The Research Problem

Qualitative studies begin with authors stating the research problem of the study. In the first few paragraphs of a design for a study, the qualitative researcher introduces the "problem" leading to the study. The term "problem" may be a misnomer, and individuals unfamiliar with writing research may struggle with this writing passage. Rather than calling this passage the "problem," it might be clearer if I call it the "need for the study." The intent of a research problem in qualitative research is to provide a rationale or need for studying a particular issue or "problem." Why is this study needed? In the following paragraphs, I consider establishing the need by considering the "source" for the problem, framing it within the literature, and encoding and foreshadowing the text for one of the five qualitative approaches to inquiry.

Research methods books (e.g., Creswell, 2005; Marshall & Rossman, 2006) advance several sources for research problems. Research problems are found in personal experience with an issue, a job-related problem, an adviser's research agenda, or the scholarly literature. It is important in qualitative research to provide a rationale or reason for studying the problem. The strongest and most scholarly rationale for a study, I believe, comes from the scholarly literature: a need exists to add to or fill a gap in the literature or to provide a voice for individuals not heard in the literature. As suggested by Barritt (1986), the rationale

> is not the discovery of new elements, as in natural scientific study, but rather the heightening of awareness for experience which has been forgotten and overlooked. By heightening awareness and creating dialogue, it is hoped research can lead to better understanding of the way things appear to someone else and through that insight lead to improvements in practice. (p. 20)

Besides dialogue and understanding, a qualitative study may fill a void in existing literature, establish a new line of thinking, or assess an issue with an understudied group or population.

Although opinions differ about the extent of literature review needed before a study begins, qualitative texts (e.g., Creswell, 2003; Marshall & Rossman, 2006) refer to the need to review the literature so that one can provide the rationale for the problem and position one's study within the ongoing literature about the topic. I have found it helpful to visually depict

where my study can be positioned into the larger literature. For example, one might develop a figure—a research map (Creswell, 1994)—of existing literature and show in this figure the topics addressed in the literature and how one's proposed research fits into or extends the literature.

In addition to determining the source of the research problem and framing it within the literature, qualitative researchers need to introduce the problem in a way that the discussion foreshadows one of the five approaches to inquiry. This can be done, I believe, by mentioning how the particular choice of approach fills a need or gap in the literature about the research problem. In a problem statement for a narrative study, for example, I would expect the writer to mention how individual stories need to be told to gain personal experiences about the research problem. In a phenomenological study, I would like to hear from the author that we need to know more about a particular phenomenon and the common experiences of individuals with the phenomenon. For a grounded theory study, I would expect to learn how we need a theory that explains a process because existing theories are inadequate, nonexistent for the population, or need to be modified. In an ethnographic study, the problem statement might include thoughts about why it is important to describe and to interpret the cultural behavior of a certain group of people or how a group is marginalized and kept silent by others. For a case study, the researcher might discuss how the study of a case or cases can help inform the research problem. Thus, the need for the study, or the problem leading to it, can be related to the specific focus of one of the five approaches to research.

The Purpose Statement

This interrelationship between design and approach continues with the purpose statement, a statement that provides the major objective or intent, or "road map," to the study. As the most important statement in an entire qualitative study, the purpose statement needs to be carefully constructed and written in clear and concise language. Unfortunately, all too many writers leave this statement implicit, causing readers extra work in interpreting and following a study. This need not be the case, so I created a "script" of this statement (Creswell, 1994, 2003), a statement containing several sentences and blanks that an individual fills in:

> The purpose of this _____ (narrative, phenomenological, grounded theory, ethnographic, case) study is (was? will be?) to _____ (understand? describe? develop? discover?) the _____ (central phenomenon of the study) for _____ (the participants) at

_____ (the site). At this stage in the research, the _____ (central phenomenon) will be generally defined as _____ (a general definition of the central concept).

