

Learn By Doing: Service Learning Projects as a Pedagogical Tool for Teaching Research Methods

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The University of Southern Indiana defines service learning as “an academic pedagogical approach to university education that incorporates community projects into courses” with two broad goals: (1) enhancing student learning by (2) providing a valuable service to the community. During the 2008 fall semester, the students in our political science methodology course participated in a service learning project, where they collected data pertaining to the efficiency of the Metropolitan Evansville Transit System (METS). As a part of this project, the students participated in a content analysis of the METS website, conducted empirical observations on the buses, and designed and implemented a rider survey. Do service learning projects improve student retention of course materials? A descriptive case study is used to analyze this question. Data collection includes an analysis of research journals, a survey of student attitudes about the project, and a statistical analysis of student knowledge.

In the early spring of 2008, the University of Southern Indiana’s Center for Applied Research was approached by the Evansville Mayor’s office to complete an efficiency study of the Metropolitan Evansville Transit System (METS). As a result of this request, the University’s Department of Political Science and Public Administration added a significant service-learning component to its existing research design course. The students in this course participated in a content analysis of the METS website, conducted empirical observations on the city’s buses, and designed and administered survey to the METS riders. This article serves as a descriptive case study of this course, looking at the question of student retention of course materials. That is, does participating in a service-learning project improve a student’s retention of course content? I begin this paper with a brief overview of the history of service-learning, provide a definition of the concept, and describe the University’s commitment to service learning. I then provide the reader with an overview of the service-learning project and a discussion of student learning outcomes. In the end, I conclude that service-learning projects work well in teaching “life lessons,” but question their use in improving student retention of course materials.

A BRIEF HISTORY OF SERVICE LEARNING

Each year, more and more college courses are embracing “service-learning” as an educational tool. These activities vary – from developing art history mini-lessons for grade school students to assisting nonprofit agencies with fundraising efforts, from collecting oral histories while befriending retirees in nursing homes, rehabilitation centers, and veterans’

hospitals to conducting energy audits for local businesses and schools, from running voter registration drives to creating an environmental education clearinghouse (Volunteer Action Center, n.d.). In the case of political science, service learning can range from working on campaigns to doing internships with state and local government agencies, from building Habitat homes while learning about the organization’s international focus to doing an efficiency study like the one highlighted in this paper.

Our country has a long history of civic engagement. According to the *Principles and Reforms for a Citizens Service Act*:

Citizen service has always been a cornerstone of our democracy. Citizens have acted individually or through voluntary associations to found hospitals and libraries, start fire companies and civic improvement projects, and help cure diseases and advance rocketry that would fulfill our most distance dreams. Today, millions of Americans continue this tradition of service (Corporation for National and Community Service, 2002).

During the Depression era, programs such as the Civilian Conservation Corps offered young people a chance to support their families while providing service to the community. The creation of the Peace Corps and VISTA (Volunteers in Service to America) under Presidents Kennedy and Johnson continued this trend (Corporation for National and Community Service, n.d.).

Legislatively, the push for civic engagement has been supported by the *National and Community Service Act*

of 1990 and the *National and Community Service Trust Act of 1993*. Former President George W. Bush continued this trend towards community service through the establishment of the President's Council on Service and Civic Participation (see Executive Order 13285, 1/29/2003). During their campaign for the presidency, Barack Obama and Joe Biden put forth a plan for a Universal Voluntary Citizens Service that included the expansion of the Corporation for National and Community Service and a call to expand service-learning efforts in middle school, high school, and college (Obama for America, n.d.) More recently, President Obama signed the *Edward M. Kennedy Serve America Act* into law; this bill reauthorized the Corporation for National and Community Service, set the goal of increasing the number of AmeriCorps members to 250,000 by 2017, and expanded eligibility for the Senior Companion and Foster Grandparent programs (Public Law 111-13).

Yet, Robert Putnam's research – which has worked its way through both academic and popular audiences – points to a downward spiral in civic engagement. Americans are more likely to “bowl alone” than join bowling leagues, their levels of democratic participation are on the decline, and overall organizational membership has diminished (Putnam, 2000; Putnam, 1995). Others, however, have argued that young Americans are becoming more engaged in civic life through the use of the Internet (see, for example, Trippi, 2008). Either way, is it any wonder that American universities are latching onto the idea of teaching through community service?

