A Pilot Study Exploring Community College Faculty Perceptions Regarding Student Outcomes

Jennifer A. Eli, Kenneth D. Royal, and Kelly D. Bradley

University of Kentucky
Abstract

The purpose of this pilot study is to explore the paradigmatic differences in perceptions of community college faculty and the implications of these differences for student outcomes.

Student outcomes refer to the emotional, cultural, intellectual, and social growth of the student within and beyond the classroom. This exploratory and descriptive study will begin with a verification of faculty self-classification along the “hard” and “social/behavior” science paradigm continuum. Given the continuum of the paradigm, exploration into the similarities and differences between community college faculty perceptions of student outcomes based upon their personal classification will be examined. This study employed web-based survey instrumentation to measure faculty perceptions and attitudes towards student outcomes.
A Pilot Study Evaluating Community College Faculty Perceptions Regarding Student Outcomes

The purpose of this pilot study is to explore paradigmatic differences in perceptions of community college faculty and the implications of these differences for student outcomes. The study begins with an exploration of historical arguments regarding the supposed differences between the physical and social sciences. Next, the discussion moves to how these differences have influenced faculty perceptions and attitudes with respect to student outcomes. Finally, based upon faculty self-classification along the “hard” and “social/behavioral” paradigm continuum, researchers will discuss the similarities and differences between community college faculty perceptions of student outcomes.

Review of Literature

“Dating back at least to the writings of Auguste Comte, it has been thought that the sciences can be arrayed in a hierarchy, with well developed natural sciences (such as physics) at the pinnacle, the social sciences at the bottom, and the biological sciences occupying an intermediate position” (Smith, Best, Stubbs, Johnston & Archibald, 2000, 73).

The notion of differences between the physical and social sciences is as much an opinionated belief as it is supposed common knowledge. For hundreds of years, scientists have conducted research to identify and examine the supposed differences. The results indicate nothing definitive, as study after study has been reevaluated only to find other phenomena to explain previous correlations and findings. Eventually, most scientists discontinued researching the controversial issue (Cozzens, 1985). Today, most still believe there is a world of differences

---

1 For the purposes of this study, a “social/behavioral” science is any of the specialized fields or disciplines, such as psychology, sociology, anthropology, or political science, that interpret human behavior, institutions, society, etc., on the basis of scientific investigations for which it may be difficult to establish strictly measurable criteria. A "hard" science is any of the natural or physical sciences, such as chemistry, biology, physics, mathematics or astronomy in which facts and theories can be firmly and exactly measured, tested or proved.
between the sciences, although no empirical studies have been done in recent years to justify this claim.

Hedges (1987) suggests the most significant difference between the sciences is the issue of replication, as “hard” science research is far more replicable than social science research. Howard (1993) builds on Hedges work and goes on to say there is also an issue of “predicative accuracy”. Essentially, Hedges and Howard both question the validity and reliability of social science research in comparison to “hard” science research. This is crucial because it addresses methodological concerns.

Boucke (1923) published some very strong statements regarding paradigmatic differences in the 1920s. He stressed four key points: 1) social and physical sciences differ in methods and use different types of data and units of analysis; 2) social science data possess more variability; 3) social sciences generally attempt to bridge mechanistic and purpose-driven goals; and 4) social sciences tend to focus largely on qualitative correlations rather than quantitative correlations. According to Boucke, social sciences generally involve deduction or statistics where true experiments are not possible. Many would argue today that Boucke’s statements are not entirely true. Some would argue the scientific rigor involved in the social sciences is equivalent, but the nature of the data creates the disparities. This is evidenced by the existence of various experimental designs and the various statistical and measurement techniques involved in social science research.

These debates are further stemmed by Meyer (1999) who said: “About the hard sciences, we ‘know’ quite a bit. With the soft sciences, we know less than we do about the hard sciences” (71). Meyer states that accepted knowledge and insights exist in the “hard” sciences. He argues the social sciences are more difficult to measure because human nature is unpredictable. Social
science will never possess the certainty one may find in the “hard” sciences. For example, Meyer attempts to draw comparisons between physics and economics. In physics, one can measure atoms and cells with great precision and make solid predictions. In economics, virtually nothing is certain.