As I show in the script, several terms can be used to encode a passage for a specific approach to qualitative research. In the purpose statement,

- The writer identifies the specific qualitative approach used in the study by mentioning the type. The name of the approach comes first in the passage, thus foreshadowing the inquiry approach for data collection, analysis, and report writing.
- The writer encodes the passage with words that indicate the action of the researcher and the focus of the approach to research. For example, I associate certain words with qualitative research, such as "understand experiences" (useful in narrative studies), "describe" (useful in case studies, ethnographies, and phenomenologies), "meaning ascribed" (associated with phenomenologies), "develop or generate" (useful in grounded theory), and "discover" (useful in all approaches).
- I identify several words that a researcher would include in a purpose statement to encode the purpose statement for the approach chosen (see Table 6.1). These words indicate not only researchers' actions but also the foci and outcomes of the studies.
- The writer identifies the central phenomenon. The central phenomenon is the one, central concept being explored or examined in the research study. I generally recommend that qualitative researchers focus on only one concept (e.g., the campus reaction to the gunman, or the values of the sXers) at the beginning of a study. Comparing groups or looking for linkages can be included in the study as one gains experiences in the field and engages in initial exploration of the central phenomenon.
- The writer foreshadows the participants and the site for the study, whether the participants are one individual (i.e., narrative or case study), several individuals (i.e., grounded theory or phenomenology), a group (i.e., ethnography), or a site (i.e., program, event, activity, or place in a case study).
- I include a general definition for the central phenomenon. This definition may be difficult to determine with any specificity in advance. But, for example, in a narrative study, a writer might define the types of stories to be collected (e.g., life stages, childhood memories, the transition from adolescence to adulthood, attendance at an Alcoholics Anonymous meeting). In a phenomenology, the central phenomenon to be explored might be specified such as the meaning of grief, anger, or even chess playing (Aanstoos, 1985). In grounded theory, the central phenomenon might be identified as a concept central to the process being examined. In an ethnography, the writer might identify the key cultural concepts being examined such as roles, behaviors, acculturation, communication, myths, stories, or other concepts that the researcher plans to take into the

Table 6.1 Words to Use in Encoding the Purpose Statement

Narrative	*Phenomenology*	*Grounded Theory*	*Ethnography*	*Case Study*
• Narrative study • Stories • Epiphanies • Lived experiences • Chronology	• Phenomenology • Describe • Experiences • Meaning • Essence	• Grounded theory • Generate • Develop • Propositions • Process • Substantive theory	• Ethnography • Culture-sharing group • Cultural behavior and language • Cultural portrait • Cultural themes	• Case study • Bounded • Single or collective case • Event, process, program, individual

field at the beginning of the study. Finally, in a case study such as an "intrinsic" case study (Stake, 1995), the writer might define the boundaries of the case, specifying how the case is bounded in time and place. If an "instrumental" case study is desired, then the researcher might specify and define generally the issue being examined in the case. Creswell, (2007). pp. 102-106.

Introduction

The importance of having a good education generally starts with having a high school diploma or a General Education Development certification, (GED). The GED is the springboard towards job opportunities and being admitted to higher educational institutions. Education is important to enter today's job market, which demands having an attractive resume. Employers, administrators, and high-level officials evaluate people based on these resumes. Therefore, identifying that you have received a high school diploma or a GED on your resume is essential to advancing in today's labor market.

Unfortunately, many people don't have and high school diploma or GED. In the same way, many foreign citizens have a high school diploma in their place of origin, but they must prove their conception of educational knowledge by passing the GED test here in America.

Studying for the GED can be tedious and difficult, especially if the person has been away from using their cognitive abilities towards formal education, likewise, there are language barriers that can cause difficulties in acquiring a GED. Finally, learning styles can also be a challenging factor in obtaining a GED.

Statement of the Problem

There are multiple causes why people can or cannot pass the GED test. Every healthy-minded adult student should be able to pass the GED test with the appropriate instruction and guidance. However, if the student misunderstands the testing material, or if the instructor misunderstands the student's cognitive abilities – testing complications can arise.

Purpose of Study

This study presents a way to help students with different learning styles achieve success in acquiring their GED. Medical evidence is presented and intended to help forge an understanding of how technology can be applied to help students learn to pass the GED test.

Theoretical Framework

The medical evidence establishes a relationship between one's brain via their kinesthetic, visual, and auditory learning styles, which is associated with the brain's premotor cortex the visual association cortex, and the auditory association cortex, Sargent, (2024).