It would be a fallacy to say that service learning is a recent development. Indeed, the melding of service and learning has been around for most of the 20th century. As many “folk schools” in Appalachia converted to colleges, they continued to include service based learning in their curriculums (National Service-Learning Clearinghouse, 2004a). An even more historical charge to college students came from Horace Mann, the first president of Antioch College (OH), whose famous quote, “Be ashamed to die until you have won some victory for humanity,” was repeated during the college's graduation ceremonies until its closure.

Today, professors are beginning to move beyond the traditional format of lectures, exams, and research papers to include more experiential teaching techniques. As for service learning, a survey of 349 campuses showed that 12.2 percent of faculty offered service learning courses during the 1999-2000 academic year. In addition, over 700,000 students had participated in some form of service (National Service-Learning Clearinghouse, 2004b). For a more local example, 56 faculty members offered 80 service-learning courses at the University of Southern Indiana during Fall 2008 – the semester during which this case study was conducted (Extended Services, 2008).

DEFINING SERVICE LEARNING

The term “service-learning” was coined in 1966 when a TVA-funded project linked students and faculty from East Tennessee Ridge Associated Universities with development organizations (National Service-Learning Clearinghouse, 2004a). Since this time, the term has been applied in many ways. As the National Service-Learning Clearinghouse (2004b) states:

Service-learning is still evolving and has not yet settled into a shared vocabulary, a set of common ideas and theories, and a generally accepted approach to validation. This has encouraged a great deal of experimentation, discovery and local adaptation, but it is also impossible to have one definition for all service-learning programs.

For this article, I will use the definition of service-learning provided by the University of Southern Indiana:

Service-learning at USI is a powerful community based pedagogy technique, a strategy that integrates meaningful community service with instruction and structured reflection. It benefits students by enriching the learning experience and teaches civic responsibility. It benefits faculty and staff by opening avenues for scholarly work in any area, including the emerging areas of the scholarship of engagement and the scholarship of teaching (Extended Services, n.d.).

Based on this definition, the University has developed five objectives for service-learning courses:

- The project is based on a community and academic partnership in which mutual benefits or services are exchanged;
- Learning occurs because of the project improves the academic competency of the students;
- The combination of academic learning and community service helps to transform students into engaged citizens;
- The project product or reflective analysis forms the research/creative work;
- Ethical practices inform all phases of the project. Care must be taken that no parties are exploited (Extended Services, n.d.).

Based on these objectives, the Service Learning program has developed five learning outcomes for students: enhanced civic and democratic engagement; enhanced capacity for difference/change making; enhanced learning through disciplined reflection; greater comfort/skill in working with diverse groups and environments; and an enhanced sense of belonging to the USI community (Extended Services, n.d.).

The project analyzed in this case study met three of these learning outcomes. *First*, the students' learning

experience was enhanced through disciplined reflection. This included learning how to navigate the Institutional Review Board, developing a working knowledge of professional ethics, designing and implementing a survey instrument, and using Excel and SPSS to organize survey data. *Second*, the project forced the students to become more civically engaged in the Evansville community. As a part of this project, the students were essentially “contractors” for the Metropolitan Evansville Transit System. Their work on the project gave the students a greater depth of understanding about public policy and public administration at the local level. Furthermore, the students had the opportunity to make policy recommendations based on the data they collected. *Finally*, the students developed a greater comfort level for working with diverse groups of people. As a part of this project, our students – many who are from small towns and have never used public transportation – interacted with community members from diverse racial, cultural, and socioeconomic backgrounds. [Please see Appendix A for the overview handout distributed to students on the first day of class.]

More broadly, service learning projects have been touted as providing both community and educational benefits. According to the Communications for a Sustainable Future website at the University of Colorado, students who participate in service learning projects contribute “thousands of hours of service to people in need, non-profit agencies, private sector companies, non-governmental and governmental agencies” (Crews, n.d.). This was true in our case, as our class spent approximately 500 hours doing content analysis of websites, writing and implementing the rider survey, doing census counts and empirical observations, and coding data for the first phase of the METS Efficiency Study. Service learning projects can also increase a student’s retention of materials while teaching job skills that are needed for life after graduation (Crews, n.d.). Finally, service learning allows faculty members to be innovative and creative in their teaching styles. As faculty members come out from behind the lecture podium, they are able to appeal to many of the different types of intelligences that their students have which will improve the educational quality of life for students who are not visual or verbal learners (see, for example, Gardner, 1993).

