

ENHANCING QUALITATIVE RESEARCH WITH AI: PROMISE, PITFALLS, AND PRACTICE

STEVEN BUSBY, PHD, FNP-BC

INMAN COLLEGE OF NURSING
BDAIC SENIOR DATA FELLOW



Introduction

Why/When to Use Qualitative Data

Benefits of AI use in Qualitative Research

Potential Pitfalls of AI use in Qualitative
Research

How Does it Work? What Can/Should I do?



WHO IS MY AUDIENCE?

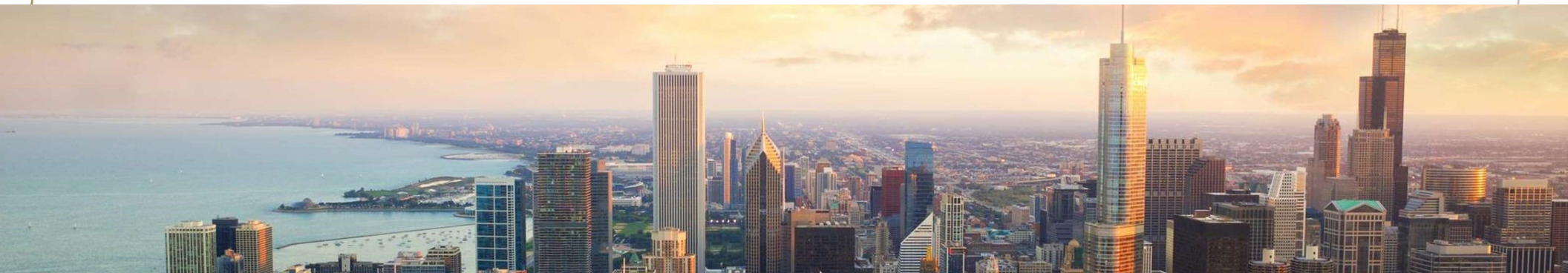
NEW TO QUAL?

USE QUAL, BUT NEW TO AI?

NEVER USED EITHER

COMFORTABLE COMBINING THEM?

HERE FOR THE TAYLOR SWIFT FAN CLUB MEETING?





WHY QUALITATIVE RESEARCH?

- How and why questions best answered by qual
- When nuanced meaning is necessary to answer a research question
- When human lived experience is an important outcome
- When little is known about a topic



TYPES QUALITATIVE RESEARCH

- Ethnography
- Phenomenology
- Qualitative Descriptive
- Grounded Theory

*DON'T WAIT UNTIL AFTER YOU HAVE STARTED
YOUR PROJECT TO DECIDE WHAT YOU ARE
DOING!*



The Impact and Process of Transition from Face-to-Face to Online Teaching During a Pandemic: A Grounded Theory Approach

Steven Busby, PhD, FNP-BC
Associate Professor, Gordon E. Inman College of Nursing
Belmont University, USA

Elena Wong Espiritu, PhD, OTD, OTR/L, BCPR
Associate Professor, College of Pharmacy & Health Sciences
Belmont University, USA

Marnie Vanden Noven, PhD, DPT, PT, ATC, CSCS
Associate Professor, College of Pharmacy & Health Sciences
Belmont University, USA

Jenny R. Mills, MSIS, MA
Professor & Director, Medical & Health Sciences Library, Thomas F. Frist, Jr. College of
Medicine
Belmont University, USA

Julie W. Hunt, MSSW, LCSW
Associate Professor & Director of Field, College of Pharmacy & Health Sciences
Belmont University, USA

Abstract

The COVID-19 pandemic required a “rethinking and retooling” of many educational interactions, especially in schools that offer primarily face-to-face educational models. The sudden necessity for altering teaching formats and styles created challenges and opportunities for faculty and their students. There is little understanding of the impact the abrupt switch had on faculty and students, or the process by which the transition took place. The purpose of this study was to develop a theory about the impact on and the processes used by faculty for implementing online education in response to the pandemic. A total of 24 faculty members from a private southeastern university in the United States that primarily uses a face-to-face educational model were interviewed. The grounded theory methods of Corbin and Strauss (2015) and Charmaz (2014) were used to inform the inquiry. The unexpected transition to online teaching impacted faculty and students personally, professionally, and academically. Faculty readiness to teach online was highly dependent on perceptions of self-efficacy, which in turn affected their perceptions of the transition. Study findings reinforce the need for university administrators to provide faculty with structured pedagogical support, specifically, technological and instructional design assistance, dedicated time to learn and incorporate instructional changes, and mental