Cassell (2002) believes objective research is very difficult to conduct in the social sciences, especially when it pertains to topics such as terminal illness, death, and other such research topics. Cassell believes it is difficult for human researchers to desensitize themselves and fully withdraw from the research at hand. This also brings into question the issue of value-neutral social research. Cassell argues that even when the researcher attains the maximum amount of objectivity, social science research does not necessarily rise to the level of scientific legitimacy. Furthermore, social science research inherently involves values, and these values cannot ever be truly removed despite a scientist’s best efforts.

Other important methodological debates involve the possible reasons for the supposed differences. Hosman (1977) believes the debate between the “hard” and “social/behavioral” sciences is based on positivism, the belief that everything can be measured (or quantified). Hosman argues that if science were regarded as a “rhetorical enterprise” then what is considered rigorous scientific research would be more clearly defined and thus affecting the supposed differences between the “hard” and “social/behavioral” sciences. On the opposite side of this issue with an equally compelling argument is Meyer, who says, “Unlike our hard-scientist counterparts, we see ourselves more as competitors than collaborators. Our objective is not to add one more piece to the puzzle; rather, it is to push forward our own perceptions and viewpoints” (73). He supports his claim by stating “political scientists conduct their research,

---

2 In this context, a rhetorical enterprise is one in which scientists attempt to influence one another’s beliefs concerning the acceptability of theories and research findings (Hosman, 1977).
publish their books and essays, but they never resolve their differences, and thus fail to create a
shared body of knowledge” (73).

Still, despite the research, there are those in the scientific community who view the
differences between the “hard” and social sciences a myth. Houser (1986) says the differences
serve a purpose when defining scientific specialties, and in library-type instances, when
classifying scientific literature. Earlier scientific beliefs assumed empirical data was the norm of
science. The addition of philosophy to the equation later complicated the notion that physical
sciences are always verifiable. This resulted in many scholars believing there is no fundamental
difference, that one form of science is no better or “mature” than another (Laudan, 1977).
Regardless of whether one chooses to believe there is a presence or absence of differences, a
large amount of literature exists that exposes issues related to paradigmatic differences.

Bresser (1984) believes the differences are obvious on the physical front as departments
from high-consensus fields are more distinguishable and identifiable\(^3\). One may argue the issue
of funding in modern academe serves as another piece of evidence that differences exists
between the sciences, as it is largely the physical and natural science fields that secure the large
grants and sponsored projects. Another example of differences exists in the realm of research
publications. Neumann (1977) found a significant quantity of social science literature is
delivered in the form of books, whereas physical science research is predominantly published in
article form.

In related research, Price (1970) created an “Immediacy Index” with citations of
scientific literature. The results demonstrated an increased rate of obsolescence among works in
the “hard” sciences, as compared to “social/behavioral” science works. Cole, Cole & Dietrich

\(^3\) A high-consensus field is synonymous with “hard” science fields. The phrase “high-consensus fields” will be used
interchangeably with “hard science fields”.
Evaluating Community College

(1978) reevaluated Price’s data and found the Immediacy Index to be a snapshot of the different growth rates in the literature of various sciences. Furthermore, there was no true correlation between paradigm type and the obsolescence of scientific works. Another common belief pertains to journal rejection rates. For some time researchers believed the high acceptance rate of physical science literature and the significantly lower acceptance rate of social science was an indication of “hardness”. Later research found this is not necessarily accurate because of varying page and space limits (Beyer, 1978).

Even university faculties appear to be convinced there are paradigmatic differences. Lodahl & Gordon (1972) conducted a survey asking faculty to rank disciplines by their level of development. The results portrayed a mirror image of the Comtean hierarchy that ranked physics at the top and disciplines like sociology and political science at the bottom. This phenomenon is reflected in teaching practices. Tobias (1993) found significant differences between the way social science and physical science faculty taught their respective courses. Examples of differences are also present in the curriculum, as Thompson & Brewster (1978) found via a case study that social science faculties were far more flexible and lenient in terms of the academic curriculum than faculties from the physical sciences. This is further evidenced today by the widespread use of a strict curriculum in engineering programs, as compared to the more flexible curriculum available in sociology programs.

