

Students with Developmental Disabilities Go to College: Description of a Collaborative Transition Project on a Regular College Campus

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The existing literature on transition programs suggests that for effective transition of individuals with developmental disabilities, the programs must place emphasis on both the social and the vocational goals of these students. This article describes a pilot project that brought transitioning young adults with disabilities to a college campus for job-sampling. Seventeen high school students with developmental disabilities participated in this program and were mentored by 23 college students attending a small, private university in suburban New Jersey, some of whom were planning to become teachers. In total, students with and without disabilities spent 9 hours together. Preliminary data included university students' journals, special education students' journals, college faculty field notes, and questionnaires and anecdotal data collected from the college community and the local school district. Data indicated that this project had benefits for young adults with and without disabilities and supported the use of a community-based service-learning model. This study holds implications for prospective special education teachers and the college community.

Transition programs for older students with special needs are developed to promote the self-sufficiency and autonomy of these young adults. The focus of transition programs is on preparing students for the work setting; however, the plethora of existing literature on young adults with special needs has provided us with reasons to question the effectiveness of this process.

Wehman (1992), for example, reviewed the outcomes of youth with disabilities. Employment statistics concerning students with mental retardation indicated that of high school graduates with mild cognitive disabilities, only 44% were employed 1 to 2 years after exiting high school, and of those individuals with moderate, severe, or profound men-

tal retardation, approximately 20% were employed. In addition, 70% of the young adults with mental retardation lived with parents for several years after exiting high school, and the majority of their social activities and interpersonal relationships were passive or occurred within their own homes (Kregel, Wehman, Seyfarth, & Marshall, 1986; Wehman, 1992). Such findings are hardly a sign that our communities are preparing self-determined, well-adjusted, and mainstreamed young adults.

Over the last 10 years there has been a growing trend for students with developmental disabilities to gain functional skills in meaningful environments that encourage the transfer and retention of knowledge over time. In response to this

trend, transition programs are frequently community based and must adhere to federal mandates, such as the Americans with Disabilities Act (ADA; 1990) and Individuals with Disabilities Education Act (IDEA; 1990). While these federal laws reinforce the need to recognize individual differences, they also ensure equal access to opportunities in work, community, and recreational settings (Kiernan, 1999).

Despite the mandates, in our opinion many current transition programs still do not provide equal access and opportunity. In transition programs where the focus is on preparing students for the work setting, an opportunity for students to gain valuable social experiences with their same-aged peers is frequently lacking. In fact, the words *developmental disability* emphasize that students are likely to exhibit developmentally different behaviors from the behaviors of chronological peers, and programs for students carrying this label provide limited opportunities for interactions with chronological peers who do not carry a special education label. Consequently, students rarely practice social skills within appropriate vocational or educational contexts.

A recent survey of general and special education teachers' perceptions of special education students' transition competencies indicated that teachers see "fitting in" and developing social skills as top

transition concerns for students with disabilities (Wolfe, Boone, & Blanchett, 1998), and yet these deficient skills are the very element that limits students' integration into the social world.

Most students learn through experience, observation, modeling, role-playing, and self-regulation. Students with mental retardation need to observe skills in the social environment in order to practice socially appropriate behaviors. More important, these students need to learn to acquire and adjust skills through observation, self-regulation, practice, and problem solving (Goldstein, Kaczmarek, & English, 2002; Goldstein & Morgan, 2002; Wehmeyer, 1992). By teaching students to take the initiative, and encouraging their direct learning from the environment, we are likely to enhance choice making and self-determination, two highly valued aspects of adult status (Dolyniuk et al., 2001; Wehmeyer, 1992). On the other hand, if we do not contextualize social experiences, we run the risk of encouraging a model of learned helplessness (see Seligman, 1975), whereby experiences with repeated events that are beyond an individual's control result in motivational deficits, errors in cognition, emotional difficulties (Seligman, 1975; Wehmeyer, 1992), and, in the worst of scenarios, psychological problems and maladjustment. For example, developmental theorists like Sullivan (1953) suggested that individuals need constant social input, friendship, acceptance, and intimacy to be happy and well-adjusted (Goldstein & Morgan, 2002). Social interaction is also the basis of interpersonal understanding and facilitates mutual perspective-taking (Selman, 1980).

