

From the Co-Editors: Modes of Inquiry

Empirical verification, community agreement, authority, and transcendental belief are ways of knowing something. People engage in these modes of inquiry or ways of knowing in different aspects of their lives. On some issues, for example, advisors operate in the hypothetical mode and seek empirical verification; they may ask: Does empathetic caring make a difference to advisees? Are faculty advisors more effective in helping students with exploratory majors than are professional advisors? In other realms, some of these same individuals are content to accept thoughts based on community agreement: They willingly follow traffic laws or accept home association regulations. They may defer to political, social, or scientific authority (textbooks, laws, rules) on some topics, while on some issues they may be committed by transcendental belief and inner feelings (existence of a deity or an afterlife). Sometimes in discussing or arguing issues, individuals may be functioning in different modes of inquiry rather than disagreeing about facts.

Madsen and Moore (1974) described three modes of inquiry that depict how knowledge can be sought and found to be trustworthy. They labeled these modes of inquiry *hypothetical*, *assumptive*, and *phenomenological*. They encouraged their readers to recognize these modes because people sometimes disagree while remaining unaware that their disagreements are based on different modes of inquiry rather than the substance of the issues. Table 1 outlines definitions of the three modes of inquiry.

The modes of inquiry are mutually exclusive, and the following quotes (“Random Quotes,” n.d.) from Galileo Galilei, Thomas Huxley, Ashley Montagu,

and Carl Sagan suggest that the modes are, or should be, mutually exclusive.

Galileo Galilei contrasted the phenomenological and hypothetical modes of inquiry when he suggested: “The Bible tells us how to go to heaven, not how the heavens go.”

In making a point about appropriate use of authority, Thomas H. Huxley contrasted the hypothetical and assumptive modes of inquiry when he said, “The ultimate court of appeal is observation and experiment . . . not authority.”

Ashley Montagu contrasted hypothetical and phenomenological modes of inquiry when he said, “Science has proof without any certainty. Creationists have certainty without any proof.”

Carl Sagan contrasted the hypothetical and assumptive modes of inquiry when he observed, “A central lesson of science is that to understand complex issues (or even simple ones), we must try to free our minds of dogma and to guarantee the freedom to publish, to contradict, and to experiment. Arguments from authority are unacceptable.”

The following six research vignettes illustrate the three modes of inquiry as they might occur in quantitative and qualitative academic-advising research. Hopefully the inappropriateness of both assumptive examples and both phenomenological examples for scholarly writing is transparent.

Hypothetical Quantitative

A faculty researcher and an academic advisor set out to answer the following question: Is prescrip-

Table 1 Modes of inquiry

Mode	Way of Knowing	Definition
Hypothetical	Empirical verification	Based on tentative belief, theory, or hypothesis; observations and experiences are accepted as substantiation.
Assumptive	Community agreement, authority	Authority or rule-based thinking is the basis for substantiation.
Phenomenological	Transcendental belief, religious faith	Based on belief or faith; empirical verification, agreement, or authority is not necessary for acceptance of concepts.

tive advising more effective than developmental advising with honors students? They each select two random samples of 75 students from the honors program and randomly assign each student to one of two advising protocols: In one, prescriptive advising is offered, and in the other, advisors employ developmental advising techniques. All of the honors advisors are trained in both techniques, and each student's file is flagged with information about the advising technique to which he or she is assigned. The students are unaware that they are being studied, and because the protocol practices are consistent with normal operating procedures for advising offices, the Human Subjects Review Board has given permission for the study to be conducted as described. After 2 years of implementation, each student's grade-point average, satisfaction level, and retention status is measured, and the averages of these scores for the two groups are compared via a *t* test for independent samples.

Hypothetical Qualitative

A faculty researcher and an academic advisor want to determine how advising is conducted in the honors program at their institution. They decide to observe all honors program advisors at least four times across four semesters and to interview all the advisors twice. Each researcher interviews a sample of at least 20 students. In addition to these observations and interviews, the pair conducts a survey designed with mostly agree-disagree items. The survey also contains two open-ended questions through which advisors and advisees are asked to rate the importance of advising to them and their satisfaction levels with the honors advising program. Even though both researchers are known to all of the advisors who would be observed, they hold a general meeting to explain the project. The researchers read about different advising styles and approaches, and as they observe the advisors, they take field notes, tape-record interviews, and make transcriptions. They identify and describe thematic elements that they have observed occurring in advising sessions. After identifying the thematic elements, they compare all forms of data to see if those elements are found in different types of data collection (i.e., they triangulate their data).

