Problem Statement Development: How to Write a Problem Statement in A Dissertation

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ABSTRACT

Most researchers and doctoral students have considerable trouble writing a problem statement with their research projects dissertations, and theses. We have to ask ourselves, why that is? Why are we encountering doctoral students and researchers that have trouble writing the problem statement? Why the disconnect? This is a common occurrence with doctoral students. We would think the required research methods course would address this. However, that is not case. Thus, this article addresses, discusses and illustrates how to develop a problem statement. This article will provide a model and template for developing a problem statement. As basis for a research study, it is important the researcher and doctoral student know how to construct a problem statement. First, this article discusses the problem statement. Second, this article provides a model as a for developing a problem statement. Last, the article provides examples of problem statements using the conceptual template.

Source: Miles, D.A. (2017) *Workshop: Confessions of a Dissertation Chair Part 1: The Six Mistakes Doctoral Students Make With the Dissertation.* Presented at the 5th Annual 2017 Black Doctoral Network Conference in Atlanta, GA on October 26-29 2017.

Introduction

Many researchers and doctoral students in particular are not properly taught to write a clear problem statement. Let's face it, some of the universities do a poor job of teaching students how to write a problem statement. Many are confused and do not know how to frame a research problem and a rationale for the investigation.

So, this is the reason many doctoral students and researchers have considerable trouble with writing the problem statement of the study. The reasons stem from a poor research agenda thus leading to a poor problem statement. The research problem is among the most difficult task of the research proposal or dissertation. The reasons behind this is it provides focus and direction for the study.

This article illustrates how to develop and write a problem statement with key words and syntax. This article is based on a workshop we conducted in Atlanta, GA for doctoral students at a conference. We had a surprising large turnout for our workshop. The article has four parts. First, we discuss the meaning and definition of the problem statement. Next, we discuss asking the two questions concerning the problem statement. Next, we introduce *The Statement Grid*, a tool used for problem statement development. Last, we give some examples problem statements and illustrate how to develop and write a problem statement.

Problem Statement: Definition and Meaning

A well-written problem statement defines the problem and helps identify the variables investigated in the study. The problem statement provides the: (a) rationale for the study; and (b) uses data and research to confirm the need to address the problem in the study (Miles, 2016a).

Hernon and Schwartz (2007) define a problem statement with many key definitions. The problem statement is defined in the following points: (1) *clarity and precision* (a well-written statement does not make sweeping generalizations and irresponsible statements); (2) *identification of what would be studied*, while avoiding the use of value-laden words and terms; (3) *identification of an overarching question and key factors or variables*; (4) *identification of key concepts and terms*; *articulation of the study's boundaries or parameters*; *some generalizability*; *conveyance of the study's importance*, benefits, and justification (regardless of the type of research, it is important to address the "so what" question and to demonstrate that the research is not trivial); (5) *no use of unnecessary jargon*; and (6) *conveyance of more than the mere gathering of descriptive data providing a snapshot*. This pretty much lays down the foundation of what a problem is.

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Trouble with the Problem Statement: Ask the Two Questions

Many times, when I work with doctoral students trying to pick a topic and researching the problem, many times they fail to ask, "The Two Questions." Here are those questions: (a) *Why does this topic warrant an investigation*, and (b) *What drives the investigation?* Below are some of the reasons for a poorly written problem statement with doctoral students and researchers:

- ***No Compelling Reason.*** Lack of compelling reason for the research. Many students lack a compelling reason for the investigation of the problem (research).

- ***Lack of Persuasion.*** Not persuasive enough for identifying problem as a basis for the study. They can't sell the problem as a basis for the study.

- ***Clarity***. Lack of clarity about the problem. Because of the lack of clarity this pervades the dissertation. Thus, failure to identify gaps in the prior research as a basis for the investigation.

- ***Topic Choice.*** Poor topic choice for researching a problem is a problem. For example, you do not want to pick a topic such as problem on "Basket Weaving" if there is no basis for the problem and investigation.

- ***Problem Nexus.*** There is a nexus issue with the problem under investigation and the research. Many doctoral students do not make the connection between the problem and the basis for the study. Thus a poor problem statement is written.

- ***Failure to Develop a Clear Problem Statement.*** This is the blame for us in the academic community. There is always a clear purpose statement but there is never a clear problem statement.