With regards to student outcomes (broadly defined), Finwick (2001) argues quality teaching is declining because college and university faculties are so scrutinized over student outcomes. Trowler (1998) argues this focus on outcomes is causing faculty stress and possibly compromising teaching. Kember and Gow (1994) found faculty perceptions of teaching can
affect student outcomes. This exploratory study attempts to expand the work of Trowler by seeking to better understand faculty perceptions of student outcomes.

**Purpose**

Although it is clear that understanding how the process of teaching may affect the perception of the end result (outcomes) is important, it is the researchers’ belief that understanding how perceptions of the end result (outcomes) may affect the process (teaching) could provide even greater insights. It is argued that when examining outcomes, one should not view outcomes as an end result of a linear path that is initiated by teaching. Instead, outcomes should be viewed as the beginning of the path because it has the potential to directly affect teaching.

This study was guided by two fundamental research questions: 1) What are the similarities and differences among various paradigms? Hackman and Taber (1979) and Thompson (1978) identified significant findings in how faculty view outcomes based on paradigmatic differences; this study seeks to further explore their findings. 2) Given self-classification along the paradigmatic continuum, what are the implications for student outcomes?

Outcomes in this research refer to both cognitive outcomes (intellectual growth) and non-cognitive outcomes (social, emotional, and cultural development). For instance, outcomes that are purely course oriented, as well as outcomes that are “bigger picture” as it contributes to the students’ personal growth outside of class will be considered the framework of reference.

**Method**

*Participants*
The targeted population is teaching faculty at Virginia and West Virginia community colleges. A judgment sample of faculty at five community colleges was used for this pilot study: New River Community and Technical College, Southern West Virginia Community and Technical College, Southwest Virginia Community College, Virginia Highlands Community College, and Wytheville Community College. These institutions were selected on the basis of regional representation, and a pilot sample comparable to that of KCTCS (the eventual site for major study) was sought. The sampling frame was derived from each college’s catalog of teaching faculty, as listed on their respective websites. The research team contacted departmental personnel at each of these institutions to ensure that the information on the college’s catalog of teaching faculty as listed on their website was up-to-date and accurate. A census sample within each institution was used. In general, a non-probability sampling design affects the generalizability of the results of a study. In this case, the selected sample is a relatively close match to the targeted population, making it arguably representative.

Instrumentation

A web-based survey was administered to faculty at five community colleges, one in West Virginia and four in Virginia. A web-based survey was the chosen method of measurement as most college instructors utilize e-mail accounts on a regular basis. Web-based surveys are relatively cost-effective, make efficient use time, and allow for instant data coding. Weaknesses associated with web-based surveys include lack of Internet access and variation in computer ownership and usage. To increase the response rate, participants were given the option of printing out the survey and faxing in their responses. The survey constructed was a modified version of the 2004 Faculty Survey developed by the Higher Education Research Institute (HERI) at UCLA. The instrument consists of questions using a 4-point Likert-type scale, as well
as a number of demographic questions directed at gaining a better understanding of the composition of the faculty. Several open-ended response questions were also included with the intention of allowing faculty the opportunity to expand on previous answers and to offer information otherwise unsolicited.

Procedures

Each teaching faculty member from the five aforementioned community colleges was contacted via e-mail with an explanation of the research study and its purpose (See Appendix 1). A link to the survey was provided in the cover letter. Participants were given the option of completing the survey online or printing the survey and faxing in their responses. The survey instrument informed participants that their participation was greatly appreciated, but not mandatory. Faculties were informed that all responses were aggregated, so that no one individual could be readily identified. In addition, participants were informed that their candid responses would be used for research purposes only, and their participation in the survey would be an indication of consent for their information to be used in the research study. To further ensure subjects’ rights, the researchers obtained approval from the Office on Research Integrity and the Institutional Review Board before proceeding with data collection. A printable copy of the survey instrument can be found at http://www.ms.uky.edu/~jrice/survey.