Knowing this, we designed the current program to provide transitioning high school students with mild to moderate cognitive delays with community-based experiences and person-centered instruction (Browder, Bambara, & Belfiore, 1997). Our intentions were not only to teach students functional skills and train them for future vocations but also, and more important, to provide students with valuable opportunities to interact with college students so that they might practice and develop appropriate social skills.

Philosophically, we believed that such a program would assist students in retaining jobs by promoting their social acceptance and encouraging perspective-taking, self-advocacy, and self-determination. We also hoped that such an experience would have benefits for the college students involved, particularly as many of them planned on becoming special education teachers.

In this article, we describe the background and goals of our project, review methodology, and address preliminary findings. The implications of this project and future collaborative service-oriented models are also discussed.

Background/History

In the fall of 2000, a professor and parent of an 18-year-old daughter with Down syndrome brought colleagues from psychology and education together to share an idea. Her daughter had been to our campus on several occasions and had even job-sampled in the university library. Her mother's main objective was to help establish a program wherein young people with mental retardation from a local high school could interact with college students on a regular basis. After all, students in general education who wish to further their education after high school often attend college. Thus, the college setting is the developmentally appropriate place for young people between the ages of 18 and 21 to mix and mingle.

Although several college campuses have learning centers for students with learning disabilities (our own campus included), we had heard of only a few programs nationally that involved young adults with severe learning disabilities in regular college activities (e.g., Curry College in Massachusetts, New York Technical Institute). Among these, a transition program in Kentucky caught our attention.

Hall, Kleinert, and Kerns (2000) described an undertaking by the Jessamine County Public School District in which community leaders, students, and parents developed a program that would ed-

ucate young adults with developmental disabilities at Asbury College. The differences between this program and other college programs for students with disabilities were, most notably, that (a) the students had developmental rather than learning disabilities and (b) the program and transition planning were developed by special educators within the local school district.

Using the Jessamine program as a preliminary model, we also decided that the needs of transitioning high school students in our program would best be met if (a) the job-skills coach at the participating high school was responsible for identifying appropriate target skills and goals for the students, and (b) psychology and education majors enrolled in a psychology course titled "Mental Retardation" mentored these students. This second factor also allowed university students, particularly the preservice teachers, a unique opportunity for an on-campus internship. In this way, we were creating mutually beneficial relationships among the school district, the students with developmental disabilities, and, ultimately, the college community.

Goals of the Project

The goals of our collaborative efforts addressed four levels of service provision:

For the students with special needs, the project would

1. teach functional skills that would enable success in the workplace and
2. allow students to practice social skills with age-level peers.

For the local school district, our efforts would provide

1. a new site for job-sampling,
2. a fresh group of peers for the students who also had a special interest in developmental disabilities, and
3. access to university faculty who were preparing future special education teachers.

For the university students, the project would allow

1. an opportunity to become more comfortable interacting with peers who have developmental disabilities,
2. education and psychology majors a chance to engage in realistic and meaningful experiences with individuals who have developmental disabilities prior to completing their degrees, and
3. education and psychology majors a chance to connect theory to practice by applying information taught in courses covering related content.

For the university faculty, staff, and community, the enterprise would provide the opportunity to

1. observe whether the university campus was a suitable place for future transition projects,
2. gather data in our courses examining differences among college students' perceptions of students with special needs and their satisfaction with such a program, and
3. gather data across campus concerning the college community's perceptions of students with special needs and their satisfaction with such a program.

Because this was a pilot program, we also anticipated that any information we gathered would be useful for the development and implementation of future programs on our university campus.