You must consider these points when you are developing a problem for an investigation or as a basis for the research. When you have identified the problem for the basis for the study then the task is easier to address.

When developing your problem statement, you need to consider two points:

- ***Uniformity.*** You should always write each of your subproblem statements the same way for the dissertation.

- ***Completeness.*** Your problem statement should list all the variables are under focus for the study. This is important to the structure and minimize the confusion.

Writing up the Problem Statement

When developing the problem statement, there is a tool that I use with working with doctoral students. The tool is called ***The Statement Grid.*** The ***Statement Grid*** is a helpful tool that aids students and show their problem and problem statement visually. It helps them through the problem and develop the problem statement with supporting statements. I use this to help doctoral students when they have trouble coming up with their problem statement. This helps them in their thought process. It describes three possible subproblems as a basis for the research. It helps with the ***Rule of 3's*** (support your argument and position with three points). See Table 1.

Table 1. **Introducing: The Statement Grid – for Problem Statement Development**

Overall Problem Statement:		
Sub-Problem 1:	**Sub-Problem 2:**	**Sub-Problem 3:**

Directions

First: Write the overall problem statement template. **Second,** divide the problem to be investigated into two or three parts (or sub-problems) that are compelling (see Table 2). Please note, use the word, *issue* with writing the subproblem. This is so it does not cause misinterpretation as four separate problem statements (see Table 3).

Table 2. **Example: The Statement Grid – for Problem Statement Development**

Overall Problem Statement: Write and describe the overall problem as identified by the researcher. Then write, *The central problem to be researched by the proposed study is XXXX.* Last write, *As a basis for this study, the researcher identified the problem to be* (number of issues). Or write, *The researcher identified three major problems as a basis for this study*.		
Sub-Problem 1: First, xxxxxxx. Xxxxxxx. xxxxxxxx. Xxxxxxxxx. Xxxxxxxxxx. Xxxxxxx. Xxxxxxxx. Xxxxxxx. Xxxxxxx. Xxxxx. Xxxxxx.	**Sub-Problem 2:** Second, xxxxxxx. Xxxxx. xxxxxx. Xxxxx. Xxxxxxx. Xxxxxxx. Xxxxx. Xxxxxx. Xxxxxxx. Xxxxx. Xxxxxx. Xxxxxxx. Xxxxx. Xxxxxx.	**Sub-Problem 3:** Last, xxxxxxx. Xxxxx. xxxxxx. Xxxxx. Xxxxxxx. Xxxxxxx. Xxxxx. Xxxxxx. Xxxxxxx. Xxxxx. Xxxxxx. Xxxxxxx. Xxxxx. Xxxxxx.

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***Table 3*. Example: The Statement Grid – for Problem Statement Development**

Overall Problem Statement: The central problem to be researched by the proposed study is the shortage in the nursing field. This has a lot to do with the current nursing shortage and the need for more nurses in the field. There is a huge problem with this shortage and the availability of nurses. As a basis for this study, the researcher identified the problem to be threefold.		
Sub-Problem 1: First, the issue is the education of new nurses is the responsibility accepted by institutions of higher education, but there is a national shortage of nursing faculty (McSherry, Pearce, Grimwood, & McSherry, 2012, Rosseter, 2015) is limiting the enrollment, education, and graduation of new nurses from institutions of higher learning.	**Sub-Problem 2:** Second, the issue in the United States (US), is that 75% of nursing faculty will attain retirement age in 2017 (Brett, Branstetter, & Wagner, 2014) alongside the existing problem in which 6.9% of nursing faculty positions remain unfilled due to a lack of qualified nursing educators (Rosseter, 2015).	**Sub-Problem 3:** Last, the issue is the current nursing faculty express low job satisfaction (Bittner & O'Connor, 2012) due to complexities of the nursing educator role making retention and recruitment of qualified faulty difficult (Byme, & Martine, 2014). The current problems include a shortage of qualified nursing faculty to educate new nurses, the complexity of nursing education, current faculty complaints of poor job satisfaction, and a majority of current nursing faculty members (Cook, 2017).

See example in paragraph form below:

The central problem to be researched by the proposed study is the shortage in the nursing field. This has a lot to do with the current nursing shortage and the need for more nurses in the field. There is a huge problem with this shortage and the availability of nurses. As a basis for this study, the researcher identified the problem to be threefold. **[FIRST]** First, the issue is the education of new nurses is the responsibility accepted by institutions of higher education, but a national shortage of nursing faculty (McSherry, Pearce, Grimwood, & McSherry, 2012, Rosseter, 2015) is limiting the enrollment, education, and graduation of new nurses from institutions of higher learning.