SERVICE LEARNING AT USI

The University of Southern Indiana is a comprehensive four-year public university located in Evansville, Indiana, with a student enrollment of approximately 10,500. In December 2008, USI was designated as a Carnegie Foundation Engaged University in recognition of the University’s collaboration with the tri-state community through both curricular engagement and outreach partnerships. As related to this paper,

curricular engagement is defined as including institutions where:

[T]eaching, learning and scholarship engage faculty, students, and community in mutually beneficial and respectful collaboration. Their interactions address community-identified needs, deepen students’ civic and academic learning, enhance community well-being, and enrich the scholarship of the institution (Office of Planning, Research, and Assessment, 2008).

USI provides support for curricular engagement through its Service Learning program, housed in the University’s Extended Services office. Services provided through the Service Learning program includes: (1) assistance with the training of students; (2) assistance with logistics, such as transportation; (3) assistance with preparation and duplication of reports; (4) assistance with small financial needs; and (5) assessment of service learning projects through surveys distributed at the end of the semester. The Service Learning program also sponsors a summer institute for faculty and works to develop “course agreements” between the instructor and his/her community partner (Extended Services, 2009).

POLITICAL SCIENCE RESEARCH METHODS

As of Spring 2005, political science majors and minors at the University of Southern Indiana have been required to take six hours of political science research methods. The two part series includes three credit hours of research design and three hours of social science statistics. Political Inquiry I, the subject of this case study, is offered each fall and has been taught by Dr. Hallock Morris since its creation. The course is described as:

An examination of how the scientific method is applied to the study of political phenomena. Topics range from how to develop and test hypotheses to writing surveys and conducting interviews; from engaging in content analyses to conducting focus groups and collecting data. Students will become better consumers of the political science literature; will become well-versed in several data collection methods, and will become adept at writing research designs (Department of Political Science and Public Administration, 2009).

Students who take this course are typically juniors and seniors. Originally capped at 20 students, enrollment numbers have increased to 35 – 40 students per semester. Furthermore, the course is now listed as an option for students majoring in Criminal Justice Studies.

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THE METS EFFICIENCY STUDY: PROJECT BACKGROUND

In the early spring of 2008, the University of Southern Indiana's Center for Applied Research (CAR) was approached by Evansville Mayor Jonathan Weinzapfel to complete a series of efficiency studies related to city services. One of these studies pertained to the operations of the Metropolitan Evansville Transit System (METS). Created in 1971 to deal with the city's growing need for public transportation, METS had not undergone a needs assessment since 1998 (Metropolitan Evansville Transit System, 2009).

CAR staff members approached Dr. Hallock Morris, (then) acting director of the Master of Public Administration program, about participating in the efficiency study. Dr. Hallock Morris, who teaches the department's undergraduate research methods course, determined that the METS efficiency project would work well as a service-learning project for POLS 331, Political Inquiry I. In April 2008, the initial project scope was outlined by CAR staff members, METS staff members, and Dr. Hallock Morris. The syllabus and assignments for the course were designed during a summer institute on service learning with the course offered in Fall 2008.

METS Background. The Metropolitan Evansville Transit System (METS) provides coverage to a city of approximately 114,000 people with 13 fixed routes, a west connection that extends to the University of Southern Indiana (USI), an east connection that is a combination of a fixed route with demand response services, and the USI campus shuttle. At the time this study was conducted, eight of the fixed routes and both connection routes were operating on a half-hour schedule during daytime hours. The other five fixed routes operated on an hourly schedule. After 6 p.m., METS merges four of its fixed daytime routes into two night routes covered by the Mary-Howell and Stringtown-First Avenue buses (US. Census Bureau, 2008; Metropolitan Evansville Transit System, 2009).

METS' operating hours are from 5:45 a.m. to 5:45 p.m. for the "A" routes and 6:15 a.m. to 12:15 a.m. for the "B" routes. The east connection runs from 6:15 a.m. to 11:45 p.m.; the west connection operates from 6:45 a.m. to 12:10 a.m. During the academic year, the USI campus shuttle operates 14 hours per day. METS provides limited service on Saturdays and does not operate on Sundays or national holidays (Hallock Morris, 2009).

