Introducing Community College Students to Civic Involvement through Experiential Survey Research: A Case Study

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Background

Community college students often identify strongly with their region and hope that they will be able to continue to reside in the vicinity. Consequently, they can be strongly motivated to learn more about their communities' economies and social structures. Recognizing some limitations, instructors can connect students' motivation to community needs by involving them in the design and implementation of applied community-based survey research. Students in the 2007 human geography class at Mesabi Range Community and Technical College in northeast Minnesota successfully designed, implemented, and completed a descriptive analysis of a community quality-of-life survey. Valuable information was obtained for community development decisions. Active participation in the project helped students develop cognitive ability, provided them with opportunities to collaborate, and empowered them to participate more fully in community development efforts.

Introduction

Rural community colleges are often located in areas facing significant economic and social challenges (Rubin, 2001). College personnel understand that the future of their institutions depends heavily on the uncertain fortunes of the communities that they serve. They understand that if the communities served continue to suffer from declining population, out-migration of talented young people, unstable economies, and social problems such as chemical dependency, eventually the services offered by colleges will of necessity be reduced or, perhaps, even eliminated. Rather than simply observing such trends unfold, community colleges can take proactive steps to help reverse negative civic trends. This opportunity is augmented when it is understood that rural community college students can be anxious to participate in the betterment of their communities. When these conditions apply, opportunities to involve students in service-learning with a community development focus are almost unlimited. Taking advantage of these opportunities when they are present is essential as students' enthusiasm for community

involvement can diminish in negative circumstances if empowerment is not championed by dedicated instructors and institutions (Rothman, 1998).

One option for involving students in community development is through community-based survey research. Survey research projects can be designed to familiarize students with important issues facing their communities while providing local community leaders with valuable information. However, if the results are to be confidently disseminated to community leaders surveys must be carefully designed and implemented. A significant obstacle to proceeding is that few community college students have been trained to perform reliable survey research, and they often lack the quantitative skills to fully analyze the data gathered. Instructor experience is essential for guiding the process, but if the instructor assumes too much responsibility the pedagogical benefits will be diminished even if community leaders are provided with a broader range of information. Finding the right balance between the students' abilities and the need to provide useful information is important.

Instructors leading community-based survey research at the community college level should understand that the learning benefits of the experiential approach used to design and implement the project are the most important outcomes of the project. Nevertheless, the project's results must be reliable. Recognizing these factors, the hypotheses tested should not be obscure to the students, and their range should be limited. Students should be able to focus more on the learning process and the critical issues facing their communities than on fine causal connections that are often the focus of more advanced research. Institutions of higher learning are discovering the value of at engaging undergraduate students in research even if the outcomes are limited in scope. Not only can undergraduate research produce useful knowledge, it can be a good way to attract and retain students (Benson, 2002).

Project Conception and Evolution

Taking into consideration the concerns mentioned above, students in the 2007 human geography class at Mesabi Range Community and Technical College in Virginia,

Minnesota were invited to participate in an experiential survey research project designed to assess quality-of-life perceptions in their communities. The target population was all graduating high school seniors in the four primary high schools served by the community college.

A critical early task for the instructor is to clearly define the objective of the research project so that students will have a clear framework within which to work. The objective originally presented to the class was stated as follows: "To provide community leaders and planners with useful information for making decisions that will encourage a higher percentage of local graduating seniors to stay in the area or to return after receiving additional education and/or experience." Students immediately identified with the stated objective and expressed a desire to be involved.

Before the project design phase can proceed, students need to understand some basic survey design and implementation considerations. Preliminary instructions were provided to the class by the instructor to introduce students to these considerations. Particular emphasis was placed on minimizing response bias and on aligning response scales with the likely data analysis techniques that would be utilized (Dillman, 1978). The instructions introduced students to the issue of random sample selection, as frequently used in survey research. Since students had no training in statistical methods, the stated goal was 100 percent of graduating seniors in the region. Other preliminary comments included some discussion about the logistics of implementing the survey and the need to produce an easy-to-follow report that could be provided to all interested community leaders.

Students then participated in selecting the quality-of-life measures and demographic indicators that would be included on the survey instrument. Some suggestions were provided by the instructor, but the final list of measures and indicators was selected by the students themselves. The ten quality-of-life measures selected were job opportunities, social opportunities, family life, medical care, emergency services, crime, outdoor recreation, K-12 education, higher education, and friendliness. Students

decided that the best way to measure responses would be by using a 0-to-10 scale for each assessment category. In all cases, the higher the number selected by the respondent the more favorable the perception. The demographic indicators used included gender, tenure in the region, high school GPA, and political affiliation. Students also helped to write questions assessing educational plans and general perceptions of life in northeast Minnesota.

Each quality-of-life category was included as a separate item on the survey instrument, but students also felt that respondents should be given the opportunity to rank the importance of the quality of life categories. Students felt that this was necessary because the measures were likely to be of varying importance. For example, the students insightfully noted that being completely satisfied with outdoor recreational opportunities may not be as important to respondents as being completely satisfied with the area's ability to support strong family life.

