

The background of the slide is a photograph of a modern university building with large glass windows and a curved facade. In the foreground, there is a paved walkway and a landscaped area with a low concrete wall and some trees. The entire image is overlaid with a semi-transparent blue filter.

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The Influence of COVID-19 on Campus Leaders’ Curriculum Integration, Perceptions Towards, and Acquired Expertise in Technology

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Overview of the Problem

- Administrators are often overlooked when discussing the quality of online instruction (Yang, 2010). Campus leaders have an influence on school policies, staff morale, and the learning environment. Administrators face even more challenges as their roles evolve into virtual leaders. Yang (2010) studied campus leaders and their roles in online programs. He found that quality online programs were maintained at high levels when administrators understood the role of a virtual leader.
- Principals with positive attitudes toward technology saw more effective technology integration processes in schools, while principals with indifferent or negative attitudes toward technology saw little effort by teachers to integrate technology within the classrooms (Claro et al., 2017). More current research reveals that the success of a teacher in virtual settings relies heavily on the virtual leadership and perspective of the administrator on campus.
- Research shows that proficiency in technology has a direct positive correlation in efficient technology integration. The more training and support a teacher receives, the easier the programs and technology will be to integrate into the classroom (Overbaugh et al., 2015).

Purpose and Research Questions

The purpose of this study was to examine the influence of COVID-19 on campus leaders' curriculum integration, perceptions towards the usage, and acquired experience in technology. The study addressed the following research questions:

1. Is there a statistically significant mean difference between a campus leader's pre and post COVID-19 integration of technology into the curriculum?
2. Is there a statistically significant mean difference between a campus leader's pre and post COVID-19 perceptions towards technology?
3. Is there a statistically significant mean difference between a campus leader's pre and post COVID-19 acquired expertise using technology?, and
4. What are campus leaders' perspectives on how COVID-19 has impacted instruction on their campuses?

Mixed Methods

- Surveys and Interviews target Texas administrators of public schools (K-12)

Principal's Computer Technology Survey (Brockmeier & Gibson, 2009)

- Examines the administrator's....
 - (a) role in integrating technology into the teaching and learning process
 - (b) perceptions of computer technology in teaching and learning
 - (c) expertise/proficiency in using computer technology

Interviews

- Examine the common themes between Texas administrators and their opinion/perception of their role of support and technology in teaching and learning.

Participants:

- Surveys

- 171 Texas administrators from public schools
 - 62% female, 38% male
 - 55% White, 26% Hispanic, 15% African American
 - 37% elementary (K-5), 63% secondary (6-12)

- Interviews

- 10 Administrators (representing current demographic makeup of entire state of Texas)
 - 5 males, 5 females
 - 5 elementary, 5 secondary
 - 5 Title I schools, 5 non-Title 1 schools

Integration of Technology into the Curriculum

- The results of the paired t-test indicated there was a statistically significant mean difference between pre- and post-COVID-19 curriculum integration of technology, $t(170) = 4.28$, $p < .001$, $d = .70$ (large effect size), $r^2 = .25$.
- The average curriculum integration increased 45.6% from prior ($M = 14.9$) to post-COVID-19 ($M = 21.7$) indicating that the integration of technology into the curriculum increased.
- COVID-19 had a large effect on the integration of technology into the curriculum and 25.0% of the variance in their integration of technology can be attributable to the COVID-19 pandemic.

Perceptions towards Technology

- Results of the paired t-test indicated there was a statistically significant mean difference between pre- and post-COVID-19 perceptions of technology, $t(170) = 7.26$, $p < .001$, $d = .53$ (large effect size), $r^2 = .43$.
- The average perception of technology increased 106.1% from prior ($M = 9.8$) to post-COVID-19 ($M = 20.2$) indicating that the perception of how useful technology was increased.
- COVID-19 had a large effect on curriculum integration and 43.0% of the variance in their perception of technology can be attributable to the pandemic.

Acquired Expertise using Technology

- Results of the paired t-test indicated there was not a statistically significant mean difference between pre- and post-COVID-19 in terms of acquired expertise in technology, $t(170) = 0.63, p = .528$.
- The average acquired expertise reported by the campus leaders was similar prior to and post-COVID-19 indicating COVID-19 did not have an influence on the frequency of technology usage.
- The acquired expertise, or use of technology, by campus leaders did not change significantly when comparing prior to COVID-19 and present day.