"Medical data proves that the brain's Visual association cortex, "integrates visual data with memory, emotions, and other senses", Parker, (2019, pg. 110). The memory systems of the brain encompass circuitry, connectivity, and computational functions allowing for scene perception and attention. This area of the brain is called the hippocampus; it characterizes objects in a manner that presents itself in the moment, capacity, or elsewhere - a method of statistical knowledge that allows for visual recognition. This explains the role that the hippocampus has in human visual processing. The brain activity associated with the hippocampus develops mechanisms for memory association 'spatiotemporal similarities', a main contribution to visual learning styles", Sargent, (2024).

"The brain's Auditory association cortex, "integrates auditory data with memory, emotions, and other senses, Parker, (2019, pg. 110). Analyzation of human speech and real-time heeding is a prerequisite for neurons in the auditory cortex to assimilate natural sound with other audiovisuals

content. The auditory cortex is understood to be responsible for human judgment and advancing cognition. Students being able to focus their attention and achieve motor skill planning is the consequence of auditory perception. This embellishes the human's "Spectrotemporal Analysis Receptive Field', (STRF), which interprets and anticipates the reaction to one's auditory neurons; a salient argumentation to one's auditory learning style", Sargent, (2024).

"The brain's Premotor cortex, "creates the intention to produce movement; and provides guidance and coordination of actions, Parker, (2019, pg.110). This kinesthetic awareness helps with one's muscle movements, which in turn, allows basic imagery which is associated with cognitive channels that affect a person's perceptional-motor skills", Sargent, (2024).

"The brain's motor cortex is molded to furnish skilled learning. This cortex is associated with human procedural skills knowledge. The brain's underlying circuitry is constantly being studied to determine which brain cells are affected during procedural learning. There are research gaps about the nature of the brain's circuitry, notwithstanding, more research is needed because the brain's full underlying circuitry is unsubstantiated", Sargent, (2024).

Research Question

Can the pedagogical concept of using GED graduates on an educational podcasting format; institute real-life examples to aid visual, auditory, and kinesthetic learners in passing the GED test?

Significance of the Study

The more people in a society that are educated the better the society strives. Job markets and the educational systems tend to invigorate livelihoods when education is at the forefront of societal norms.

Research Design

This empirical research incorporates a quantitative methodology using the statistical data for students from the New York, New Jersey Metropolitan area compared to the National data for GED testing for the years 2013 & 2019. See Table 1

Table 1

GED test takers data for New Jersey, New York, and Nationally in 2013 and 2019						
Total number of GED test taker in NJ - 2013		Test takers completing the GED test -2013		Completion Rate	Passed TEST	Passing Rate
NJ - 16,877		NJ - 15,876		94.6%	NJ -10,811	68.1%
NY - 56,635		NY - 52,934		93.5%	NY - 31,282	51.9%
Nationally - 816,213		Nationally - 713,960		87.5%	Nationally - 540,535	75.7%
Total number of HiSET test takers in NJ - 2019		Test takers completing the HiSET test -2019				
NJ - 2,239		NJ - 1,276		57.0%	NJ - 995	78.00
Nationally - 85,630		Nationally - 50,879		59.8%	Nationally - 40,375	79.4%
Total number of TASC test takers in NY - 2019		Test takers completing the TASC test -2019				
NY - 33,301		NY - 20,805		62.5%	NY - 10,460	50.1%
Nationally - 52,476		Nationally - 36,135		68.8%	Nationally - 22,265	61.6%
Statistical Data Derived from the National Center for Educational Statistics (NCES)						

Definition of Terms

Spectrotemporal is a “reflective field of a neuron representing the types of stimuli or inhibits that neuron”. Wikipedia

HiSET is the acronym for High School Equivalency Test

GED is the acronym for General Education Development

TASC is the acronym for Test Assessing Secondary Completion

Limitations

More research is needed to understand how the brain interprets stimuli. Notwithstanding, the effect of podcasts on visual, auditory, and kinesthetic learning needs to be studied extensively.

Delimitations

Because of my years of experience in teaching adult GED learners. I feel the need to extend all possible avenues to get the most out of this learning opportunity. Once my podcast is developed, there are no boundaries to what can be achieved through this empirical research. I've taught a lot of successful people who have passed the GED test, and they would be delighted to be a guest on my podcast.

Assumption

This empirical research is a great opportunity to change the lives of young adults who seemingly lost their way for one reason or another. These students will change the lives of others as they push forward to completing their GED education. One person, one chance, one moment, and one life can be affected given the assumption that knowledge is transferable through digital media.

Reference

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