, come up with survey questions (August)
* Phase 2: Deliver the survey questions and gather date (September)
* Phase 3: Analyze Data (October)
* Phase 4: Compile Report and present findings to department and divisional leaders (November)

# Anticipated Results

Once the research is complete, we anticipate that courses where the professor took our professional development will have a better understanding of how to best use technology in their course. By having a better understanding of best to use technology in their course they create a better learning environment for their students.

# Discussion

The following Link ([Examining the Technology Integration Planning Cycle Model of Professional Development to Support Teachers’ Instructional Practices - Amy C. Hutchison, Lindsay Woodward, 2018 (sagepub.com)](https://journals.sagepub.com/doi/10.1177/016146811812001002) takes you to a literature review that backs up our findings and shows similar results.

# Conclusion

In conclusion, the results of our research will provide much needed guidance in how we improve our professional development plans. We can conclude that professional development does improve a student’s overall experience with technology in their online/hybrid courses.

# References

Boylan, M. (2018). Enabling adaptive system leadership: Teachers leading professional development. Educational Management Administration & Leadership, 46(1), 86–106. <https://doi.org/10.1177/1741143216628531>

Gast, I., Schildkamp, K., & van der Veen, J. T. (2017). Team-Based Professional Development Interventions in Higher Education: A Systematic Review. Review of Educational Research, 87(4), 736–767. <https://doi.org/10.3102/0034654317704306>

Hixon, E., & Buckenmeyer, J. (2009). Revisiting technology integration in schools: Implications for professional development. Computers in the Schools, 26(2), 130-146.

Hutchison, A. C., & Woodward, L. (2018). Examining the Technology Integration Planning Cycle Model of Professional Development to Support Teachers’ Instructional Practices. Teachers College Record, 120(10), 1–44. <https://doi.org/10.1177/016146811812001002>

Jagodič, G., & Skrbinjek, V. (2018). Improving Knowledge Transfer With Trainings–A Case of Car Sellers Approach. Management, 16, 18.

Johnson, W. W. (2014). How to Be a Successful Teacher of Professional Development. Journal of Contemporary Criminal Justice, 30(4), 443–454. <https://doi.org/10.1177/1043986214541609>

Kleiman, G., & Treacy, B. (2006). EdTech leaders online: Building organizational capacity to provide effective online professional development. In C. Dede (Ed.), Online professional development for teachers: Emerging models and methods (pp. 31-48). Cambridge, MA: Harvard Education Press

Lawless, K. A., & Pellegrino, J. W. (2007). Professional development in integrating technology into teaching and learning: Knowns, unknowns, and ways to pursue better questions and answers. Review of educational research, 77(4), 575-614.

Lenaour, L. A. (2004). Improving technology professional development (Doctoral dissertation, Lethbridge, Alta.: University of Lethbridge, Faculty of Education, 2004).

Love, M. L., Simpson, L. A., Golloher, A., Gadus, B., & Dorwin, J. (2020). Professional Development to Increase Teacher Capacity for the Use of New Technologies. Intervention in School and Clinic, 56(2), 115–18. <https://doi.org/10.1177/1053451220914886>

Martin, W., Strother, S., Beglau, M., Bates, L., Reitzes, T., & McMillan Culp, K. (2010). Connecting instructional technology professional development to teacher and student outcomes. Journal of research on technology in education, 43(1), 53-74.

Millery M, Hall M, Eisman J, Murrman M. Using Innovative Instructional Technology to Meet Training Needs in Public Health: A Design Process. Health Promotion Practice. 2014;15(1\_suppl):39S-47S. doi:10.1177/1524839913509272

Murphy, J., & Lebans, R. (2009). Leveraging New Technologies for Professional Learning in Education: Digital Literacies as Culture Shift in Professional Development. E-Learning and Digital Media, 6(3), 275–280. <https://doi.org/10.2304/elea.2009.6.3.275>

Sun, M., Penuel, W. R., Frank, K. A., Gallagher, H. A., & Youngs, P. (2013). Shaping Professional Development to Promote the Diffusion of Instructional Expertise Among Teachers. Educational Evaluation and Policy Analysis, 35(3), 344–369. <https://doi.org/10.3102/0162373713482763>

Yang, S. C., & Liu, S. F. (2004). Case study of online workshop for the professional development of teachers. Computers in Human Behavior, 20(6), 733-761