As students discussed how the survey should be designed, rather than strongly leading the discussion, the instructor recorded and displayed the students' comments. The instructor made only occasional statements of guidance. While the project was strongly focused on the students' opportunity to learn by doing, taking a passive role in the classroom was an important learning experience for the instructor as well. Unless student comments would have created a completely unworkable survey instrument, they were included after being fully discussed by the class. Being willing to allow students to take real ownership in the project is necessary. If the instructor is inclined to inappropriately dominate the development of the survey instrument, student willingness to participate is greatly reduced. These observations are consistent with a growing viewpoint that students and instructors can gain more from classroom experience when both participate as learners and teachers (Astin & Astin, 2000).

The end result of our design phase was a survey instrument with 33 individual questions with responses measured using a combination of 0-to-10 scales, five-point Likert scales, and a few open-ended questions. Question wording was formatted in a way

to avoid response bias. Importantly, as the survey evolved, students were also able to make multiple connections between their project and the material covered in their human geography textbook. Connecting service-learning to academic material in this manner is always essential (Bringle & Hatcher, 1996). It was obvious to the instructor that making these connections enhanced students' motivation to study and learn the textbook material.

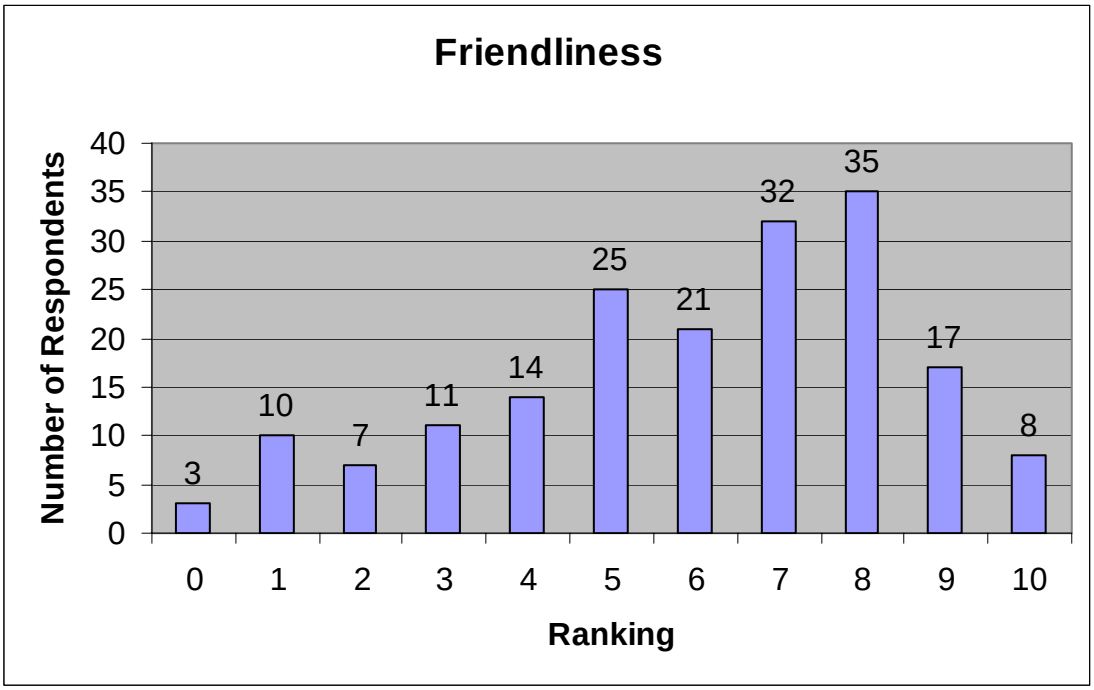
After the survey design was complete, students understood that they would be responsible for distributing the survey to the target population. Four students volunteered to distribute the surveys to the four primary high schools served by the college. This responsibility included talking with high school administrators to gain permission to conduct the study. Since all responses were submitted anonymously, permission was readily granted by every school. After approximately two weeks, a total of 183 useable completed surveys were collected. The actual response rate, including non-useable surveys, was approximately 50 percent of graduating seniors in the area.

When all distributed surveys had been collected, the class then began the challenge of entering and analyzing the data. Students gained a new appreciation for the difficulty of producing reliable knowledge as they worked to organize roughly 6,000 individual data points in a logical fashion. Options for organizing the data were presented to the class, and each student then helped organize data from one of five related groups of questions. Among these groupings were the open-ended questions which required students to develop coding schemes for analytical purposes. Students were instructed to continue their analysis beyond data organization. They were asked to interpret the data, including making connections between related variables used in the survey and between similar trends noted elsewhere.

Results

The organization and interpretation of results by the freshman and sophomore level students with no training in statistics were impressive. A few of the results that are representative of the work accomplished by the students are presented here. Students who had never organized data before were motivated to learn how to construct

histograms to study response distribution and central tendencies. Figure 1, depicting the friendliness quality-of-life measure, is representative of the work submitted by students.



