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CONNECTING STUDENTS TO THE REAL WORLD: DEVELOPING GIFTED BEHAVIORS THROUGH SERVICE LEARNING

MICAH N. BRUCE-DAVIS AND JACLYN M. CHANCEY

University of Connecticut

Learning in today's classrooms can be disconnected from students' real world experiences. Providing students the opportunity to address real-world problems may provide avenues for students to engage in their communities while developing academic skills and knowledge. Additionally, for students whose interests are piqued by the nature of their community's problems, these activities have the potential to offer students meaningful, motivating work in a supportive environment. This article explores how providing students with interest-based service-learning opportunities may help them develop and demonstrate gifted behaviors. In addition, methods for integrating student interests and service-learning projects are presented. © 2012 Wiley Periodicals, Inc.

Teachers often expect gifted students to consistently perform at high levels in the classroom. However, due to a variety of factors, such as disconnection from the curriculum or negative attitudes toward school, this may not happen (Reis & McCoach, 2000). In recent years, service learning has been explored as a way to provide students the opportunity to connect with the larger world while simultaneously engaging in academic work (Billing, 2011; Spring, Grimm, & Dietz, 2008). Along with increased research and planning, an emphasis on reflection or analysis of the experience, and demonstration and celebration of what has been accomplished, an explicit connection with academic content areas distinguishes service learning from community service (Billing, 2011; Spring et al., 2008). A community service project might entail students volunteering to bring food for a canned food drive; in a service-learning project, students might first investigate nutritional values of canned goods and develop a list of "healthy foods" to donate. After students have completed the project, reflection may lead them to analyze the accessibility of healthy foods in their community and possibly develop further action plans. Opportunities for service learning are present in a large minority of schools; 24% of students in kindergarten through 12th grade and specifically 35% of secondary students engaged in service-learning projects in 2008 (Spring et al., 2008).

Interest-based service-learning projects have the potential to address factors leading to underachievement and set the stage for gifted behaviors. This article will first explore how these projects may affect students, particularly those who may be considered gifted underachievers, and will give examples of models and programs that teachers, counselors, and others may use to implement service learning in their schools.

Academic Gains Through Service Learning

Academic gains in the form of grades (Conrad & Hedin, 1991; Conway, Amel, & Gerwien, 2009; Davila & Mora, 2007; Schmidt, Shumfow, & Kackar, 2007), improved attendance (Smith, Davis, & Bhomik, 2010), and a decrease in behavior problems (Schmidt et al., 2007) have been documented in conjunction with student participation in service-learning projects. In a meta-analysis on the effects of service learning with students of all ages (including college students and adult learners), Conway et al. (2009) found a moderate effect size for academic outcomes, including knowledge, grades, cognitive processes, and academic motivation and attitudes. To further quantify potential benefits, Schmidt et al. (2007) found that participation in service of any kind was associated with

Correspondence to: Micah Bruce-Davis, 2131 Hillside Road, Unit 3007, Storrs, CT 06269-3007. E-mail: micah.bruce-davis@uconn.edu

a 12% increase in student grades. In another study, urban high school students who were civically engaged made greater academic progress and were more likely to graduate from college than were those who did not participate in service learning (Davilla & Mora, 2007), a finding that led the authors to conclude that service learning has the potential to be a human capital investment. Finally, Scales, Blyth, Berkas, and Kielsmeier (2000) found that students who spent time reflecting on their service-learning experiences reported working harder for good grades, thought of school as a place to develop personally, and "decreased less than did other students in their commitment to classwork" (p. 350) over the course of a year.