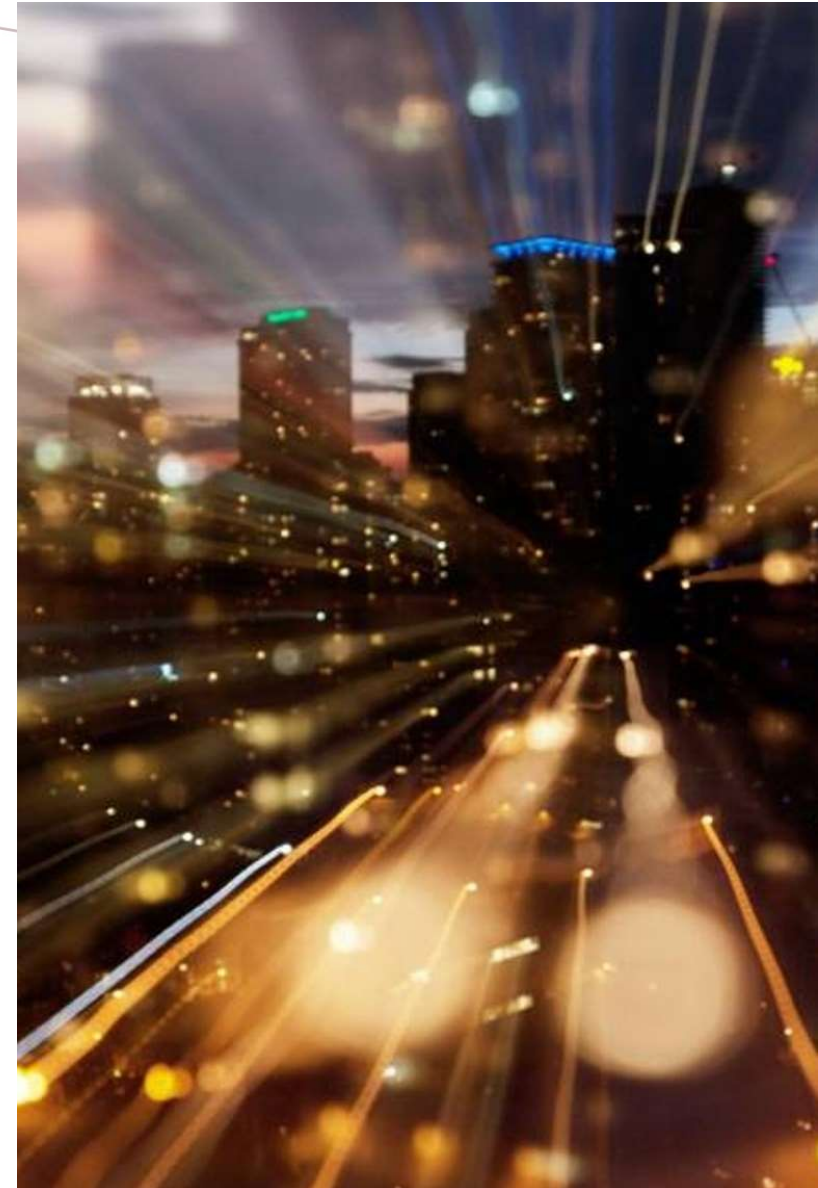


Table 1

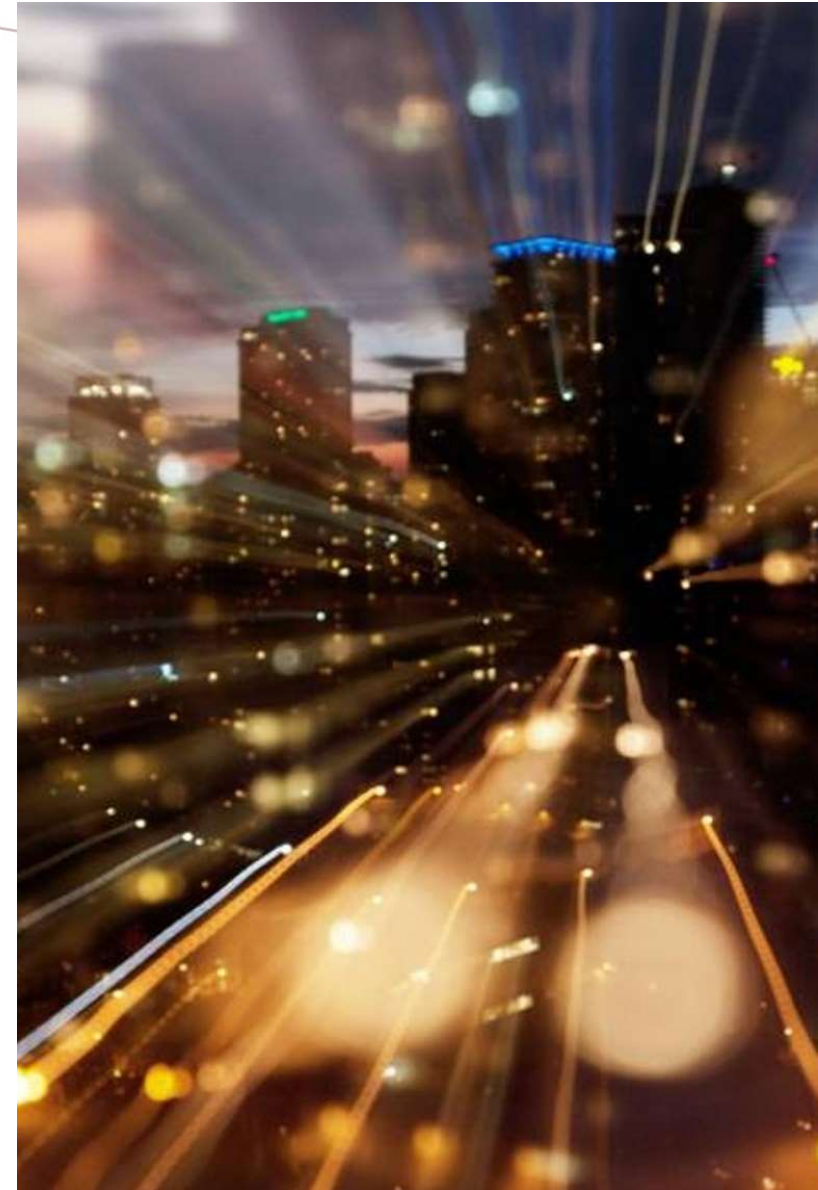
Categorical Demographic Characteristics of Participants

<i>Categorical variables</i>	<i>n</i>	<i>%</i>
Race		
African American	2	8.3
Caucasian	20	83.3
Chinese American	1	4.2
Hispanic American	1	4.2
Gender		
Female	15	62.5
Male	9	37.5
College		
Entertainment & Music Business	2	8.3
Business	2	8.3
Health Sciences	5	20.8
Science & Mathematics	8	33.3
Liberal Arts & Social Sciences	3	12.5
Pharmacy	1	4.2
Theology	3	12.5
Rank		
Adjunct	1	4.2
Instructor	1	4.2
Assistant Professor	8	33.3
Associate Professor	8	33.3
Professor	6	25.0

Table 2

Numerical Demographic Characteristics of Participants

<i>Numerical variables</i>	<i>n</i>	<i>Mdn</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Age	24	49	49.9	9.6	35 – 64
Yrs. Teaching 4-Year	24	16	17.1	10.2	5 – 42
Yrs. Teaching at Institution	24	9	13.9	9.5	4 – 34
Typical Percent In-Person	24	100	94.1	11.5	50 – 100
Typical Percent On-Line	24	0	5.9	11.5	0 – 50
Percent Knowledge-Based	24	75	72.1	17.8	40 – 100
Percent Skill/Application-Based	24	25	27.9	17.8	0 – 60