Method

Participants

Seventeen high school students with mild to moderate mental retardation between the ages of 16 and 20 years were included in this program. All students were enrolled in special education and attended a suburban public high school in New Jersey. They were coached and

mentored by 23 university students enrolled in a summer session course on mental retardation. Informed consent was obtained from the parents or guardians of the students with developmental disabilities and from the college students prior to the start of the project.

Procedure

Project activities were overseen by the professors of education and psychology and the high school teacher from the participating school district. We provided a variety of jobs on campus for the students with developmental disabilities. Task analysis for these jobs was conducted by the job coach at the high school. A regular university employee served as supervisor at each of the job sites, and university students enrolled in the psychology course "Mental Retardation" served as the mentors for the students with developmental disabilities.

The high school students arrived at the university campus by a bus provided by the school district. They visited the campus two times a week for 1.5 hours over a period of 3 weeks. In total, the students spent 9 hours on campus. During that time, they sampled the following jobs: library assistant, mailroom assistant, facilities worker, bookstore employee, snack bar worker, admissions office clerk, orientation office clerk, and continuing studies office clerk.

The university students provided support and guidance to the visiting high school students. Some were paired one-to-one while others were mentored in groups, depending on students' individual needs. The university students remained in the same job placement, while the high school students rotated for each session. In this way, all students were exposed to a variety of individuals and situations.

After each session, the university students returned to the class for a discussion of their experiences. As part of the course, they were also required to keep a journal of their experiences, and they completed questionnaires and assignments related to the transition experience.

Strategies for Program Evaluation

Corresponding to the goals of our project were four levels of program evaluation.

Students with Special Needs. With the support of the high school staff, high school students participating in the project kept journals of their work experiences. This information provided qualitative feedback concerning the nature of the job-sampling experience from the high school students' perspective.

In addition, the high school students were interviewed both pre- and postproject by their school teacher. All interviews were videotaped and evaluated for qualitative changes in responding. Students were asked the following open-ended questions:

1. What are you good at?
2. Who are your friends?
3. Tell me about your friends.
4. (Postexperience) Did you make some friends at Rider University?
5. (Postexperience) Tell me about your friends at Rider University.
6. If you could work anywhere, where would you like to work? What jobs would you like to have?
7. What would you need to learn to do that job well?

Finally, on five separate occasions, students also completed four-item surveys over the course of the job-sampling experience. Items on these surveys queried the following issues:

1. students' ability to identify job location (on a specific day),
2. students' ability to identify the university support person,
3. whether or not students enjoyed/did not enjoy the job for that day, and
4. whether or not students wanted/did not want to return to the university.

High School Staff. Over the course of the project, the high school teacher

and job coach supervised the job-sampling program. She and her classroom aide provided ongoing feedback concerning the experience; in addition, they interacted with the students when they were not at Rider University and gathered anecdotal data that broadened our insights into the efficacy of the program. Finally, after the project had ended, in order to gather additional feedback, we placed phone calls to the three high school teachers involved in the pilot project.

University Students. Information was collected from student journals, instructor field notes, transcripts of class discussions, and open-ended questionnaires that were administered both pre- and postexperience. These data were qualitatively analyzed for recurring themes and general impressions of the experience.

Three researchers evaluated the data gathered from the university students, then qualitatively analyzed them and compared them to achieve triangulation. This process yielded a measure of 71% for interrater reliability, according to a formula suggested by Miles and Huberman (1994; see Kamens, Dolyniuk & DiNardo, 2001).

University Community. Discussions with school personnel, observations, field notes, and anecdotal data allowed the psychology professor and education professor to evaluate the college campus as a suitable place for future transition projects. Furthermore, we observed changes in college students' perceptions of students with special needs by analyzing the data found in the university students' journals. Finally, we placed phone calls to university staff who served as job site supervisors and asked them to complete questionnaires concerning the experience. In total, only four out of eight questionnaires were returned to us. We also gathered, from all eight staff members, informal data via telephone about their impressions concerning the project and their experiences with individuals with disabilities.