Development of 21st Century Skills

Academic gains beyond grade-point average and behavior outcomes can also be seen through the development of 21st century skills (Larson, Walker, Pearce, 2005; Smith et al., 2010; Terry, 2008). The Partnership for 21st Century Skills defines several content-specific student outcomes, including an understanding of civic literacy, as well as other important skills, such as critical thinking, collaboration, communication, flexibility, adaptability, initiative, self-direction, social and cross cultural skills, productivity, accountability, and leadership (P21 Framework Definitions, 2009). Sixteen states are working with the Partnership for 21st Century Skills to integrate these skills into instruction ("21st Century States," 2007). Service-learning experiences provide students with the opportunities to develop these skills through their incorporation of student planning, action, reflection, and demonstration. Hamilton and Fenzel (1988) found that participants in service projects gained skills that were connected to the specific type of service project they were completing, including self-direction, planning (for a construction project), and public speaking. Larson et al. (2005) documented participants in student-driven community service-learning projects who had to develop decision-making, leadership, planning, and high-level critical thinking skills. Terry (2008) reported on gifted student involvement in several service-learning projects. In one project, students created a "state approved Solid Waste Management Plan for their county" (p. 47). The project lasted 3 years and required students to develop leadership skills, cooperation, and collaboration. Service-learning projects often require communicating ideas to others, including adults (Smith et al, 2010; Terry, 2008). For example, Smith et al. (2010) engaged high-school students in a 1-year project that required the development of research skills and development of an action plan. The students presented a proposal to the administration at the school and were praised by the administration for their professionalism, for the quality of the information presented, and for thoroughly answering questions. Students engaged in quality service-learning projects develop a variety of skills that will help them well beyond the four walls of the typical schools.

Giftedness, Gifted Behaviors, and Underachievement

Historically, giftedness has been connected with IQ measures (Feldhusen, 2005). However, over the past 30 years, conceptions of giftedness have become more diverse, and currently, there is no standard definition of giftedness that is universally accepted in the field of gifted education (Sternberg & Davidson, 2005). This article will use Renzulli's (1978) conception as the framework for defining giftedness. One important element of Renzulli's work is that he defines giftedness through gifted behaviors (e.g., reading at advanced levels and demonstrating high levels of communication skills). His focus on behavior versus intellect alone provides a link to the behaviors expected in service learning. Renzulli and Reis (1997) summarized the major elements of gifted behavior with the following statement:

> Gifted behavior consists of behaviors that reflect an interaction among three basic clusters of human traits—above average ability, high levels of task commitment, and high levels of creativity. Individuals

> capable of developing gifted behaviors are those possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. (p. 8)

Certain people demonstrate those gifted behaviors, at certain times and under certain circumstances (Renzulli & Reis, 1997). Unless otherwise specified, the term "gifted" is used in this article to describe those individuals who have the *potential* to develop or demonstrate gifted behaviors.

Renzulli (2005) advocated the provision of gifted services so that young people have opportunities for self-fulfillment, to increase the world's reservoir of knowledge producers, and to encourage the development of leaders who are "committed to making the world a better place" (p. 270). A supportive environment where students feel connected to either the content or a particular person can facilitate the development of gifted behaviors (Baum, Renzulli, & Hébert, 1995; Emerick 1992; Hébert & Olenchak, 2000; Moore, Ford, & Milner, 2005). When gifted students feel disconnected from the goals of the school or classroom, they are likely to underachieve and fail to demonstrate gifted behaviors. Although gifted students underachieve for a variety of reasons, some contributing factors of particular relevance to this article include a lack of challenge or relevance in the regular curriculum, negative attitudes toward school and teachers, and different values given to academic achievement goals (Baum et al., 1995; McCoach & Siegle, 2003; Reis & McCoach, 2000).

Culture, ethnicity, and gender can also play a role in the development of gifted behaviors. For example, African American students may have a strong need for social relevance and connection, and not being able to express concerns about social justice issues can lead to disconnect from school (Ford, 1995). Negative peer pressure and concerns about isolating themselves from other African American students have been identified as barriers preventing gifted African American students from participating in gifted programs (Grantham & Ford, 2003). Gifted girls and women also may be particularly susceptible to putting others' desires and needs above their own, displaying a care orientation as opposed to an academic achievement orientation (Reis & Moon, 2002). Thus, service-learning programs and projects that affect factors such as curricular relevance, social connections, attitudes toward school, and academic goals may help students develop and display gifted behaviors and/or reverse patterns of underachievement.