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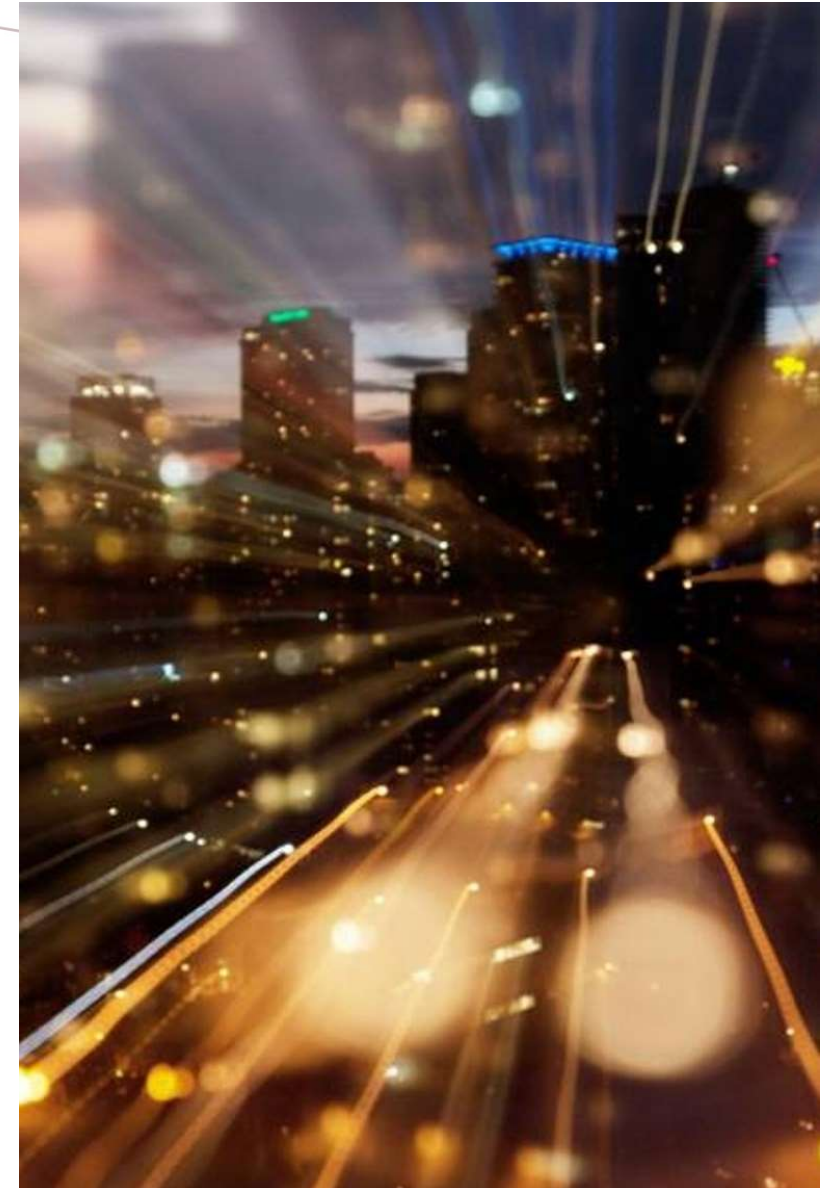
found teaching and interacting with students “very difficult” and experienced significant “reduced job satisfaction.” Later during the pandemic, faculty seemed to get their footing to some degree, with some faculty suggesting that it “wasn’t terrible” and that they “enjoyed the challenge.” Faculty also felt however, that subsequent semester performances suffered with one participant saying, “And the stress affected them more in the second year than it did that first spring.” Some administrative decisions that were made regarding student grading, however, were not supported by faculty. One such decision was to allow students to accept a pass/fail grade for their lowest grade to prevent undue impact on grade point averages.

The property of “student disengagement” could not be clearly linked to a timeframe under this conceptual heading. It nonetheless was clearly tied to the idea of the actual transition. Faculty felt that previously engaged students became disengaged because of the sudden and unexpected shift, especially because many students chose the university because it has traditionally relied on face-to-face teaching methods with classroom interaction. One participant said, speaking about the perceived engagement of students before and after the transition, “...feeling like students were engaged...in most of my sections...being very interactive, to being painfully not.”