According to the METS' website, the system's buses and paratransit vans have transported more than 45 million passengers over the past four decades (Metropolitan Evansville Transit System, 2009). During the first 10 months of 2008 – the time period encompassed by the USI study – METS had recorded over 1.5 million discrete rides. The system had a

monthly average of 152,620 rides during this time period, with September and October's ridership numbers trending upward.¹

Project Background and Student Assignments. On the first day of class, each student received a copy of the course syllabus and an outline of the METS project. The initial lecture focused on the course requirements – which were explicitly linked to the METS efficiency study – and the course goals. In addition, the professor stressed the link between service-learning and professionalization in the field of political science. As the semester progressed, the students built a knowledge base about research methods through readings and lectures; this knowledge base served as the framework for the practical aspects of the project.

The first assignment involved an analysis of the METS website. Each student conducted an individual analysis of the website answering questions related to: (1) the structure and navigability of the site; (2) the information on the site; and (3) the usefulness and readability of the route maps. Students were also prompted to list their recommendations for improving the site. [See Appendix B for the assignment guidelines.] By doing this early in the semester, the students were able to familiarize themselves with the METS system before constructing the rider survey. However, at this point in the semester, the undergraduate students were not yet trained in content analysis so the individual assessments were compiled into a master analysis by two students in the Master of Public Administration (MPA) program. These graduate students looked for overarching themes, problems, and recommendations for fixing the website. It should be noted that the METS stand-alone website has since been eliminated with much of the information migrating to the City of Evansville's website. However, many of the comments from the content analysis, especially those related to the route descriptions and the maps, are still relevant.

The students' second assignment was to complete the University's human subjects research certification test. The test was required by the University as all of the students would be interacting with METS clientele during the administration of the survey, the census counts, and the empirical observations.

After a series of lectures and readings related to survey construction, the students embarked on writing the METS survey. The professor assigned the students to four groups with each group writing a series of questions related to a particular topic (i.e., demographics, routes, benefits and problems related to the METS system, and information about the system). Each group presented their questions to the class and revisions were made. As a homework assignment, each student administered three pilot surveys to bus riders on campus. Using feedback from the pilot surveys and

from conversations with the acting director for METS, the final rider survey was constructed.

At this point, the students were ready to do the field work for the METS efficiency study. During the week of October 27, 2008, the undergraduate students collected 647 valid surveys from the METS' clientele base. The surveys were administered at various locations throughout the city: the downtown transfer terminal, the Lawndale transfer terminal, the Eastland Mall transfer point; the west side transfer point located at a local grocery store; and at the community college located on the north side of the city.² The students were monitored by the professor and a graduate student who was working on the project. When a student was having difficulty approaching riders to complete the survey, the graduate student stepped in and helped the undergraduate gain confidence. Each student was required to complete 20 surveys to receive credit for the assignment; some students completed more to earn bonus points. [See Appendix C for the assignment guidelines.]

During the same time period, the students were required to complete empirical observations and census counts. The census counts were conducted during the weeks of October 27 and November 3, 2008. Each route in the system was ridden at three different times of day (early morning, mid-day, and late afternoon/evening). Additional census counts took place during the weeks of November 10 and November 27, 2008, with the students concentrating on night and Saturday service. During each ride, teams of two or three students would count the number of riders entering and exiting the buses at each stop.³

These student teams were also responsible for completing empirical observations on the buses. Each team completed an empirical observation form for each ride on a METS bus. Students were asked to assess the following:

- *The overall cleanliness and maintenance of the bus* – i.e., did the heat work? Did the handicap lift work? Did the bus have a bike rack?
- *The quality of the experience* – i.e., were the drivers helpful? Did they talk to riders while driving?
- *The signage along the route* – i.e., were signs missing along the route? Did the bus follow the route listed on the check sheet?

The census data was compiled into a master count by the professor. This data was then used in Phase II of the efficiency study (discussed below). The information from the empirical observations was summarized for use in the final report by the graduate student who worked on this project. However, the undergraduate students were required to code the surveys for the final analysis using the codebook written by the professor for this course. Each student was required to code 15

surveys for credit; the remaining surveys were coded by the professor, by an undergraduate student worker, and by the lead graduate assistant on the project.

For their final assignment, each student was required to write a journal that reflected upon the research project. The entries could focus on academic, life, or professional lessons learned by completing the project. Each journal was to include six entries based on the following topics: (1) the process of writing the survey; (2) the administration of the pilot survey; (3) the administration of the actual survey; (4) the empirical observations; (5) the coding process; and (6) the overall pros and cons of the project. The students were also asked to complete a "student feedback survey" pertaining to the course and the service-learning project. [See Appendix D for the assignment guidelines and Appendix E for the student feedback survey.] These journals and surveys were then used to develop the case study analysis for this paper.