The Role of Interest in Developing Gifted Behaviors

Under Renzulli's (1978) conception of giftedness, gifted behaviors are brought to bear on a particular task or problem. The high levels of task commitment characteristic of gifted behaviors require intense interest (Reis & Renzulli, 2009; Renzulli, 2005). The Schoolwide Enrichment Model and the underlying Enrichment Triad Model emphasize finding those areas of interest to create opportunities for the manifestation of gifted behaviors (Reis & Renzulli, 2009; Renzulli & Reis, 1997). These models culminate in independent projects based on *student choice* and the creation of authentic products, both of which are precursors to student engagement in school (Fredricks, Blumenfeld, & Paris, 2004).

Students who otherwise display behaviors related to underachievement may keep themselves engaged through strong interests and self-selected goals—goals that may include academic performance (Hébert & Schreiber, 2010). Student interests also appear to be useful when attempting to reverse underachievement (Emerick, 1992; Hébert & Olenchak, 2000). This was strongly demonstrated by a study conducted by Baum et al. (1995), in which 17 underachieving gifted students were encouraged to complete independent investigations, characterized by student interest, choice, and the creation of authentic products. Of the 17 participants, 15 completed their projects, and all 15 showed overall academic improvement (as measured by grades, test scores, and/or academic behaviors) to the point that they were no longer considered underachievers 2 years after the study began.

These interventions could encompass many types of projects, but because service-learning projects involve substantial aspects of student choice and interest, they may be particularly effective in reversing underachievement and thereby motivating students to develop positive skills, such as task commitment. For example, a multiple-year program in Hartford, CT, involved urban youth in investigating and implementing solutions to problems in their communities (Berg, Coman, & Schensul, 2009). Each cohort consisted of approximately 35 high-school students who worked together to select a single problem of interest. In the study, students who started the program with a grade of C or lower graduated at a rate of 85%, in a city where the overall graduation rate is less than 50%. The incorporation of student interest and choice in service-learning projects may help give students a sense of ownership, which in turn magnifies the positive effects of these programs (Larson et al., 2005).

Social and Psychological Benefits of Interest-Based Service Learning

Engaging students in interest-based service-learning projects can increase their sense of belonging as well as affect their academic and long-term goals. A sense of belonging to the school community is linked to positive attitudes toward school, increased academic effort and participation, intrinsic motivation, and self-regulation; these effects in turn can translate to higher levels of academic achievement (Osterman, 2000). Service learning may increase a broad sense of connection when students become more aware of larger social or moral issues (Dawes & Larson, 2011) or develop a greater sense of concern for the welfare of other people (Scales et al., 2000). However, students also benefit from specific relationships with other individuals involved in the project, both adults and peers. Osterman (2000) emphasized the role that teachers and other adults can play in connecting students with the school, and Emerick (1992) found that caring teachers with high expectations were critical in helping gifted students reverse patterns of underachievement. Teachers or other mentors who provide personalized, positive support are also important to the success of strength- and interest-based interventions for underachievement (Baum et al., 1995; Hébert & Olenchak, 2000). In service-learning contexts, adult mentors in active support roles (Berg et al., 2009; Larson et al., 2005) who develop relationships built on trust (Smith et al., 2010) are critical in helping students to succeed in their projects. Interest-based projects also provide ways for students to connect with peers who share these interests (Baum et al., 1995) and develop strong relationships as part of project teams (Dawes & Larson, 2011; Smith et al., 2010). Students without reciprocal peer relationships generally report being disengaged from the school community (Osterman, 2000).

