

NACADA Module Transcript

An Overview of Social Science Research

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Introduction

Welcome to the NACADA Research Module on Social Sciences. In this module, we will cover the foundational knowledge necessary to understand research undertaken from a social science perspective including: aims of research, epistemology, research methods, validity, and ethics. We will also include examples of academic advising research from a social science perspective to provide context throughout the module. At the end is a list of references that were used in the preparation and are useful for further study.

Aims of Research

Why do we engage in research? Typically, to answer questions or problems in a systematic way. For scholar-practitioners, this research is connected to their professional practice. As academic advisors engaging in research, we often seek to learn more about advising approaches, specific student populations, and advisor or advisee perspectives, to name a few common areas. Research is needed to advance the field of academic advising. NACADA's Research Center supports this goal. NACADA's research agenda is focused in three main areas: the impact of academic advising on students and institutions; the context of academic advising; and the

theoretical basis of advising practice. All of these areas contribute to both the professionalization and practice of advising.

Epistemology

Epistemology is the concept of distinguishing between knowledge and opinion/feelings. Essentially, how do we know if something is true? The positivist or empiricist perspective grounds the validity of knowledge in the scientific method of observation, documentation, and testability. The researcher must strive to maintain objectivity and acknowledge their own subjectivity; the underlying assumption is that there is order and it is possible to know truth. The hermeneutic or interpretive perspective poses that there is more than an objective knowable truth. Rather, that human action has meaning and thus to understand the social world we must be able to understand the context and meaning behind behaviors. There are multiple epistemological approaches to research that should be considered in preparing a study. Please see Scott and Usher's (1996) *Understanding Educational Research*, linked in our references for additional discussion on epistemology in educational research.

Scientific, empirical research is grounded in gathering of data and the building, and then testing, of theories to explain that data. Social science is the scientific study of human behavior, it essentially, applies scientific research concepts to humanity. Social science disciplines include but are not limited to Anthropology, Economics, Education, Psychology, Sociology, Social Work, and Political Science. Each of these disciplines is concerned with human behavior from a particular perspective, and can focus on individuals or groups and social context. In social science research we gather

information or data about human behavior and then build and test theories that explain that behavior.

Methods

Social sciences research includes the use of both qualitative and quantitative research methods. Berg (2001) states that qualitative research “refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things. In contrast, quantitative research refers to counts and measures of things.” Utilization of one or both types of research methods depends on various factors including the researcher’s beliefs, the nature of knowledge and how it can be acquired, the purpose(s) and goal(s) of the research, and the research participants (Ormston, Spencer, Barnard, & Snape, 2014).

Qualitative research often focuses on processes and answering questions focusing on “what,” “why” and “how.” To generate this kind of data, common qualitative methods include interviewing, focus groups, ethnography, sociometry, unobtrusive measures, historiography, and case studies (Berg, 2001). One example of qualitative research conducted on academic advising would be my dissertation for which I interviewed 22 high-achieving undergraduate students from underserved student populations to better understand their motivational factors (Shiroma, 2014). The Culturally Engaging Campus Environments (CECE) Model (Museus, 2014) was the theoretical framework of this study. All four culturally responsive environment factors of the CECE Model emerged as motivational influences: having a collectivistic orientation, a humanized educational environment, a proactive philosophy due to the tracking done

by academic advisors, and receiving holistic support by faculty. This example demonstrates the rich data that can result from using qualitative research methods.

Quantitative research methods are just as important in social sciences. With these methods, data can be collected from representative samples of larger populations for certain variables and for specified periods of time (Black, 1999). Similar to qualitative methods, quantitative research also has a variety of data collection methods. Some common ways to gather quantitative data in the social sciences include experiments, surveys and longitudinal methods (Creswell & Creswell, 2018). One such example of quantitative methods employed in research related to academic advising is the dissertation completed by Dr. Niki Libarios, Jr. in 2013. This study examined the impact of students' social and academic backgrounds on baccalaureate degree completion using social stratification theory and focusing primarily on Filipinos as a case study. The sample consisted of the 1997 Hawai'i Department of Education senior class. The subset of this cohort that entered the Hawai'i public higher education system (N = 5206) was monitored over a ten-year period from entry following high school graduation to baccalaureate degree attainment. At the end of this period, 813 students had received undergraduate degrees, including 202 transfer students. The results of the longitudinal quantitative analyses identified several key events along the pathway that highlight differing patterns of retention, persistence, or failure. Entering through the state's community colleges and transferring to a university was found to decrease the chances of persisting to an undergraduate degree, especially for students pursuing particular types of majors, e.g. STEM. Filipino post-secondary students were found to be

significantly more likely to enter post-secondary education through the community colleges.