Mission Creep and the Final Project Scope. From its inception, the METS efficiency study was faced with a serious problem – mission creep. Although the study of the METS system began as a service-learning project for a political science methodology course, it grew to include graduate assistants from the department's MPA program (who were paid small stipends for their participation), two industrial engineers, a computer science professor, an English composition class and the director of the University's Office of Planning, Research and Assessment. The expanded project included:

- A second survey aimed at the broader community was written by the professor for the course, the lead graduate assistant, and the OPRA director, with 610 surveys collected between December 3, 2008, and January 26, 2009. These surveys were collected online and in person by MPA student volunteers and undergraduate students in the research methods course.
- The creation of a route and transportation analysis by two industrial engineers using the census data collected by the methods students.
- The presentation of recommendations aimed at improving the information flows between METS and its riders from the English composition students.
- The development of beta software to create personalized instructions and directions for using METS from the computer science professor.

At the time this article was written, the Center for Applied Research was in negotiations with the new METS director to continue the efficiency student for another 18 months. This second phase would include

census counts taken throughout the year, as well as additional survey research.

THE CASE STUDY: IMPROVING STUDENT RETENTION THROUGH SERVICE LEARNING

At the beginning of this article, I asked the question: “Do service learning projects improve student retention of course materials?” For this descriptive case study, I analyzed three types of data: (1) student grades from five semesters of research courses; (2) the student feedback forms from Fall 2008; and (3) the journal entries from Fall 2008.

Comparative Data, Fall 2005 – Fall 2009. Table 1 provides a summary look at the final grades for all students who have taken POLS 331 Political Inquiry I, since its creation in Fall 2005. This course has been taught by the same professor and has been taken by 153 students. The average final grade, calculated on a 4.0 scale, ranges from a low of 2.25 (approximately a C) in Fall 2006 to a high of 3.23 (approximately an A) in Fall 2005.⁴ During the semester that the service learning project was offered, the average final grade was a 2.73 (approximately a C+). Furthermore, this was the second lowest average in the five year data set. The table also includes the average grade on the final exam for Fall 2006 through Fall 2009.⁵ The final exam averages ranged from a low of 63.92 during the semester of the service-learning course to a high of 85.8 in Fall 2009.

Taken at face value, this data seems to demonstrate that the students who participated in the service-learning project did not perform well on the final assessment measure (i.e., the final exam) or in the course. However, we need to consider the various threats to internal validity. There is no guarantee that the student abilities were the same from semester to semester (i.e., the problem of non-equivalent groups). Second, although the exam were very similar from semester to semester, it is plausible that wording changes would make a difference. Third, there is the potential for history threats in this project; for example, the professor may have an “off semester” in teaching the class or may have used better examples when explaining the materials. There are other explanations as well: (1) the exam time slot could have had an impact on student performance (later in the week vs. earlier in the week); (2) the students may have been so focused on the surveys and empirical observations that they did not learn the other course material as well; and (3) the students may have earned enough points on the service-learning project that they took a gamble when studying for the final exam. Better data is needed to further examine the retention of course materials.

Student Feedback Forms. The student feedback about the service-learning project was overwhelmingly positive. While some students complained about the weather (which, obviously could not be controlled), the

TABLE 1. Summary Data for Five Semesters

Final Grade	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
A	11	8	14	11	13
B+	4	0	4	4	5
B	2	2	6	6	6
C+	4	4	2	0	3
C	5	0	4	8	1
D+	0	2	0	1	0
D	0	3	2	2	3
F	0	4	2	2	1
IN	0	1	1	1	1
N-Size	26	24	35	35	33
Average (Quality Points)	3.23	2.25	2.94	2.73	3.03
Final Exam Average	N/A	68.29	71.37	63.92	85.8

majority of students were excited to have participated in a study that would be used “in real life.” Of particular importance were the student answers to the question “Do you think that this service learning project improved your understanding of political science research methods?” Eighty-eight percent (29 students) of the respondents indicated that the METS project improved their understanding of the research process. For example, one student wrote that “Real life examples are always helpful and tend to be more fun/interesting.” Another stated that the project was helpful because s/he “had never seen how the material we learned was used in real world application (sic).” One student stated that this type of project would help him/her when s/he went to graduate school and still another stated that this course served as an introduction to research and that the department should expand its methodology offerings.