Baum et al. (1995) documented a few instances where an interest-based project led students to change the peer group with which they identified to one that was more engaged with school. Because people form their own aspirations in part by comparing themselves with their peers, changing that social comparison group to one with higher academic aspirations is one way to assist a student in setting more challenging academic goals (Quaglia & Cobb, 1996). Aspirations are also built on previous experiences, particularly those that establish greater senses of self-efficacy (Quaglia & Cobb, 1996). Service-learning projects can increase participating students' self-efficacy surrounding their abilities to help others (Scales et al., 2000) and create change in their environments (Smith et al., 2010) as well as increase their general sense of competence (Dawes & Larson, 2011). Students may form personal connections to the goals of the specific service-learning program (Dawes & Larson, 2011) and develop long-term goals for professional careers based on the topic of the program or the skills they used (Smith et al., 2010). Personal goals with academic components can help students avoid or reverse patterns of underachievement (Emerick, 1992; Hébert & Schreiber, 2010). Thus, the social and psychological benefits of interest-based service-learning projects may also serve to reinforce the projects' direct academic benefits.

Implementing Interest-Based Service-Learning Projects

When students' interests and concerns are taken into account as service-learning projects are developed, the probability of achieving academic, social, and psychological gains is increased. In this section, possible ways to develop gifted behaviors through interest-based service-learning projects are presented.

Enrichment Triad Model

The Enrichment Triad Model is a popular approach to gifted education that incorporates interest-based learning (Renzulli & Reis, 1997). The Enrichment Triad Model consists of three levels of enrichment activity. In the first level, or Type I enrichment, all students are exposed to interesting people, ideas, and concepts that are outside of the standard curriculum. Type II enrichment teaches skills such as creative thinking, problem solving, critical thinking, and communication, and may be offered to all students or smaller groups. Type III projects are student-selected investigations of real problems. Type I activities may inspire students to use or develop Type II skills to complete a Type III project. Additionally, once students are engaged in a Type III project, they may realize the need for further development of Type II skills. Throughout the process, Renzulli points out the importance of students acting as practicing professionals.

When applying the Enrichment Triad Model to a service-learning framework, Type I enrichment could consist of a guest speaker or a video focusing on community activism. Many such speakers can be found on TED.com; teachers may find Majora Carter's talk on urban renewal, "Greening the Ghetto," to be applicable (Carter, 2006). Students who show great interest in a featured speaker or video may be encouraged to consider working on a service-learning project of the students' choosing. This service-learning project would be considered Type III enrichment as long as the project has an authentic product or outcome that will be presented to a real audience. Specific Type II enrichment activities, such as the ones described in Barbara Lewis's *The Kid's Guide to Social Action* (1991), may be incorporated depending on students' needs. Lewis provides lessons on skills such as conducting surveys or writing letters to Congress, skills that may be necessary for the successful completion of a service-learning project but are unlikely to have been taught as part of the standard curriculum.

Many students have designed and completed projects within the Enrichment Triad Model that improved the quality of life for those with less power. For example, one first-grade student began to make and sell buttons with sayings on them. Then, he used the profits to purchase mittens for newly arrived immigrants moving from a warm climate to the cold New England air (Renzulli, 2009). Another student noticed a younger classmate being teased, and while consoling him, discovered he had eyesight problems that prevented him from being able to read the books in the library. She rallied her friends to create books for him with large type (Renzulli, 2002).

Other Methods of Incorporating Service Learning

Beyond the field of gifted education, various classrooms and programs provide inspiration for possible applications of interest-based service learning (e.g., Collatos, Morrell, Nuno, & Lara, 2004; Cowhey, 2006; Schensul & Berg, 2004).

Examples From the Classroom. In *Black Ants and Buddhists,* Cowhey (2006) described her Peace Classroom. Students in her first- and second-grade classrooms work to make the world a better place—everything from participating in a march, to increasing voter registration, to writing a letter of sympathy to students at a school in Beslan, Russia. Going beyond writing the standard stories typically found in elementary school curricula, students use their developing literacy skills to bring comfort to others in the world.