As discussed earlier, both qualitative and quantitative research methods are needed to depict experiences related to academic advising. It is up to the researcher to determine what specific method is best suited for their particular study. Of course, it must be pointed out that quantitative and qualitative approaches have specific “advantages and challenges” and thus using both together in a mixed methods approach, may ultimately provide a more comprehensive view.

Validity

In both quantitative and qualitative studies, it is necessary to prove that findings are valid. However, validity is a complex term, dealing with “appropriate,” “meaningful” and “useful” inferences, terms that are not easily defined and validity focuses on the interpretation of the data, which is itself dependent upon the context of the study (Pedhazur & Schmelkin 1991). Schuh (2009) points to other issues of validity including complexity, recall issues, result interpretations and suggest that face validity (experts reviewing evidence to assess the usefulness of content) and the relationship between items in the assessment instrument, such as factor analysis or the correlation between similar and different traits.

But the routes that are used to evaluate validity in quantitative and qualitative studies are slightly different. In quantitative studies, validity is based on statistical analysis of data and involves specifying the context under which conditions are seen to be present by examining the content (area being studied, such as advising), criterion (factor being studied, such as graduation rates) and construct (attribute or trait, such as

self efficacy). Different types of analysis may be used, depending upon what theories are being tested. Quantitative studies are often anecdotally referred to as “number crunching” because typically, large pools of data are analyzed based on a quantitative instrument via computer software packages and the statistical significance of various correlation and regression models are examined. Instruments can be developed by the researcher or published, psychometrically tested instruments can be employed. (Schuh, p. 138.)

Reliability is also a key concern for quantitative researchers. Reliability asks the classic question, how reliable are your findings, based on freedom from error. As Pedhazur and Schmelkin point out, “reliability is a necessary but not a sufficient condition for validity” (p. 81). The Libarios study, for example, is a longitudinal study of two sources of data and utilized a logical regression model.

Qualitative studies utilize open-ended questionnaires, focus groups, interviews, field observations, and review of documents (Schuh 2009). Types of studies can include: narrative studies, phenomenological studies, grounded theory studies, ethnographic studies, and case studies (Creswell, 2013). Thus, interpretation and coding of data becomes the key vehicle for analyzing data. All interpretations must be supported by data and the element of interpretation requires that different issues be addressed.

Rather than validity and reliability, researchers are concerned with trustworthiness and goodness of the research. To this end, researchers consciously employ a number of vital techniques, such as:

Gathering data and writing up that data in a way that allows others to understand the context of the study:

- audit trails (maintaining in meticulous detail how data was collected and decisions were made)
- use of rich, thick descriptions (providing specifics about the context of the study will allow others to assess how transferable findings may be)

Focus on perspectives being used:

- triangulation (deliberately using varied ways to collect data, pulling from multiple data sources and employing multiple people in the research),
- positionality (acknowledging the role of the researcher and its impact on the study),

Once initial interpretations have been reached, bringing in “expert” opinions to review and bear on findings:

- member checks (double checking with the study participants),
- peer debriefing (having an external researcher review interpretations),

In the Shiroma study, mentioned earlier, all the techniques listed above were used.

Most specifically, attention was paid to the member checks to ensure that the interviewees’ voices were understood and represented accurately.

Ethics

Ethical considerations are always of paramount importance in all research studies. Kitchner (1985), as summarized in Schuh, laid out ethical considerations that include: respecting autonomy of subjects, doing no harm, benefiting others, being just, being faithful, securing informed consent, following regulations, and securing approval of institutional review boards. Also data access, data ownership, crediting contributors and additional legal situations may arise. Creswell (2013) emphasizes that ethical considerations must be addressed in every stage of a study and his text contains a complete table of ethical considerations in qualitative research and ways of addressing each one. Chilisa (2012) provides additional considerations that have been advanced by indigenous researchers: “accountable responsibility, respect, reciprocity and rights and regulations of the researched” (p. 7). In addition, “Committed researchers define their responsibilities and are consistently engaged in self-reflection and self-questioning that promotes and privileges the right of the disempowered to be heard” as evidenced through language, internationalization of indigenous experiences, history and critique (p. 19). For a historical perspective on the development of trustworthiness and ethics in collaboration and the proliferation of models designed to address these areas, please see Marshall and Rossman (2016). As an example, in my study, one of my ethical considerations was to not have undue influence on my interviewees. Thus, I only interviewed students who were no longer my advisees.