The students were also asked to evaluate the link between the course materials and the project (see Question 5, Appendix E). Sixty-five percent of the respondents answered the question positively; another 19 percent were neutral and 16 percent felt that they needed more background information before entering the field. Wrote one student, “As a group, we had the proper information, but I don’t feel that I personally had enough background information to design an effective survey on my own.” Another student stated that “I feel I didn’t (have enough background information) at first, but now I feel like an expert.”

The students were asked what they liked best about designing and administering the survey (See Questions 3 and 4, Appendix E). Several students commented that they enjoyed interacting with the individuals who rode the METS system on a daily basis. For example, one student wrote that s/he liked “communicating with other people and finding out what there (sic) lives are like.” Other students commented that they enjoyed completing a project that would help the city. For example, one student stated that s/he had a feeling of “contributing to the city welfare and fulfilling civic duty.” While these answers do not indicate improved retention of course materials, they do demonstrate that the project met two of the University’s objectives for service learning – enhanced civic and democratic engagement and greater comfort in working with diverse groups and environments.

Journal Entries. Much like the feedback on the student feedback survey, the journal entries were also quite positive. Some students focused on the things that they had learned in the project while others focused on professionalization, social inequality, and learning about the community. Representative comments are included below:

- *I knew that statistics were a lot of time very bias (sic), but I did not know how or why they were this way. Through this entire process, I was able to learn how easily statistics could be skewed because of error that can sometimes be controlled and sometimes not. The problem of instrument decay that I went through while administering the survey was something that was unavoidable as far as the weather goes.*
- *I had no idea the amount of work or how large the spectrum of the survey we were to be doing was ... Starting to write a survey is like starting to ride a bike, you need to be patient and persistent.*
- *One thing that I liked about this project was the interaction with people outside the classroom. During any normal class, there is no interaction with people other than the students. This made the class a little bit more exciting and interesting.*
- *We are now IRB certified by taking part in this project. This is good for a resume. Another good resume builder is that we were considered Service-Learning Contract Employees through the University of Southern Indiana and the City of Evansville.*
- *Evansville as a city, not just Evansville METS, benefits as a whole from us doing this project. It was in our aim (sic) to better the city of Evansville by bettering the Evansville METS experience. Many of the people I handed*

surveys to were glad that our class was doing this.

- *While doing the surveys, I interacted with some people my age who were homeless, unemployed or working fulltime (sic) without the opportunity to get a higher education. This experience made me gracious (sic) for what I have in my life.*
- *I have found that the process of generated (sic) good research questions and responses, conducting thorough and careful encoding and analysis of data are absolutely essential to “doing good science.”*
- *I think the bus system study was a good experience, but I am still not sure on the usefulness of the data collected for METS. The problem with METS, like most mass transit systems, is it is under funded (sic), and no amount of surveying or tweaking of bus routes in going to change that. Busses work well in places like New York City where the population is dense all over, but places like Evansville have people spread too far out.*

CONCLUSION: DOES SERVICE LEARNING MATTER?

While I am not convinced that the students in my service-learning class retained more information about research methods, I do believe that the experience was beneficial in many ways. It pushed students out of their comfort zones by forcing them to interact with diverse people, it encouraged them to be active citizens who contributed towards the good of our city, and it caused many students to appreciate the positive aspects of their own lives. Furthermore, the professionalization aspects of the project were excellent. The students had to dress appropriately, show up on time for appointments, and complete tasks on time. They also learned how a research course – which most students find boring and not useful beyond school – actually can be applied in a real world setting.

This is not to say that the focus on student retention of course materials is not a valid question, just that it is one piece of a much larger puzzle. In order to learn more about retention, additional data measures are necessary. One potential route would be to use individual scores from the Political Science Major Field Test (a national standardized test), comparing the methodology results of students who have participated in the service-learning class with those who have not. However, this particular project will continue have trouble with a small n-size which makes statistical analysis almost irrelevant.

From a more practical standpoint, readers of this article can take away lessons on how to structure a service-learning project in a research methods course. A

word of warning, however, is necessary. These projects are time consuming and can be difficult to implement. Even though our University has a strong service-learning program, this particular project was plagued with several challenges – a migrating website, the lack of a complete system map, changing leadership, and communication flow issues with the community partner.

