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Kathryn E. Dewsbury-White  
*Ingham Intermediate School District*

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# Service-Learning Project Models and Subject Matter Achievement of Middle School Students

Kathryn E. Dewsbury-White, Ph.D.

Director of Community Development,  
Ingham Intermediate School District  
Mason, Michigan USA

National Information Center  
for Service Learning  
1954 Buford Ave, Room R290  
St. Paul, MN 55108-6197



Former State Representative Hollister role playing with a middle school student.

## Evolution of the Study

### *Personal*

Many of the experiences that occurred in an educational context, sometimes by design and more often by accident, equaled turning points in my development. I learn best by *doing*; and, I learn the most important things I know, by *doing*. Most of my *learning by doing* happened as a result of being a part of performing arts groups or involvement in student government, or as a young employee in various jobs.

When it became my time to be a teacher I looked for ways to help students learn by doing. In 1985 when my American Government class wanted to know why our country was celebrating the ten year anniversary of Viet Nam (considering their interpretation of world events). This curiosity resulted in one of those rare moments of poetry a teacher occasionally creates for her/his students; a former Viet Nam vet and friend of mine, consented to spend time with these young adults openly reflecting on his role in the war for the first time since he returned home fifteen years earlier.

As a teacher I came to know that learning by doing requires helping kids to use primary source material, rigorously working to see that your outcomes are clearly defined and your assessments exist before you start because it is easy to become derailed, and having the ability to construct meaning from events that, are unplanned, or occupy a larger place in a child's mind than expected. Now I am a developer of curriculum. And the good news and often frightening reality is that I know it is a great

privilege to have a job that provides access to hundreds of teachers and administrators with whom I might share my ideas. In this job, the challenge isn't finding the good idea, it is helping to find a way to institutionalize the idea,

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often in a place where change occurs slowly and inconsistently.

### *Professional*

When a teacher called our Intermediate School District a few years ago looking for some help to further develop their Teacher As Counselor system, I was pleased to be invited to the building and grateful for the opportunity to try a school-wide service project. This suburban district with about 500 students ages 11-14 was in transition from a junior high school to a middle school.

One of the changes underway was carving out a piece of each day when the same 20 kids would meet with the same teacher for each of their years of middle school. This 20 minute period, coined, *Prime Time*, was to serve as a home base for kids as they maneuvered the complexities of a schedule that included daily class changes and no one distinguishable cohort of classmates, as in elementary school. Over a five day week, *Prime Time* would be divided into school business, study, activity and recreational reading days.

When *Prime Time* was being developed a small majority of staff members indicated they wouldn't object appreciably to engaging in community service for some limited number of the *Prime Time* activity days. Thus, a school wide service project was born. In its first year, the service project's aim was to supply the local church with food stuffs ample enough for every Thanksgiving basket needed in the community. Another objective was help the kids understand that they were involved in a food

drive because of a complex social problem not because the eighth graders should demonstrate more spirit than the sixth and seventh graders by constructing a fifteen foot wall of pantry discards in the gymnasium.

The first year service project included: 1) lessons on the social issue of hunger, 2) pre and post inventories that assessed a little subject matter knowledge and student attitudes about service, 3) some role playing, and 4) voluntary off campus service visits to food pantries, community kitchens and the food bank. The teacher in charge of orchestrating the service project, and I, evaluated Year 1. Overall we were pleased. The project had been a lot of work; however, we thought we had met our academic and community goals and had some ideas about what we would do differently next year.