Table 7

Concept of Perception of Transition

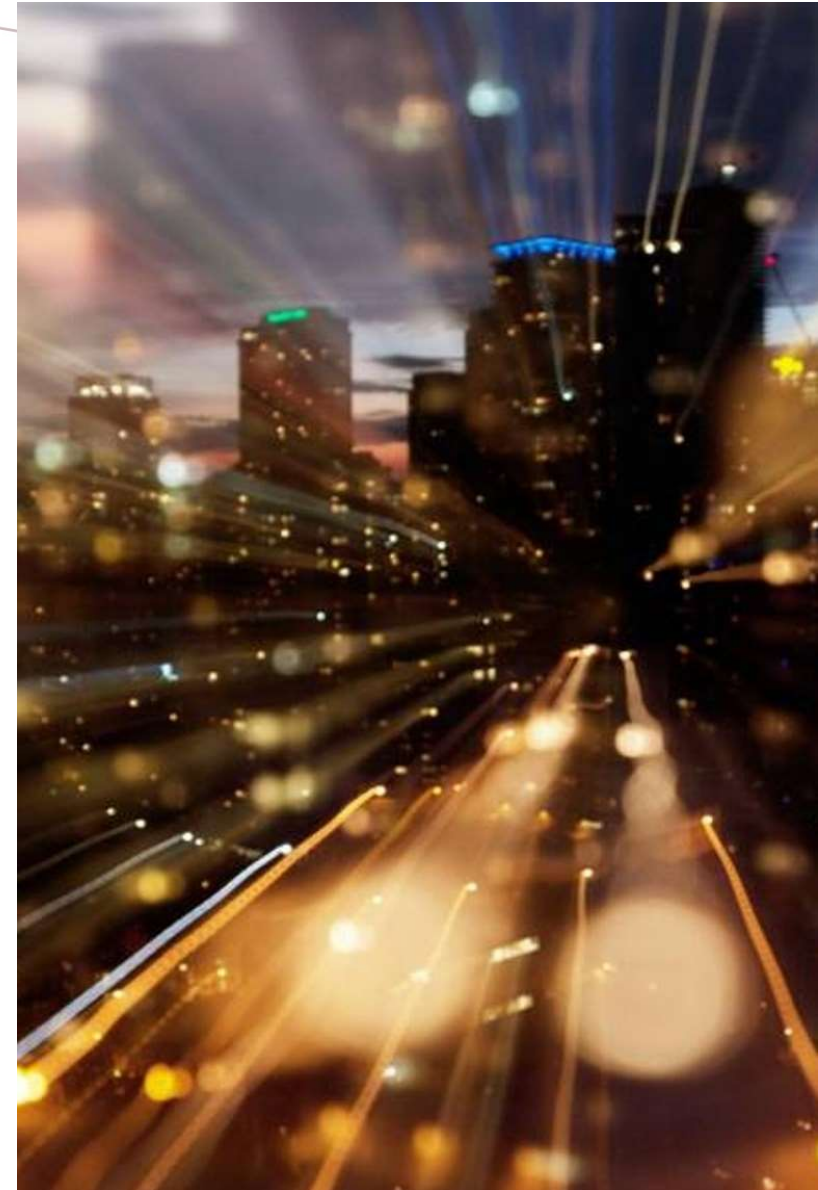
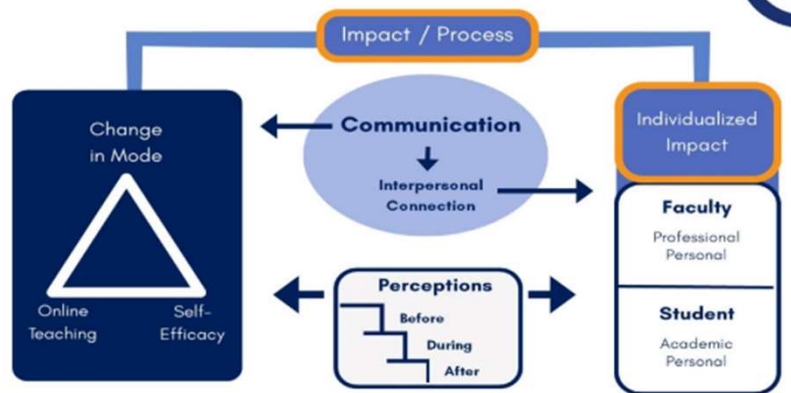
<i>Concept</i>	<i>Property</i>	<i>Dimension</i>	<i>NVIVO Exemplar</i>
Perception of Transition (Early)	Sudden		“it was jarring in the sense of going from a face-to-face format which I’m very comfortable with, to a virtual format.”
	Anxiety Producing		“...rocked my world.” “It was very anxiety inducing.”
	Scrambling Supportive of Administration	Preparation Time	
	Not Supportive of Administration	Communication of Decisions	
(During/Middle)	Very Difficult		
	Reduced Job Satisfaction		“I was so tired of hearing the word “pivot”.”



