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EDTC810 - Statistics For Educational Research

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Article #1: How Does The Use Of Modern Technology Influence Language And Literacy Development: A Review

- Data Analysis Technique: The technique was to “explore the language and literacy skills children use for communicating via computer technology and consider existing literature on the proposed benefits and negative effects of such technology on these skills” (Watt, 2010).
- Analysis of Findings: In looking at the findings, the researchers concluded that the way students use computers and any digital learning device has shaped the way they are learning. There were connections drawn between the increased use of technology and literacy development as well as adolescent behavior. The inferential analysis of this research is important as it tries to remove bias from drawing a conclusion.

Article #2: Concepts And Tools For Digital Literacy

- Data Analysis Technique: When analyzing the data and drawing conclusions, the researchers were able to look at the feedback from all participants and implement changes and improvements to the DigEuLit program. The analysis allowed them to come up with a thorough framework for the program’s effectiveness.
- Analysis of Findings: These particular findings were only scratching the surface of what the researcher was striving to achieve. There is far more analysis that needs to be done. Given the small sample size and limited resources in conducting this research, the researcher believes far more in-depth analysis must be done. The students had the same variable and objective as the DigRuLit program, however, the outcomes vary based on the sample. From

there, the researchers need to correctly analyze the output and see if there is any connection between the program and student performance.

Article #3: Relation Between Digital Tool Practices In The Language Arts Classroom And Reading Comprehension Scores

- Data Analysis Technique: The technique used required several steps to properly analyze the data and draw conclusions. The researchers had to first analyze the student test scores as their one variable, but also factor in the teacher-driven variable of certain tendencies in the classroom. For example, their descriptive analysis required “the average reading comprehension scores for those students that responded to a particular response option (e.g., how much time did they devote to using a digital device in the language arts class the average reading comprehension scores for students in teachers classrooms” (Salmeron et al., 2023).
- Analysis of Findings: The descriptive analysis aligns perfectly with one’s qualitative research collection. Such insight into the participants’ mindset could not be achieved with just quantitative research. However, the in-depth, open-ended, fluid collection of information allowed the researcher to best analyze this information. From those responses, the researcher can use his or her inferential skills to best dissect and break down the data, albeit quantitative, that was given.

Article #4: How Digital Reading Differs From Traditional Reading: An Action Research

- Data Analysis Technique: The researchers based their data analysis technique largely on Creswell's research. Coding was done to find themes across the interview answers.
- Analysis of Findings: This research is done strictly off of the participant's responses to questioning. From there, what next? Coding and breaking down the responses of the participants is the obvious next step. It gives researchers the ability to gain more insight into their subjects' thoughts and ideas. "...qualitative research revolves around 'obtaining culturally specific information about the values, opinions, behaviors, and social contexts of particular populations'" (Family Health International, p. 1). That just continues to show the value of said research and allows the researcher to use his or her inferential skills to decipher what has been collected.

Article #5: Reading Digital Texts: Obstacles To Using Digital Resources

- Data Analysis Technique: Similar to the other qualitative studies analyzed in this paper, coding was used to find themes across students' interview answers. As for the writing assessment, any correlations between student performance and insight/opinion on digital-based instruction were also identified.
- Analysis of Findings: Again, using coding to identify themes within students' inter answers was essential. This coding coincides perfectly with data analysis as, "coding and analysis occur concurrently with data collection, although the type and timing of specific coding and analysis practices vary by method" (Pratt, 2023). This allows for researchers to properly collect and analyze data while being mindful of how to properly break it down, via coding.

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