Communication

Communication: All administrators felt that technology should be used for communication

- Elementary- focus on communicating from district to staff to parents
 - “I have become primarily the means of communication. Communicating from the district to the staff to the parents.” –Adam, Elementary AP, non-Title 1
- Secondary- focus on teachers to home/parents
 - “Teachers are seeing the benefits of using [Learning Platform] to effectively communicate with parents. They are able to build rapport virtually.” – Isaac, Junior High AP, non-Title 1
- Title I- used for communication, but needed to follow up with phone calls
 - “I think that [Learning Platform] is great for certain populations, but its not the best option for us in communicating to our parents. Some of our parents check their email, but nothing beats calling a parent.” –Erica, Elementary AP, Title 1

Support - Emotional/Behavioral

- Most administrators felt that they were providing MORE emotional support due to COVID-19
 - “I support my teachers a lot. Sometimes I have to remind them that they need to find balance in their lives. I value them being at their doors, greeting their students more than having them stress over how great their course page looks” – David, Elementary AP, Title 1
 - “I feel like a counselor. I have teachers crying in my office worried that they are doing what’s best for kids.” – Marissa, Junior High Principal, Non-Title 1
- Teachers overwhelmed with changes
 - “I spend my time helping teachers find resources because they seem stressed about tools. I make sure they are clear with our virtual look-fors, so that we can take that stress off of them.” – Carlos, Elementary AP, Title 1
- Students overwhelmed with changes
 - “Attendance and engagement is where I spend most of my time. Lack of engagement or not showing up for virtual class is a really big issue. I spend a lot of time calling and checking on students.” – David, Elementary AP, Title 1

Support - Technology

- Administrators were split- elementary administrators focused more on implementation of strategies and delivery of curriculum.
 - “While we were off-campus, helping teachers with how to instruct online was my sole role. I was helping them with that learning curve.” – Chad, Elementary Principal, Non-Title 1
- Secondary administrators were providing more technology support around a learning platform, more to parents and less to teachers
 - “I task my admin team in trying to take student technology problems or issues off of the teachers’ plates. They were in charge of calling students and zooming with them and making sure they were familiar or able to access [Learning Platform].” – Peter, Junior High Principal, Non-Title 1

Replacement vs. Creation

- Administrators were split- elementary administrators feel that their teachers were using technology more for replacement, since in person was not available.
 - “Technology used to be more for reinforcement. Now, it is more for trying to do what we used to do in the classroom virtually.” – Chad, Elementary Principal, Non-Title 1
 - “My teachers were more concerned with finding tools like a sketchpad that they could use like a chalkboard. It’s not about creating or doing new things, just for substituting what they cannot do in person.” - Erica, Elementary AP, Title 1
- Secondary administrators feel that teachers were using technology for creation and project-based learning.
 - “Students are able to cater their experience to their own interests. If they are working with non-fiction or historical-fiction, they can do research on their projects. They have more options of things to choose from: their own articles, authors...They take more ownership of their learning and create products.” – Isaac, Junior High AP, Non-Title 1

Conclusions

- Administrator's roles differ based on campus/district expectation
- Elementary administrators seemed to support their teachers equally-technology, curriculum, and emotionally/behaviorally
- Secondary administrators seemed to support their teachers more with technology and communication, and emotionally/behaviorally, not curriculum
- Most administrators agreed that technology should be used for communication and creation – not JUST replacement

Research Design Limitations

- **Generalizability:**
 - The sample will be limited to campus leader belonging to one state. Generalizing this research to other states with different demographic populations or geographical settings should be done with caution.
- **Implementation of instruction varies:**
 - Implementation of instruction delivered virtually varies between those schools that are offering the option for in-person and virtual learning and those that have limited their students to only the in-person setting.
- **Delegation of Responsibilities:**
 - Campus leaders may have delegated the responsibility to support teachers during COVID-19 to staff such as campus technology specialists. Their attitude towards technology may not be a true reflection of how instruction has changed because they had others to better support their staff.

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