The Impact and Process of Transition from
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Figure 1 *Theoretical Model*

**The Impact and Process of Transition
from Face-to-Face to Online Teaching
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DATA POINT 1

Participant 1

I find being a professor is very challenging these days. I don't love on-line classes. It used to be that you could stand in front of a class, and deliver a lecture, and people would listen and engage. But it seems to me, that more and more, students just want to get the most important information for testing purposes, and that's all. I want them to grow as individuals and eventual professionals. Of course, its possible that we as professors are not keeping up with how younger and younger students see the world. They experience the world through social media, videos, immediate news about world happenings and other "fast response, immediate gratification" methods. Those of us who are used to lectures and classroom engagement are finding it more difficult to relate to the students' changing environment and "keep up" with the demand for one-stop shopping. It makes me nostalgic for earlier times in my career. I'm sure the students see me as outdated sometimes. I mean, I'm not a technophobe – at least I tell myself that.



SUMMARY RENDERING

Requested summary

A professor expresses difficulty adapting to modern teaching challenges, particularly their dislike for online classes. They feel nostalgic for a time when students were more engaged in lectures and sought personal growth, rather than just information to pass tests. They attribute this shift to a generational gap, recognizing that students now experience the world through fast-paced, immediate-gratification mediums like social media. While the professor isn't opposed to technology, they feel outdated and struggle to connect with students who prefer a "one-stop shopping" approach to education, leaving them concerned about their students' overall development.



DATA POINT 2

Participant 2

I love being a professor in today's college environment. The new technologies we have at our disposal allow me to use my time more wisely. I have always enjoyed engaging with students, and the increased technology just allows me to do it more efficiently. Whether in the classroom or on-line, I enjoy having multiple ways to engage with students. I do miss being in a classroom as often as I used to be, but I'm adapting well. Students understand the technology well, so there's little learning curve for them. So, for the students, I think it is like it always has been – some are interested and want to learn, others are just trying to “earn a degree” because their parents told them they needed to go to college and get a degree.



SUMMARY RENDERING

Requested summary

A professor expresses overall satisfaction with the modern college environment, highlighting that new technologies allow for more efficient use of time and enhanced student engagement, both in-person and online. While they miss being in a physical classroom as frequently, they are adapting well. They note that students are technologically adept, but their fundamental motivations remain unchanged: some are eager to learn, while others are simply fulfilling a requirement to earn a degree.



SUMMARY RENDERING

Participant 3

I don't know why people worry about teaching modality so much. Whether on-line or face to face in a classroom, it is my view that it makes very little difference. Successful students tend to be successful and students who don't take responsibility for their own learning, won't do well. The students, or more likely, their parents, are paying a lot of money for students to come to college and get a degree. I feel like I provide very solid educational opportunities for my students. But it is up to them to get it. I don't worry myself so much about outcomes, because there are three parts to the outcomes: my effort, the students' effort and the tools we use to convey important information. It's simply a formula for obtaining success in most students. No matter how good my efforts are, some students won't do well because they simply don't care. Other students will do well despite an "off semester" from me, because they are motivated to work hard. In the end, I really don't care how I am asked to teach, it's all about the same to me.



SUMMARY RENDERING

Summary

This professor argues that the method of teaching (online or in-person) is largely irrelevant to student success. They believe outcomes are determined primarily by the student's own motivation and willingness to take responsibility for their learning. The professor sees their role as providing solid educational opportunities but views the final result as a three-part formula: their effort, the student's effort, and the tools used. They conclude that highly motivated students will succeed regardless of the modality or teaching quality, while unmotivated students will fail, making the delivery method inconsequential to them.