NOTES

¹ September 2008 ridership numbers equaled 171,154. October 2008 ridership numbers equaled 185,724. Data provided by Metropolitan Evansville Transit System staff members.

² Due to the nature of the population, the research team had to rely on convenience sampling. Thus the survey data will have some limitations such as a sampling bias. The majority of the surveys were collected during the work week between the hours of 8 a.m. and 5 p.m. Therefore, the sample may not be representative of weekend or night riders. Furthermore the surveys were collected during the first cold week of the fall, which may have kept some regular riders at home. However, if we assume that METS has 1,590 discrete riders per month, the sample would account for approximately 41 percent of the system's ridership. This estimate is based on the following calculations: 152,630 rides per month (10 month average, based on METS ridership numbers from March – October 2008) ÷ 24 operating days per month (6 days a week for four weeks) ÷ (4 buses per person (2 buses per one-way trip * 2) = 1,590.

³ The professor for this course created a route check sheet for every route in the system. A comprehensive list of stops was developed by using the METS website, the existing (but outdated) printed *Ride Guide*, and – ultimately – by driving each route in the METS system. There were several errors in the route descriptions on both the website and in the *Ride Guide*.

⁴ The University of Southern Indiana uses a modified grade scale: A = 4.0; B+ = 3.5; B = 3.0; C+ = 2.5; C = 2.0; D+ = 1.5; D = 1; F = 0). The University does not use “minuses” nor does it award an A+.

⁵ A final exam was not given in Fall 2005. Instead, the students completed a final project and presentation.

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APPENDIX A. OVERVIEW OF PROJECT AS GIVEN TO STUDENTS

Overview of Service Learning Project: Fall 2008

Service-Learning Course: This semester, POLS 331 will have a significant service-learning component. The University of Southern Indiana defines service learning as “an academic pedagogical approach to university education that incorporates community projects into courses” with two broad goals: (1) enhancing student learning by (2) providing a valuable service to the community. This semester, students in POLS 331 will learn how to design and implement a survey by working on one of the Mayor's Efficiency Studies; our particular study will examine the METS Bus System. See the following website for more information about service-learning at USI: <http://www.usi.edu/extserv/outreach/ServiceLearning.ASP>

Service-Learning Goals and Objectives:

USI Objective: Enhanced Learning through Disciplined Reflection. (1) You will learn how to navigate the IRB process; (2) You will develop a working knowledge of professional ethics; (3) You will be able to design and implement a survey instrument; (4) You will be able to use SPSS or Excel to organize survey data; (5) You will be able to synthesis data into a research presentation.

USI Objective: Enhanced Civic and Democratic Engagement. As a part of this project, you will have a chance to work as “contractors” for Evansville METS. This will give you a greater understanding of politics, public policy, and public administration at the local level. You will also be making policy recommendations based on the data that you have collected.

USI Objective: Greater Comfort/Skill in Working with Diverse Groups and Environments. As a part of this

project, you will be working with individuals from diverse racial, cultural, and socioeconomic backgrounds. This is an excellent way to develop your professional skills for future work in government, campaigns, or not-for-profit organizations.

Project Scope: The City of Evansville, through the Metropolitan Evansville Transit System (METS) provides public transportation throughout Evansville. The last formal efficiency study of the system was conducted 10 years ago. With the growth of the city over the past 10 years and shifts in demographics, a new study is warranted. USI proposes to provide an economic analysis with potential opportunities for cost reductions and an efficiency study of the current routing system.

Overview of Phase 2: The second phase of the project will be to determine ridership per route and passenger usage at specific bus stops. Data used in this phase will be provided by METS and/or through actual ridership data generated directly through observation by USI students. USI students will also develop a survey that will be used to assess rider needs.

The second phase of this project will also include an assessment of need for additional routes, the elimination of routes and/or the consolidation of routes based on growth and demographic shifts over the past 10 years. This will be accomplished through studying the change in demographics and interviews with large organizations in locations that are not currently on bus routes. USI will work with METS and the Mayor's office to identify organizations to survey, which may include: Grandview Towers, the new Shoe Carnival Building, and USI routes. Finally, the second phase will include a study of demand for “Park and Ride” programs.

APPENDIX B. WEBSITE CRITIQUE ASSIGNMENT

METS Website Critique Assignment

Value: 10 participation points

Due: Wednesday, September 10 @ the beginning of class

This semester, we will be completing a survey project for Evansville METS. As a part of learning about the METS bus system, you are required to write a critique of the METS website. The website can be found at: <http://www.evansvillemets.com/>.