Results

What first became apparent from the evaluation of our program was that 3 weeks yielded an immense amount of information concerning the efficacy of the program and its impact on the students with and without disabilities. We decided that each set of data warranted a separate article (see Dolyniuk et al., 2001). In this particular article, our results are combined and discussed generally, with the intent of evaluating this preliminary study. As stated earlier, we believed that any information gathered during the pilot would assist us in planning future programs on our college campus.

In general, impressions of the program were positive. For the students with special needs, the project taught functional skills in a college setting. In addition, it allowed an opportunity for them to practice social skills with age-level peers.

Survey data were gathered when the students returned to the high school after job-sampling at the university. Two students could not answer survey questions and were not included in the quantitative analysis. After the surveys were completed, the teacher, job coach, and classroom assistant condensed the information. Percentages were calculated based on a mean average of four visits, although the number of visits actually ranged between two and five.

In total, 15 students' responses were included in our quantitative analysis. Ten of 15 students could correctly identify job location 100% of the time, 2 students could identify job location 75% of the time, and 3 students could identify job location 50% of the time. When asked to identify the university support person (college student) they worked with on a particular day, only 2 students could identify the individual accurately on every occasion, 1 student could identify the individual 75% of the time, and 4 students could identify them 50% of the time. The remaining 7 students identified university students less than half of the time. When asked whether they enjoyed the job on any given day, 11 out of

15 students enjoyed the job on every occasion. All transition students said they wanted to return to our campus for future job-sampling experiences.

Anecdotal data gathered from the high school students' journals and from conversations with teachers suggested that the students enjoyed the job-sampling experience. Furthermore, each student with special needs was able to describe his or her favorite job at the university and had basic knowledge of the skills necessary to complete those jobs.

When comparing pre- and postinterview responses, few students with special needs significantly changed their responses to interview questions. The only questions that yielded notable changes were the questions concerning friends. All 18 students stated that they enjoyed interacting with the university students. However, despite their enthusiasm, only a few high school students were able to name their "friends" at Rider University.

Feedback from the participating school district was also positive. The project achieved its two main goals, in that coming to the campus provided a new site for job-sampling, as well as a new group of peers, for the high school students. Correspondence and phone conversations indicated that school personnel were interested in additional job-sampling during the upcoming academic year.

For the university students taking a course on mental retardation, this experience provided an opportunity to work with individuals carrying that label and an opportunity for introspection. It also allowed students to interact with a large group of individuals carrying similar educational labels but varying clinical diagnoses (e.g., Fragile X syndrome, Down syndrome, Prader-Willi syndrome, Williams syndrome, autism, Asperger syndrome).

Several themes emerged from the qualitative data, including changes in feelings and perspectives concerning individuals with special needs, confirmation of students' desires to become teachers, and a greater awareness of how individuals with mental retardation are

treated. In some cases, students even generalized their experience to other aspects of daily life. For example, one student reflected at length on her observation of a young family with a child with developmental disabilities (Kamens et al., 2001). An analysis of class journals, exam question responses, and anecdotal data indicated that the students developed both academically and emotionally over the course of the experience. One particular college student summarized the experience nicely:

While we learned a lot of book knowledge from the class, it was not until we had this field experience that the pieces started to come together. . . . Once we worked hands-on . . . we were able to say, "Ah, there's that condition and characteristic we learned about." Not only did this program help us make the connection between facts and people, but I think it also taught life experience. . . . Those students who had never had experience with individuals with MR have learned tolerance and compassion. As we continue to discuss in class, it is interesting to see the perspectives of classmates change. Those who were not excited about the experience when we discussed it on the first day now look forward to spending time with the students. In addition, I think as a whole we have all become more defensive of criticism toward individuals with MR, myself included.