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[SECOND] The second issue is, in the United States (US), is that 75% of nursing faculty will attain retirement age in 2017 (Brett, Branstetter, & Wagner, 2014) alongside the existing problem in which 6.9% of nursing faculty positions remain unfilled because of a lack of qualified nursing educators (Rosseter, 2015). **[THIRD]** Last, the issue is the current nursing faculty express low job satisfaction (Bittner & O'Connor, 2012) because of complexities of the nursing educator role making retention and recruitment of qualified faulty difficult (Byme, & Martine, 2014). The current problems include a shortage of qualified nursing faculty to educate new nurses, the complexity of nursing education, current faculty complaints of poor job satisfaction, and a majority of current nursing faculty members (Cook, 2017). See the examples of problem statements from real studies.

Advantages of Using the Statement Grid

The key advantage in using the *Statement Grid* for developing the problem statement is it also provides alignment with developing the purpose statement and research questions. We will discuss that more in the article on research alignment for dissertations and research projects (see Examples 1 to 4).

[Example 1]

The central problem to be researched in the proposed study by is the lack of intercultural competence within peer mentoring between international students and domestic students' relationships and lack of personal account of students' experience in a peer-mentoring program. As a basis for the study, the researcher identified the problem to be twofold.

The first prevailing issue identified by the researcher is a lack of research on intercultural competence and peer mentoring skills of domestic students. Universities admit international students to drive globalization but fail to bridge the gap between domestic and international students to help create intercultural competency. Past researchers conducted different studies within formal classroom settings and extracurricular settings (Kohnova, 2007; Maeda, 2017; Washburn & Hargis, 2017). The researcher for the present study will reference Kohnova's research to determine ways to sustain effective intercultural interaction by investigating how attitudes, skills, and knowledge of both domestic and international student peer mentors affect external and internal outcomes (Deardorff, 2011).

Last, the next prevailing issue identified by the researcher is the lack of personal accounts from students about their experiences with a peer mentoring program as the second issue. International students will share their experiences to increase understanding of the impact of peer mentoring from a domestic student mentor on their intercultural competence and vice versa. Giving students a voice to share these experiences might contribute greatly to the effectiveness of such a peer mentoring program. Once these personal accounts are known, it might shed light on the experiences of both domestic and international students and how they relate to each other (Akanwa, 2015; Bartlett, et al., 2016; Gartman, 2016) [Kwapong, 2019].

[Example 2]

The central problem to be researched in the proposed study is the extent the completion of Teen Leadership, a character education class, impacts the academic achievement of high school students in Texas. As a basis for the study, the researcher identified the overall problem to be threefold.

First, there is an issue concerning a variance in the scores for the Texas Assessment of Knowledge and Skills (TAKS) that was present in schools throughout the state for the overall reporting category. For this study, student discipline and a lack of successful interaction skills were considered influencing factors to that disparity. The prevailing issue identified by the researcher was whether there is a difference between the group that took the character education program and the group that did not. The issue is whether a character education program influences passing rates on the TAKS for the overall part of the assessment.

Second, there is an issue concerning a variance in the scores for the TAKS that was present in schools throughout the state for the Math reporting category. Patterns in the variance could not be attributed to geographical location, size, or demographic makeup of the campus. Personal accountability, attendance, and social intelligences are determined to be factors. The issue identified by the researcher was whether there is a difference between the group that took the character education program and the group that did not. The issue is whether a character education program influences passing rates on the TAKS for the Math part of the assessment.

Last, there is an issue concerning a variance in the scores for the TAKS that was present in schools throughout the state for the ELA category. Again, patterns in the variance could not be attributed to geographical location, size, or demographic makeup of the campus. It is believed that the variances were influenced by factors that include student discipline and time distracted from work, attendance, and accountability toward academic responsibilities. The issue identified by the researcher was whether there is a difference between the group that took the character education program and the group that did not. The issue is whether a character education program influences passing rates on the TAKS for the ELA part of the assessment [Zeig, 2019].

[Example 3]

The central problem to be researched in the proposed study is the achievement gap between minority students and non-minority students has barely narrowed over the last half century. Academic gains have been produced among minorities, but the gains are insignificant resulting in the gap to persist and continue being left behind (Williams, 2013). As a basis for the study, the researcher identified the problem to be threefold.