Assumptive Quantitative

An academic advisor wants to answer the following question: How is developmental advising more effective than prescriptive advising with honors students? The researcher has read extensively about developmental advising, and because most of

the literature attests to the superiority of developmental advising, he is convinced that it is the more effective approach. One hundred fifty students complete the researcher's questionnaire and indicate their preferences for either developmental or prescriptive advising in 16 different advising situations. The researcher is sure that a statistical analysis of the questionnaire will support the superiority of developmental advising.

Assumptive Qualitative

An academic advisor asks the question: How is developmental advising more effective than prescriptive advising with honors students? The researcher designs a study to observe those who describe themselves as developmental advisors and also interviews them before and after making his observations. The researcher knows developmental advising is better than prescriptive advising and is looking for proof. Not only does developmental advising work better for the researcher's own advising, but the literature is replete with articles and descriptions of the developmental advising approach. The researcher is convinced that if the right questions are asked, the superiority of developmental advising will manifest itself.

Phenomenological Quantitative

Based on 12 years of full-time advising of exploratory students, an advisor sets out to prove that developmental advising is more effective than prescriptive advising. The researcher conducts the study because under the assumption that prescriptive advising is more efficient and effective for retention, the administration has recently mandated prescriptive advising for all freshmen. When asked about the types of data to be collected in support of developmental advising, the researcher expresses a preference for using some type of gain scores but states that the method did not matter because any data collected would show that developmental advising is better than prescriptive advising.

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erence for using some observations and interviews but states that the sources did not matter because any data collected would show that developmental advising is better than prescriptive advising.

Even though the modes of inquiry are assumed to be mutually exclusive, the differences between them can be subtle. For instance, the difference between a theory (hypothetical) and community agreement (assumptive) rests on the verification of the results and the ability to predict outcomes. For instance, the Greeks established that the earth was round by measuring the length of the shadow cast by a stick placed perpendicularly in the ground, first in a southerly location and then in another location many miles in a northerly direction. The longer shadow in the northern location supported the theory that the earth's surface was not flat (hypothetical—based on observation and verification). However, Columbus was advised that the earth was flat because “everybody knew” it was flat (assumptive—based on community agreement). The difference between authoritarian thinking (assumptive) and a personal belief held by an individual sans any type of verification or authority (phenomenological) rests on how an idea comes to be known. For instance, some say killing of humans is wrong because the sixth of the Ten Commandments prohibits murder (assumptive); their argument is based on an appeal to biblical authority. Others say killing is wrong because the thought of killing is repugnant to them (phenomenological).

Life presents occasions when each of the modes

of inquiry is an appropriate means of knowing. People express belief in ideas that may not have an empirical, factual basis, be it their views about an afterlife or the existence of one or more deities (phenomenological). They consent or comply with authority in the areas of law, ethics, and religion (assumptive). They invoke observation, inductive and deductive logic, theory, and prediction when they want to form conclusions on the best available explanation (hypothetical).

The *NACADA Journal* fosters and expects clear thinking regarding the research, theory, and practice of academic advising. Clarity about the thinking process and the appropriateness and trustworthiness of the evidence presented in the *Journal* is essential. Authors and readers must recognize when authors are speaking from belief, from their own knowledge base, or from empirical thinking. The voice of the authors and the eyes of readers should recognize the phenomenological, assumptive, and hypothetical modes of inquiry in the scholarly literature of academic advising.

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References

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Note New feature of the *NACADA Journal*

A relative emphasis key has been inserted after the key words of each article. These terms suggest the ranked prominence of research, theory, and practice in the article. For instance, an emphasis coded by *practice, research, theory* suggests that practice is a prominent feature of the article. Research methodology may be presented, but it is emphasized less than issues related to practice. In this example, the key also suggests that theory was least prominent in the article.