The critique should be 600 to 800 words in length. It should be written in paragraph format. The paper should be double-spaced. I prefer 12 point Times New Roman font (i.e., this font).

The critique should focus on the following questions:

1. Is the website easy to navigate? Why or why not?

2. Can you find the information you would need to ride the bus? Explain.
3. Is the website readable? If not, what would make it more readable?
4. Are the route maps good? Bad? Explain.
5. If you were in charge of METS, what improvements or changes would you make to the website? Explain in detail.

APPENDIX C. GUIDELINES FOR SURVEY COLLECTION, CENSUS COUNTS, AND EMPIRICAL OBSERVATIONS

METS PROJECT: Surveys & Census Counts

Surveys: Each student must complete 20 surveys to receive credit for this assignment. Extra credit is available: 1 point for each survey over 20, up to 10 bonus points. You must sign up for two survey shifts. Each shift is two hours long. Shifts are available on Monday, Tuesday, and Wednesday. Monday and Tuesday shifts will be at the Downtown Transfer Station. Wednesday shifts will be at the Lawndale Transfer Station. You may do both of your shifts on the same day. In order to receive credit for your surveys: (1) Write your name on the back of the survey; (2) Number each survey (1, 2 ... 20); (3) Put the surveys in numerical order (so I can check them); and (4) Turn them in to me on Monday, November 3.

Census Counts and Empirical Observations: There are 15 main bus routes in Evansville. You will be divided up into teams of 2-3 people. Each team must ride their route at least three times during the week of October 27. You must ride the route at different times of the day: (1) Morning, (2) Mid-day; and (3) Evening “rush” hour. You can do these all on the same day or on different days. You must cover the whole route. The rides must be completed during a weekday (not Saturday). For each trip, you must fill out an empirical observation form and a census form. The empirical observation form covers cleanliness, bus driver behavior, etc. For the census: count the number of people getting on and off the bus. These forms will be on Blackboard by Monday, October 27. You are responsible for printing out your forms from BB. You must staple the cover sheet to the census count before you turn it in. **NOTE: We are in the process of finding out if you can ride the bus with your USI student ID. If this is not possible, I will have tokens available for you starting on Wednesday, October 29.**

Night Routes: During the week of November 3, you will be able to ride the night buses for extra credit. I will give you the opportunity to sign up for these routes on Monday, November 3.

Saturday Routes: You will also be able to ride the Saturday buses for extra credit. I will have more details on Monday, November 3.

APPENDIX D. RESEARCH JOURNAL

Research Journal Guidelines

Value: 100 points

Formatting Guidelines: Your journal should be typed. Please use 1 inch margins and double space your entries. Use professional language and avoid typographical errors.

Entries: The journal should include six entries. Each entry should be at least 1 full page long. The entries should be reflective. I want to know what you learned by doing each step of the project. This can include academic lessons, life lessons, and/or professional lessons. **In reality, most entries will be more than 1 page long. That’s okay. Just don’t make the whole journal longer than 20 pages.**

Topics: You will need to write on each of the six topics listed below. Please note that the last topic has been changed because we have dropped the research presentation: (1) A reflective entry that discusses the process of writing the survey; (2) A reflective entry that discusses the administration of the pilot survey; (3) A reflective entry that discusses the administration of the “real” survey; (4) A reflective entry that talks about the empirical observations on the bus; (5) A reflective entry that talks about dealing with data (i.e., data entry & number crunching); (6) **An overall entry that talks about the project in its entirety – what you liked, what you would have done differently, what we should have added, etc.**

How to Cite: You should try to link the lessons you learned back to the readings and the lectures. You can cite the lectures by using the following (Class Lecture, Date) or (Class Lecture, Lecture Number as Indicated on the Slide Show). You can cite the textbook and the METS website in APA format. If you want to use outside sources, that’s okay too – just be sure to cite them in APA format.

Grading Notes and Rubric: Each entry is worth 15 points (a total of 90 points). The last 10 points are for professionalism (grammar, spelling, typos, etc.) If you did not participate in a segment of the project (and yes, I did keep track), you cannot write the journal entry for that section.

APPENDIX E. STUDENT FEEDBACK SURVEY

Your participation on this survey is completely voluntary. You should only answer the questions that you chose. You should not put your name on this form and your personal information will not be made public.