The first issue identified as a basis for this study is the question of achievement gaps between minorities and non-minorities in public schools located in public schools located southwest Virginia. Generally, the "achievement gap" refers to assessment performances that are compared between minority students and their non-minority peers. The National Education Association posits that achievement gaps complex and interconnected which varies from school to school or district to district. The differences between the achievement scores of minorities and non-minorities are apparent on large-scale standardized assessments.

The second issue identified as the basis for this research study in the comparative achievement gaps between additional subgroups such as students with disabilities and English language learners. Achievement gaps are not specific to just minority and nonminority students. Gaps in achievement may exist between groups of students from different backgrounds on state-administered assessments which include gender, disability, and income.

Last, the third issue identified is the factors that contribute to the achievement gaps. There are factors that are within a school or district's control that directly impact student performance such as class sizes, high-qualified teachers, and school safety. Other factors that are outside the schools' control may include safety in community, after-school programs, socioeconomic status of families.

[Example 4]

The central problem to be researched by the proposed study is the issue of organizational performance, leadership and employee empowerment. As a basis for this study, the researcher identified three key problems demanded this investigation. The first major issue identified as a basis for this study is the issue regarding customer and market focus and operational performance in air transportation organizations. Market orientation strategies in the organization has been shown to have a positive relationship to organizational performance and profitability (Balas, Gokus, & Colakoglu, 2014). Market oriented strategies improve operational effectiveness (Mokhtar, Yusoff, & Ahmad, 2014). Pekovic, Rolland, and Gatignon (2016) stated that customer orientation strategies permit the organization to identify and respond to customers while creating value for them. Chu, Wang and Lado (2016) stated that organizations achieve competitive advantages and better performance when they oriented to customers. In a study about shift work schedule in the nursing sector, Faraz, Shamsi, and Bashir (2014) mentioned evidence reflecting working beyond 50 hours per week is harmful to workers' health. Stefanovska--Petkovska, Bojadziev, and Mucunski (2015) stated that employee satisfaction has been demonstrated to promote organizational performance. They mentioned if job satisfaction of their employees increases, companies create a comparative advantage for themselves. The intention of this investigation is to study customer and market focus issues within air transportation organizations.

The second major issue as a basis for this study is the concerns with employee empowerment and organization performance in air transportation organizations. Malik, Chugtai, Iqbal, and Ramzan (2013) in their study of the telecommunication sector in Pakistan, related to employee empowerment mentioned future researches might target other cities to conduct research about employee empowerment. Verhulst and Boks (2014), in their study related to employee empowerment in various Benelux firms mentioned that a larger study could look at firms within different countries and with companies who integrate sustainability in the entire company. In their banks study about employee empowerment in Pakistan, Abbasi, Khan, and Rashid (2011) published the findings may stimulate further research in other parts of the world, especially in other developing countries.

The last major issue identified as a foundation for this study is concerning leaders' openness to new business strategies and organizational performance in air transportation organizations. Organizational performance statistically measures how the organization is addressing their leaders-employees work relation, and employee empowerment towards the goals of the company. The problem identified in this study, based on prior research, is corporations and organizations in related industries have a limited knowledge on variables that strives on excellent organizational performance. Miller (2014) stated that organizations need to strive for operational excellence, not for perfection, using a comprehensive approach focusing on people and effecting change by engaging customers, always innovating, continuously improving operations, and moving at optimal speed [Morales, 2019].

Conclusions and Summary

This article discussed the issue with problem statement development for novice and burgeoning researchers. This article proposed a conceptual model based on the research methods. The article provided a conceptual models and tools for helping doctoral students and researchers with developing the problem statement. This article contributes to the research method literature by demonstrating the importance of problem statement developing and the important factors that are vital. This article makes a key contribution by providing conceptual contribution. The article provides a conceptual model and some theory with problem statement development. The foundation of research is based on providing a template for problem statement development.

The development of the problem statement is an integral part of the research endeavor. Possibly future studies in research methods and strategies could provide further development on problem statement development in research. Also, future work in research methods could focus on other aspects of research development such as purpose, research questions and other items of interests. We hope that our proposed framework will provide researchers with a template and a foundation for developing a solid and clear problem statement in research projects and dissertations.

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