When one reviews the distribution of the histogram it is apparent to an experienced researcher that the data exhibit a bimodal tendency. Given this observation, an experienced researcher would probably proceed with additional questioning in the attempt to explain the distribution pattern. However, as has been noted, the students in this particular class had not participated in a survey research project before and had not completed any statistical training. Nevertheless, meaningful comments were frequent. For example, one student provided the following interpretation of the data:

> "NE Minnesota is often criticized for being un-open towards diversity, but participants thought otherwise. Over 61% found friendliness above average, peaking at 'eight.' However, below 'average' is an interesting story. Nearly 25% of participants found the friendliness below 'average.' Three gave friendliness a 'zero' and ten a 'one.' It seems students were quite scattered on this view. No true consensus comes from this graph, the average being at 6 and over 13% were "unsure." [It is better to be] on the inside rather than being on the outside looking in. However, only eight found 'extreme friendliness' here."

Other variables provided students with opportunities to connect findings gleaned from across the survey. This was apparent in student analysis of the social opportunity quality-of-life category, the lowest rated quality-of-life category measured by the survey. A student wrote:

> "The average answer for respondents to the question relating to social opportunities was 4.77. This shows that the young people in the area are very unhappy with what there is for them to do socially. If there is nothing for young people to do socially that will occupy their time they will find other things to occupy their time that may be a detriment to themselves and the community. Many respondents to the question of what they like least about the area cited the need for more social opportunities. Many also state that because there isn't anything for them to do many turn to alcohol. Some even stated that many children as young as the 5th and 6th grade start drinking regularly. Alcoholism has a very negative affect on a community and creates a stigma that will take a long time to go away. Social opportunities could range anywhere from a dance club to a recreation center, but something needs to be done."

Interpretations like the one above should be of interest to area community leaders. The relevance of such comments was even more enhanced at times when comparisons were made to similar issues faced by other communities. An example of how students were able to connect local issues with similar issues in other areas comes from an interpretation submitted for the medical care quality-of-life category:

> "The average response for the question pertaining to the quality of medical care was 6.58. This is a fairly positive response, but could and should be higher. Medical care is often life and death, and is an important part of a community. If residents don't have a positive view of the area medical facilities, they will not bother to utilize them and instead utilize the facilities in Duluth or elsewhere. The Virginia Hospital along with small town hospitals in northeastern Minnesota have had problems attracting new physicians to their facilities. This is a major problem and could eventually lead to the closing of some of these hospitals. Steps need to be taken in order to prevent the closing of small town hospitals in northeastern Minnesota. Physicians are not going to go to a hospital with outdated facilities or sub-par medical equipment when they could go somewhere else with top of the line equipment. The major step taken at Jackson Community Hospital in Altus, Oklahoma was to update their technology. It is only a 103 bed hospital, but despite their limited size they were able to update their mobile software after complaints were being made by their doctors that it was difficult to access patient files. They were able to purchase the system for less than $200,000 by shopping around for the best deal and obtaining discounts by joining a hospital network. They were also one of the first hospitals in Oklahoma that purchased this particular system and because of that they qualified for another discount."

Discussion

The design, implementation, and analysis of the experiential community research project described here required five dedicated class periods with significant student attention extended over an approximate six-week time interval. As a graded component of the course the over-all weight evolved with experience. Because this service-learning project was the first of its kind used in the class, the instructor was unsure of how fully students would embrace the academic nature of the project. Consequently, the instructor was reluctant to initially assign much grading weight to the project. When it became apparent that students were willing to spend considerable extra time working collaboratively on a project that was personally salient to them and that clearly augmented the academic rigor of the course the weight was eventually increased (Howard, 1993). In fact, in nine years of higher education teaching experience the instructor has not been involved in a class project embraced more enthusiastically by virtually all class members than the one described here. Some students have even expressed interest in presenting the material to area civic organizations in the future even though they are no longer enrolled in the human geography course.

The pedagogical benefits of this service-learning project can be examined within the framework of models used to describe the experiential learning process. Researchers generally agree that experiential learners should have the opportunity to gain concrete experience with their topic, make observations and reflections, work toward forming abstract concepts, and test their knowledge in new situations (Kolb, 1984). This service-learning project met the first two objectives well, touched on the third, but has not yet extended to the fourth goal. A challenge with reaching the goal of applying the knowledge to new situations is the relatively short duration students and instructors interact in community colleges when compared with research conducted in a graduate school environment. Yet, because students will be given copies of the final report they will have a resource to help them voluntarily apply what they have learned to other situations.

The task of completing the final report by aggregating student analysis and interpretation as well as by adding additional material and testing hypotheses falls upon the instructor. While having the students complete the final report would have been a constructive addition, the time commitment was viewed by the instructor as being excessive given the need to cover a substantial amount of additional core course material. Given the success of this initial project, however, subsequent experiential survey research projects will include earlier and more frequent connections with core course material; thus enhancing the learning process throughout most or all of the semester. As future trials are conducted student learning with and without a survey research service-learning component can be reliably compared and assessed.

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