The final level of program evaluation examined benefits to the university community. The response of the university community was generally positive. Staff involved in the project welcomed the students participating in job-sampling. Questionnaire responses provided further insights into the college community's beliefs concerning the abilities of individuals with developmental disabilities. One campus worker described the experience in the following way:

I feel the job-sampling was a very good idea. I also feel it was a very positive experience for the students as well as the people in the different offices at Rider University. The disabled students were able to see different job opportunities, a chance to meet new people, and also to allow them the freedom to choose an occupation they

like by trying it. As for the workers at Rider, it gave us a chance to interact with the students and to see the abilities these students do have.

Taken together, our findings were consistent with those of studies showing the benefits to community-based service-learning (see Sileo, Prater, Luckner, Rhine, & Rude, 1998).

Discussion

When we began this study, we were looking for changes in social skills, self-advocacy, and self-determination in the transitioning students with developmental disabilities. What we noted, however, was optimism, and a willingness to regularly come to the university campus, rather than changes in the student's levels of social knowledge or self-advocacy. In our opinion, this finding is noteworthy and represents the basis for feeling comfortable in an included college setting.

On the whole, we view the results of this preliminary project as having benefits for individuals with and without disabilities. Most notably, this project challenges us to examine new ways to implement inclusion opportunities on our own campus and in other local settings.

No discussion of these data would be complete without a discussion of their limitations. This preliminary study directed our attention to three main considerations. First, there are logistical difficulties in planning such a program that require absolute cooperation among all parties involved at all sites considered. Second, we recognize that this type of experiential learning takes away from traditional modes of teaching and requires both college faculty and high school teachers to significantly modify and rethink their curricula for the term in question.

Third, and perhaps most notable, many of the high school students could not name or describe their "friends" at the university following this experience. Because one main objective of our program was to encourage social interac-

tions between students with and without disabilities, this finding concerned us. There may be many reasons for the students' difficulty in describing their peers at the university. Among these, we have considered the possibility that the students with special needs simply did not perceive the college students as friends. Under the circumstances this is appropriate, because the students with developmental disabilities did not actually spend a considerable amount of time with individual college students. Another consideration is that these students have obvious memory and processing difficulties. Because this second explanation suggests a deficit in the students themselves, we prefer to evaluate this finding from a more positive, transactional perspective and provide longer and more meaningful experiences for the high school students in the future. Transactional models are currently the practice in many clinical and educational fields and emphasize the reciprocal ecological forces that shape learning and development. Such a view of development fits nicely with a community-based service-learning philosophy.

We have already started bringing the same students back to campus for additional job-sampling and recreational activities over the coming academic year. In addition, since the start of this program, the third author, who was the impetus for this preliminary project, has started a unified Special Olympics bowling team. As a result, many of the college students involved in last summer's program now regularly bowl with students from the school district. The possibility of a summer recreational camp in the college dormitory is currently also being considered. We believe that any of the forementioned "college" experiences will continue to broaden our understanding of learners with special needs and how they learn within a college community. At the same time, the experiences of the members of our college community have been enriched and diversified.

Providing service-learning and community outreach experiences is in line with the university's current educational philosophy. Recently, other campus-wide

programs have also attempted to bring learning out of the classroom and into the community. Such programs not only enrich learners' knowledge bases in a particular content area but also allow university educators to examine the best ways to convey course content.

Our current study supports the benefits of experiential learning where learners are in touch with subject matter (Sileo et al., 1998), and this, in our view, was a significant benefit for our university community and its current methods of teaching. As educators who are preparing future practitioners, we had always been aware of the benefits of cooperative learning (which are also heavily cited in the educational literature). However, after this experience, we learned firsthand the importance of providing university students with opportunities to interact with course content. Given that the "content" of our courses concerns individuals, we were providing our students with a unique opportunity to recognize that individuals with disabilities are a heterogeneous group, with a broad array of needs and characteristics. Immersion in this diversity allowed students to realize that different strategies and methods must be used with different students carrying the same clinical label. More important, it allowed us to evaluate two different groups of young people learning about each other from each other. Concurrently, we learned from them.

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AUTHORS' NOTE

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