The second year looked much like the first year except we asked teachers to volunteer to integrate the subject matter lessons into their academic courses instead of the

#### - Design -

The study population comprised 524 public middle school students in a suburban Class B district in central Michigan. The sample included 438 students who completed a pre inventory, 403 students who completed a post inventory, 22 students interviewed by the researcher and 63 students who elected to participate in off-campus service visits. Two slightly different models of service-learning instruction were studied in an effort to identify differences in subject-matter achievement and variables that might contribute to the differences. One model of instruction was termed content-integrated, the other model was called isolated. For the content integrated model, three sixth grade teachers (volunteers) one math, one science and one social studies delivered instruction that did two things 1) committed to implement the instruction that all teachers were expected to implement within the context of their *Prime Time* classrooms, and 2) based on a set of objectives provided by the researcher, teach two or three lessons within the context of their subject-area classes on the social issue under investigation (hunger) in the service-learning project. A locally developed instrument was used to measure (a) subject-matter achievement, (b) number of extracurricular activities students participated in, (c) students' involvement in the food drive, (d) students' exposure to media information, and (e) which activities related to the food drive were most meaningful to the students. Interviews were conducted with students to gather data to support or contradict the inventory data.

The pre and post inventories were designed to measure: 1) a total knowledge or subject matter score on the social issue of hunger (pre and post); 2) a total activity score based on the student's self-disclosure of the number and types of in-school and out-of-school activities he or she participate in (post); 3) a total involvement score that notes the degree to which the student became involved in the service-learning project (post); and, 4) a total awareness score based on the student's self-disclosure of which sources of information outside of school, such as magazines, newspapers, and television, contribute to his or her understanding of social issues (post).

Results on the pre and post inventories were not compared to one another except with regard to the mean scores for the total knowledge score portion of the inventories. The scores on the post inventories were examined by grade level, by gender and by virtue of whether or not students participated in a service visit.

The Pearson product moment correlation coefficient was used to analyze the inventory data. This statistical test was selected to examine relationships among the type of instruction received, gender, grades earned in school, participation in the service visit and the four scores listed above (as delineated on the inventories) knowledge, activity, involvement and awareness. Although a correlation does not necessarily mean a causal relationship exists, correlations may be helpful in identifying causal relationships for further study. This is why I likened this study to one's first European vacation.

*Prime Time* class period. We received no serious takers and realized our curriculum design had not provided for staff development on the topic of service.

In year three we backed up a little bit and decided that through a formal study we would demonstrate to staff the academic and affective benefits of service for stu-

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*In its first year, the service project's aim was ... to help the kids understand that they were involved in a food drive because of a complex social problem*

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dents. Armed with positive data we would approach them in successive years with convincing and credible invitations to participate in staff development that would enable them to be effective deliverers of learning by doing, through service, in an academic context.

We really did the study because I needed a topic for my dissertation and I knew I would only complete the dissertation if I studied something that I thought was worthwhile and important. I do still hope that we will take what we learned from the formal study and create a special invitation to the staff to participate in professional development that will potentially help them be as excited and touched by children as we were when we observed them learning some of life's big lessons in the context of a set of circumstances we constructed.

## **What We Studied**

### *Purpose: What We Wanted to Know*

The dissertation I entitled, *The Relationship of Service-Learning Project Models to the Subject Matter Achievement of Middle School Students* was akin to my first visit to Europe - I went home knowing what I needed to go back to see. I proclaimed the purpose of the study as follows:

*Investigate the model of instruction middle school students received through a service-learning project and students' understanding of the issue being studied.*

We wanted to know if kids who received instruction in their academic classes and kids who participated in service visits understood the social problem better than kids who hadn't had either or both of those experiences.

*Determine whether certain variables were related to students' understanding of the social issue being studied.* We wanted to know if other factors we had no control over i.e., student's age, gender, GPA, propensity to be involved in things, exposure to current events in their home -- had as much or more to do with how much kids seemed to understand the social problem -- as did the model of instruction we delivered.

*Learn which instructional components of the project the students considered most meaningful.* In other words, of all we did, from which instructional activities did kids learn the most.

Conservatively, what this study can do for the teachers from the sample school is to focus their activity on instructional practices that appear to achieve desired affective and academic goals for middle school students.. Likewise students self-disclosed reports about which instructional components were most meaningful should tell teachers which elements to keep in their design for which grade levels.