THEMATIC RENDERING

Create Themes as a Qualitative Researcher Would (P-1 only):

The Erosion of Traditional Pedagogical Authority and Engagement

Generational Shift and Cultural Misalignment

Instrumental vs. Holistic Learning

Identity Threat and Nostalgia

The Pressure to Adapt and the "One-Stop Shopping" Demand



THEMATIC RENDERING

View of Qualitative Researcher

Here are the most important themes running through this narrative:

The Erosion of Traditional Pedagogical Authority and Engagement

- This is a central theme concerning a perceived loss of a specific teaching dynamic. The professor defines a "golden age" of teaching characterized by:
- **Physical Presence and Performance:** The ability to "stand in front of a class" and "deliver a lecture" is valued as an effective mode of knowledge transmission.
- **Assumed Engagement:** There is an expectation that students would naturally "listen and engage" in this format.
- **The lecture hall is portrayed as a space of shared focus,** which the professor feels has been fragmented by new technologies and student expectations.



THEMATIC RENDERING

Generational Shift and Cultural Misalignment

- The professor explicitly identifies a divide between their generation and that of their students, framing it as a clash of cultures and worldviews.
- **Different Epistemologies (Ways of Knowing):** Students are described as experiencing the world through "social media, videos, immediate news," which shapes how they seek and process information. This is contrasted with the professor's more traditional, lecture-based epistemology.
- **Pacing and Gratification:** The students' world is characterized by "fast response, immediate gratification," which is at odds with the slower, more reflective pace of traditional lecture and discussion.
- **This theme highlights a feeling of being out of touch,** not just technologically, but culturally and cognitively.



THEMATIC RENDERING

Instrumental vs. Holistic Learning

- A core conflict the professor identifies is a fundamental disagreement on the *purpose* of education.
- **Student Instrumentalism:** The professor perceives students as viewing education transactionally—as a means to an end ("get the most important information for testing purposes").
- **Professor's Holism:** The professor values education for personal and professional formation ("grow as individuals and eventual professionals"). This is about depth, critical thinking, and long-term development, which they feel is being lost.
- This theme frames the struggle as a values conflict over the very mission of higher education.



THINGS MISSED?

What other subtle cues, meanings, feelings and emotions may have been missed?



THINGS MISSED?

1. Nuance: A Sense of Grief, Not Just Nostalgia

While you identified "nostalgia," the tone suggests something deeper: **professional grief**. Nostalgia is a wistful longing; grief is a response to a profound loss.

- The professor isn't just remembering the past fondly; they are mourning the loss of a teaching environment where they felt effective, respected, and connected. The line "*It makes me nostalgic for earlier times*" carries a weight of sadness for a world that is gone, implying a personal sense of irrelevance.

2. Nuance: Internal Conflict and Self-Doubt

The narrative isn't a simple complaint; it's a window into the professor's **internal struggle**.

- The defensive statement, "*I'm not a technophobe – at least I tell myself that,*" is a critical moment of self-questioning. It reveals:

- Awareness of the Stereotype:** They know how they might be perceived.
- Fear of Being the Stereotype:** They are actively fighting against that label.
- Doubt:** The phrase "at least I tell myself that" introduces a sliver of uncertainty. They may be wondering if their resistance is, in fact, a form of technophobia, which creates intellectual and emotional tension.



POTENTIAL THREATS TO CREDIBILITY

Lack of Transparency and Interpretability

- Black-box nature
- Challenge for peer review

Misinterpretation of Context

- Nuance and ambiguity
- Loss of depth

Bias in AI Models

- Training data bias
- Ethical concerns

Over-reliance on Automation

- Reduced researcher engagement
- False sense of objectivity



THEMATIC RENDERING

Validity and Reliability Issues

- Inconsistent output
- Questionable rigor

Ethical and Privacy Concerns

- Data handling
- Informed consent

Limited Reflexivity

- No critical self-awareness



THINGS TO KEEP IN MIND

Some “take home” messages:

Don’t decide what to do with your data AFTER you collected it.

AI may be a significant help, especially where data is voluminous – but it must be used cautiously.

Understand the potential benefits and problems with using it.

Be careful about feeding all data at once! Will significantly flatten response.

Human experience and nuanced meaning will not be sufficiently captured by AI.



QUESTIONS? COMMENTS?
SNIDE REMARKS?



THANK YOU FOR COMING!

Feel free to reach out with questions!

Steven Busby PhD, FNP-BC

Inman College of Nursing

steven.busby@belmont.edu