A field test of the survey instrument was conducted on University of Kentucky (UK) Engineering and Education teaching faculty, as they are a relatively close match to the targeted population, and arguably represent the extremes of consensus fields. Based on the field test, the research team determined and implemented necessary modifications to the survey instrument. The final version of the survey was placed on a secure website. The full-study participants were contacted via e-mail in August 2005. Participants were given two weeks to submit their
responses. A reminder e-mail for participation in the survey was sent after one week (See Appendix 2). At the end of the two-week period, access to the online survey was closed. All collected data were warehoused on a secure web server provided by Perseus Survey Solutions for storage and analysis.

Data Analysis

Using the Perseus Survey Solutions software, descriptive statistics that included counts and frequencies were determined. To compute functions not available on Perseus, the data were exported to Minitab 14 for further analysis. There, cross tabs and graphs were generated to gather a more comprehensive look at the data. Reliability estimates were determined using SPSS 12.0 software. All missing data were treated as missing.

Results/Discussion

Response Rates and Reliability

A total of 253 community college faculty members were contacted to participate in this study. The response rate for this survey was 16.2% as 41 out of 253 community college faculty responded to the survey. Every pilot institution participated with at least 6 respondents. The number of respondents across four of the institutions varied between 6 and 8, but Southern West Virginia Community and Technical College (SWVCTC) had 14 respondents, comprising 34.15% of the total number of respondents. This is important to note as SWVCTC is comprised of several campuses, much like an entire community college system within itself, so it does not limit representation among the colleges.

Table 1 displays the reliability estimates for the main questions in the survey instrument. Overall, the main questions 8, 9, 11, 13 and 15 proved to be highly reliable with $\alpha=.906$. Questions 9 and 11 also proved highly reliable with $\alpha=.933$ and $\alpha=.909$, respectively.
Table 1

*Reliability Estimates for Selected Questions*

<table>
<thead>
<tr>
<th>Question(s)</th>
<th># of items (N)</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,9,11,13,15</td>
<td>53</td>
<td>0.906</td>
</tr>
<tr>
<td>9</td>
<td>12</td>
<td>0.933</td>
</tr>
<tr>
<td>11</td>
<td>19</td>
<td>0.909</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>0.771</td>
</tr>
<tr>
<td>15</td>
<td>17</td>
<td>0.831</td>
</tr>
</tbody>
</table>

*Faculty Composition and Characteristics*

A total of 21 females and 20 males responded to the survey. Upon examination of the data it was determined that the gender representation in this research study is representative as the ratio of females to males at each institution were 30 female/26 male Virginia Highlands Community College (VHCC) faculty, 35 female/31 male Southern West Virginia Community and Technical College (SWVCTC) faculty, 29 female/22 male Wytheville Community College (WCC) faculty, and 14 female/16 male New River Community and Technical College (NRCTC) faculty. The gender breakdown of those contacted at Southwest Virginia Community College (SVCC) was indeterminable. Nearly 78% of the respondents reported having obtained at least a Masters degree and 17% held a doctoral degree. There were 7 Full professors, 16 Associate professors, 8 Assistant professors, 8 Instructors, 1 Part-time faculty and 1 did not specify his or her present academic rank. Table 2 lists the number of years teaching experience that each survey respondent had at his or her respective institution.
Table 2

*Number of Years Teaching Experience*

<table>
<thead>
<tr>
<th>Number of Years Teaching Experience</th>
<th>Count</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>5</td>
<td>12%</td>
</tr>
<tr>
<td>3-5</td>
<td>7</td>
<td>17%</td>
</tr>
<tr>
<td>6-10</td>
<td>5</td>
<td>12%</td>
</tr>
<tr>
<td>11+</td>
<td>23</td>
<td>56%</td>
</tr>
<tr>
<td>Did not respond</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>41</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Although the number of years experienced varied, over 50% of those surveyed had more than 11 years of teaching experience at their respective institution. Twelve (29%) of the faculty surveyed held tenure, eight (20%) were not on tenure track even though their institution had a tenure system, and 21 (51%) worked for an institution that did not have a tenure track system in place.