### *Conclusions: or What We Found Out or Confirmed, That's Worth Mentioning*

- Q. *Did students who participated in service visits score better on the test than kids who did not participate in service visits?*
- A. The data did not conclusively suggest that service visits alone resulted in higher test score, but the interview data from the kids who participated in service visits suggests their understanding of the issue is more sophisticated. They offered more cause and effect answers. This includes more sophisticated answers from sixth graders versus eighth graders too.
- Q. *Did the model of instruction influence how much the student became involved in the food drive?*
- A. This study did not clearly suggest that involvement in the food drive was effected by the student's age, grade level, gender or concern for their reputation. There also wasn't enough evidence to discount that the content-integrated model of instruction may

effect level of involvement in the food drive. When interviewed several students mentioned the content-integrated teacher's personal examples of involvement influenced their behavior.

*Q. Aside from the model of instruction do things like your grade in school, gender and GPA, affect your test score?*

A. Neither gender nor age seem to have any bearing on subject matter achievement and as expected GPA did seem to influence subject matter achievement. Most important, recipients of the content-integrated model of instruction significantly outscored their isolated model counterparts, who were by the way older.

*Q. Do kids who tend to join things score higher on the test?*

A. No, but kids who were involved in extra-curricular activities tended to involve themselves in the food drive more. Additionally, the kids interviewed were evenly split on whether or not they believed it is individuals or groups who create change.

*Q. Does exposure to current events appear to influence the students score on the test?*

A. A student's amount of exposure to current events did not appear to appreciably influence their understanding of the social issue. However, over 50% of students interviewed said they were more interested in the news as a result of the service project.

*Q. Of the different instructional components, which meant the most to the students?*

A. The majority of students in the study valued the activity-based instructional components more than the written instructional components. And of the activity-based components, those that resulted in something another person could use or benefit from were valued most. Finally, the interviews indicate kids appreciate the opportunity to have a good time while working and or delivering a service. The students said – if we can be useful and have a good time while being useful, that is our preference.

## Follow Up Work: or What's Next?

I hope that in the district that served as the study's sample, we can pursue discussion with teachers and parents about —

-teaching kids some “be likes” is a valid and necessary part of a public education in a democracy

-experiential or learning by doing can be assessed

-learning by doing, particularly through service, can do double duty by helping students better understand some existing content or subject matter knowledge.

(disclaimer - the author knows that she conducted a descriptive piece of research and utilized correlational statistics for part of her analyses of data, the “non technical” language in this article may suggest that she believes she used inferential statistics, she knows better).

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*Most important, recipients of the content-integrated model of instruction significantly outscored their isolated model counterparts, who were by the way older.*

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*Implications for Practice: or What I  
Might do the Same or Differently in  
the Classroom*

- DO** Provide opportunities and encourage students to participate in service when your instructional aim is to help students understand complex social issues.
- DO** Provide a personal model of involvement in the community for students to observe. Demonstrate what Tocqueville and later Bellah, call -- habits of the heart -- family and community traditions of local political participation that sustain, a person, a community, and a nation.
- DO** Integrate subject matter information related to service and social issues into existing academic classes; and better yet, get several colleagues with varying subject matter responsibilities to share the duty of teaching to a common set of objectives.
- DO** Consider mixing a certain number of student "joiners" into any group providing service. fifty percent of the 11-14 year olds interviewed needed to see that control over action begins with one person, yourself, and then spreads throughout the group.
- DO** Consider enriching the classroom with relevant media on the social issue being studied. It would be particularly worthwhile if the teacher chose to utilize the media to cultivate public judgement, negotiation, conflict resolution and personal accountability -- political skills that are not "givens" as a result of service-learning experiences.
- DO** Construct the assessments so that they are authentic and result in some product someone other than the student benefits from and appreciates. See to it that students have the opportunity to realize the results and effect of their work.
- DO** Try to make the experience somewhat enjoyable or fun. Kids told us -- it doesn't have to hurt to be good for us.

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