Collatos et al. (2004) documented the effects of Futures, a comprehensive college access program, on participating students. In addition to engaging in rigorous coursework, students in the program learned the skills of critical sociologists, conducting research related to college access for minority students, with the explicit intention of creating change through that research. One participant, Lara, noted that during his previous schooling experiences, he had tried to raise concerns related to safety and how to survive and thrive in his community. Instead of helping him deal with the complexities of his life, teachers consoled him and told him not to worry. In the Futures project, he was able to confront the issues that he had been previously told to ignore:

> For the first time, the teachers wanted to help them with the struggle, work alongside them in the battle. The adults wanted to teach and learn about the problems, to reach out to their own students and give them a better education. It was liberating to know that we were being listened to and accounted for. (p. 171)

Lara reported gaining confidence and academic self-efficacy as a result of participating in the Futures project (Collatos et al., 2004). Engaging students in service-learning projects in the classroom can motivate them to address real-world problems in a manner similar to or the same as practicing professionals while they develop both academic and 21st century skills.

Future Problem Solvers. Other programs that include a focus on influencing the greater world in their programs may be used after school or during enrichment or elective class time. Giving students the option of whether to participate in such programs allows them to exercise choice and follow their interests. Future Problem Solvers (http://www.fpspi.org/), founded in the late 1970s, asks students to explore future problems to find elegant and ethical solutions. One particular component of the program, Community Problem Solving, requires teams to define and address real-world problems (Future Problem Solving Program, 1998). The program guides teachers and facilitators through the process and engages students in the identification of a problem and development of an action plan. Students' interest in their self-selected problems contributes to the task commitment required to sustain them throughout their projects. Students have worked to save historic buildings, developed early literacy programs, and implemented interventions to prevent and solve student conflicts on their school campus (Future Problem Solving Program, 1998). Recently, an evaluation report by Treffinger, Selby, and Crumel (in press) noted that participants in the program felt they developed a vision of themselves that included having an impact on the larger world.

Youth Participatory Action Research. Another approach to involving students in learning that is connected to community is through youth participatory action research (YPAR). YPAR involves students in social justice projects. As research projects are developed, students learn teamwork and build consensus to decide on the project theme or objective (Schensul & Berg, 2004), thus working toward a goal identified by the Partnership for 21st Century Skills (P21 Framework Definitions, 2009). Successfully completing research projects also demands advanced academic skills, such as recording and writing interviews, reviewing literature, and completing quantitative data analysis, and social skills, such as idea negotiating, developing logical arguments, and clearly communicating with a real-world audience of peers and adults (Schensul & Berg, 2004).

The combination of a self-selected topic that addresses a real-world problem for a real-world audience may promote intense motivation to develop core academic skills. For example, groups of students in Philadelphia worked with community organizers and lawyers to investigate and report on issues related to public school policies on Zero Tolerance and Pushout (another term for dropout with the connotation that some students are not perceived as desirable to the school system). One student who participated in the research and development of the Zero Tolerance report noted that the topic and the role of caring adults pushing her to succeed kept her engaged in the program (Youth United

for Change, 2011). Smith et al. (2010) advocated for professional school counselors to utilize YPAR techniques in their practice because they found student co-researchers experienced increased feelings of empowerment and connectedness. Several students who participated also recognized that they developed goals for the future—becoming interested in professional careers. Akom, Cammarota, and Ginwright (2008) documented the motivating power YPAR studies had on youth in California and Arizona. The YPAR programs gave them space to confront important issues and improve their society.

Conclusion

Not all students who are capable of demonstrating gifted behaviors do so. They may underachieve for many reasons, several of which may be addressed through interest-based service-learning opportunities. Several programs and models exist that schools may use to inspire student engagement in service learning. These projects can help develop academic skills while increasing students' connections to their communities. Service learning also makes it possible for education to go beyond basic curriculum and skills to encourage and inspire youth to become better people, to serve others when possible, and to make the world a better place.

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