Table 3 indicates that nearly everyone is concerned with intellectual outcomes. The real disparities are identified when taking into consideration the non-cognitive outcomes. As the continuum of self-classification moves from strongly “social/behavioral” science towards “hard” science, respondents appear to be less concerned with emotional, social, and cultural growth of students, see Table 3.
Table 3

*Faculty Self Classification Compared to Perceived Importance of Outcomes*

<table>
<thead>
<tr>
<th>Topic</th>
<th>Faculty Self Classification</th>
<th>To Promote the…</th>
<th>Priority Level</th>
<th>Priority Level</th>
<th>Priority Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strong/Moderate Social</td>
<td>Highest</td>
<td>Lowest</td>
<td>Highest</td>
<td>Lowest</td>
</tr>
<tr>
<td>intellectual development of students</td>
<td></td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>emotional growth of students</td>
<td></td>
<td>0</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>social growth of students</td>
<td></td>
<td>0</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>cultural growth of students</td>
<td></td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Due to the evaluative nature of this study, data were analyzed using an elaboration model. The elaboration model allows researchers to understand the relationship between two variables through the simultaneous introduction of additional variables. Table 4 displays a contingency table where each column represents the dependent variable of self-classification and each row represents a community college. The nominal variable of gender is introduced to determine what effect, if any, it has on self-classification. From the table, it appears that gender may have an impact on how faculty classify themselves on the continuum. For this sample, females were most likely to classify as “balanced”. One future research goal will be to determine if other independent variables are responsible for this occurrence.
Table 4

Comparisons Between Self Classification, Gender and College

<table>
<thead>
<tr>
<th>College</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>New River CTC</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Southern WV CTC</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Southwest VA CC</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Virginia Highlands CC</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wytheville CC</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 5 gives a breakdown of faculty self-classification along with how they perceive certain educational goals for their students. An interesting finding for these data is that those faculty who classify themselves as moderately or strongly “hard” science perceive that “instilling a commitment to community service” as more important than those that classified themselves as “social/behavioral” scientists. The disparity in this finding could be due to the small sample size of those classifying themselves as “social/behavioral” scientists. Another interesting finding was that those who classify themselves as equally or slightly “hard” or “social/behavioral” perceive “emotional development of students” as more “essential” than those on either extreme.

Respondents who classify themselves as strongly “social/behavioral” perceive that “the ability to write effectively” and to “develop social skills” is more essential than those that align with a “hard” science paradigm. Those that classify themselves as equally “hard” and “social/behavioral” perceive that helping to “master knowledge in a discipline” as more important than those at the extremes.
# Table 5

## Faculty Self-Classification and Perceptions of Outcomes

<table>
<thead>
<tr>
<th>Topic</th>
<th>Strong/Moderate Social</th>
<th>Slightly – Middle – Slightly</th>
<th>Strong/Moderate Hard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Importance of educational goals to faculty</td>
<td>Priority Level</td>
<td>Priority Level</td>
</tr>
<tr>
<td></td>
<td>Strong/Moderate</td>
<td>Essential</td>
<td>Very Important</td>
</tr>
<tr>
<td>Develop ability to think critically</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prepare students for employment after college</td>
<td>2</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Prepare students for 4-year college or graduate education</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Develop moral character</td>
<td>1</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Provide for students’ emotional development</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Help students develop personal values</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Instill a commitment to community service</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Prepare students for responsible citizenship</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Enhance students’ knowledge of other cultures</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Enhance students’ appreciation for other cultures</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Help master knowledge in a discipline</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Develop creative capacities</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Enhance spiritual development</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Develop social skills</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Develop stress management skills</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Develop time management skills</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Develop money management skills</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Promote ability to write effectively</td>
<td>7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Promote ability to communicate orally</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>
Conclusions

Understanding faculty perceptions connected to student outcomes is important in the classroom and beyond. This study yields a number of contributions at the community college level, including being one of the first of its kind. Because of the diversity represented at these community colleges on the bases of education level, faculty credentials and majors offered, results indicated differences in responses between faculties along the continuum. This finding should not be taken lightly as it could explain some of the difficulties associated with “across the board” curricula and policies. Understanding faculty perceptions of these particular outcomes is also important as it relates to accreditation issues. As nearly every accrediting agency requires certain outcomes met, this research worked to reveal some of the intricacies involved as it relates to faculty acceptance or dismissal of certain goals and objectives.