In addition, as “On being a Scholar-Practitioner: Why All Advisors Should Engage in Scholarly Activities (And How We Can Do It)” by Shiroma, Kirk-Kuwaye and Libarios (2018) explain, scholarship is not an activity that a select few should do, but a necessary part of advising. Research is a form of assessment, a feedback loop, that

allows us to constantly improve what we do -- for the students at your institution, for advisors personally, and the academic advising profession as a whole. For example, I used the results from my study to inform how my program should best allocate our time and resources to support our students and focus on individualized advising as opposed to larger group advising.

As data-driven decision making becomes the way in which institutions make decisions regarding funding and programming, research becomes a necessary tool to assist this process. It can also help advisors to improve their practice, by requiring constant reflection upon their work and finally, it promotes and highlights the important work that advisors do and makes it more accessible and understandable to the outside world.

Resources

NACADA offers a number of resources that can assist you in your efforts in pursuing research/scholarship. First and foremost, the NACADA Research Center and Research Committee provide a wealth of resources. In addition, it is possible to sign up for writing groups. At recent NACADA annual conferences, research consultations with NACADA members who have expertise in research were also available. The NACADA Research Symposium provides professional development in this area. The NACADA research grant provides funding for research in the field of advising. A number of scholarship opportunities are available for graduate students. Advisors enrolled in graduate programs can apply for the Annual Conference Scholarship, the NACADA Scholarship, and the Research Advising Seminar Scholarship. There is also a Student

Research Award that supports students who are working on a Master's or Ph.D. program and research in the field of advising for up to a year after completion.

NACADA RESOURCES: RESEARCH

NACADA Research Agenda

<https://www.nacada.ksu.edu/Resources/Research-Related.aspx>

NACADA Center for Research

<https://www.nacada.ksu.edu/Resources/Research-Center.aspx>

References

Chilisa, B. (2012). *Indigenous research methodologies*. Washington, D.C.: Sage.

Creswell, J.W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Washington, D.C., Sage.

Libarios, E. N. D., Jr. (2013). *Social stratification and higher education outcomes: The case of Filipinos in Hawai'i* (Order No. 3577236). Available from Dissertations & Theses @ University of Hawai'i at Mānoa; Dissertations & Theses @ University of Hawai'i;

ProQuest Dissertations & Theses Global. (1468460394). Retrieved from <http://eres.library.manoa.hawaii.edu/login?url=https://search-proquest-com.eres.library.manoa.hawaii.edu/docview/1468460394?accountid=27140>

Marshall, C. & Rossman, G.B. (2016) *Designing qualitative research* (6th ed.). Boston: Sage.

Pedhazur, E.J. & Schmelkin, L.P. (1991) *Measurement design, and analysis: An integrated approach*. London: Lawrence Erlbaum Associates.

Punch, K.F. (2014). *Introduction to social research: Quantitative and qualitative methods* (3rd ed.) Los Angeles: Sage. Retrieved from

https://books.google.com/books?hl=en&lr=&id=G2fOAgAAQBAJ&oi=fnd&pg=PP1&dq=introduction+to+social+science+research&ots=j3qJHi8Mzs&sig=_is1X_7BAKn9RusOLg3SlmUa_KY#v=onepage&q=introduction%20to%20social%20science%20research&f=false

Schuh, J.J. & Associates. (2009). *Assessment methods for Student Affairs*. San Francisco: Jossey Bass.

Scott, D. & Usher, R. (1996). *Understanding educational research*. Routledge, London.

Retrieved from

http://repository.umpwr.ac.id:8080/bitstream/handle/123456789/3730/Understana_ding%20Educational%20Research.pdf?sequence=1&isAllowed=y

Shiroma, K. Y. (2014). *Factors that motivate high-achieving underserved students of color to succeed in college* (Order No. 3582957). Available from Dissertations & Theses @ University of Hawai'i at Mānoa; Dissertations & Theses @ University of Hawai'i; ProQuest Dissertations & Theses Global. (1611926333). Retrieved from <http://eres.library.manoa.hawaii.edu/login?url=https://search-proquest-com.eres.library.manoa.hawaii.edu/docview/1611926333?accountid=27140>

Shiroma, K.Y., Kirk-Kuwaye, M., & Libarios, E.N.D. (2018). On being a scholar-practitioner: Why all advisors should engage in scholarly activities (and how we can do it). *Kuana'ike: Hawai'i Academic Advising Today*, 1 (1). Retrieved from <https://kuanaikehaat.weebly.com/scholar-practitioner.html>