A limiting factor of the study was the response rate; however, the sample was reasonably representative of the target sample. Still, it will be a focus of future studies to increase the response rate by 1) extending the period of time for which the survey can be taken, 2) continue to send reminder e-mails and 3) modify the request letter to better communicate the importance of the research study.

Future research should apply this exploratory study at other institutional types, particularly research universities where the overwhelming majority of faculty will hold terminal degrees and serve different functions than a community college professor/instructor. However, to move forward with the immediate research, this study will be “scaled-up” to a larger project involving the entire state of Kentucky and its Kentucky Community and Technical College System (KCTCS). In terms of lessons learned, this pilot study provides valuable information as to how to refine the survey instrument to increase the response rate and determine the
relationship(s) between deterministic properties and characteristics of respondents with their classification along the paradigm continuum. Other future research might include measuring additional outcomes and studying international faculties abroad for comparative purposes.
References

“2004 Faculty Survey”. Higher Education Research Institute, UCLA.


**Appendix 1: E-mail Cover Letter**

Dear Community College Faculty Member:

This survey is being administered to gain important information about you and your experiences as an instructor in a community college. The purpose of the research is to explore and evaluate community college faculty attitudes and perceptions regarding student outcomes in social science compared to hard science courses. Student outcomes in this research refer to both cognitive and non-cognitive outcomes as it contributes to the student personal growth outside the classroom. The survey should take approximately 10-15 minutes to complete.

All responses will be aggregated, and no individual will be identified. Your candid response will be used for research purposes only. A summary of the results will be available for those interested. An email with a link to the results page will be sent to faculty once data analyses are complete. The research team has obtained IRB approval to conduct this research study. The IRB approval number is 05-0575-X4G.

Your participation is greatly appreciated, but not mandatory. There are no potential repercussions for not participating. Your participation in this survey will be an indication of consent for the information to be used in our research.

To access the survey go to [http://www.ms.uky.edu/~jrice/survey](http://www.ms.uky.edu/~jrice/survey). You may choose to complete the survey online or you may print out the survey and fax your responses to 859-257-4243, Attn: Jennifer Eli.

If you have questions, or concerns please contact

Jennifer Eli  
University of Kentucky  
Department of Curriculum and Instruction  
918 Patterson Office Tower  
Lexington, KY 40506  
E-mail: jarice0@uky.edu  
Phone: (859) 257-1634

Kenneth D. Royal  
University of Kentucky  
Department of Educational Policy Studies and Evaluation  
281 Ralph G. Anderson Building  
Lexington, KY 40506-0503  
E-mail: kdroya2@uky.edu  
Phone: (859)-257-6336 Ext. 80664
Appendix 2: Participation Reminder Letter

Dear XXX college faculty member,

Let me take this opportunity to thank those of you who have completed our online survey. Your insights and perspectives are critical to our research and are most appreciated. For those of you who have not responded I ask once again that you do so at your earliest convenience. Your opinions greatly matter to us. Again, the link to the survey is: [http://www.ms.uky.edu/~jrice/survey](http://www.ms.uky.edu/~jrice/survey). Thank you once again for your time and consideration.

Best regards,

Kenneth

Kenneth D. Royal, M.S.Ed.
UK/WKU Joint Program Associate
University of Kentucky, College of Engineering
Department of Mechanical Engineering
281 Ralph G. Anderson Building
Lexington, KY 40506-0503
Phone: (859)-257-6336 Ext. 80664