PATHWAYS TO EMPLOYMENT

E-Connect E-Mentoring
2010-2011
Evaluation Report

The Evaluation Group at ICI
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# Table of Contents

Introduction ........................................................................................................................................... 3
  What is E-Connect? ............................................................................................................................ 3

Key Findings and Recommendations ................................................................................................. 5

Evaluation Process ............................................................................................................................. 6

Project Sites .......................................................................................................................................... 8

Evaluation Findings .......................................................................................................................... 10
  Implementing E-Connect .................................................................................................................... 10
  Mentor-Mentee Relationships ........................................................................................................... 21
  Student Experiences with E-Connect ............................................................................................... 25
  Improving E-Connect ....................................................................................................................... 34
  Sustainability and Future Activities ................................................................................................. 41

Discussion ............................................................................................................................................ 43

Appendices
  A: Mentor Survey Instrument
  B. Teacher/School Site Coordinator Survey Instrument
  C: Interview Protocols
  D: Survey Results
INTRODUCTION

The Evaluation Group at the Institute on Community Integration (ICI) was contracted by Pathways to Employment (PTE) to provide evaluation services for the 2010-11 E-Connect e-mentoring program. Since 2000, the PTE initiative has been funded by a grant to the Minnesota Department of Human Services from the Centers for Medicare and Medicaid Services, U.S. Department of Health and Human Services, to help increase competitive employment opportunities for people with disabilities and to meet state workforce needs. PTE is a collaborative effort of three state agencies: the Minnesota Department of Human Services, the Minnesota Department of Employment and Economic Development (DEED), and the Minnesota State Council on Disability. It is guided by a five-year strategic plan with six goals: 1) Partner with Business, 2) Policy Development, 3) Coordinate Services, 4) Improve Communications, 5) Youth Transition, and 6) Data and Outcomes. The E-Connect program is an initiative of Goal 5: “Strengthen transition services and work experiences for youth and young adults with disabilities.”

E-Connect started in Minnesota in late 2009 with 23 students in two sites and grew to serve approximately 281 students in 28 sites in 2010-11. An ICI staff member was contracted by PTE to coordinate E-Connect. In 2010-11, direct coordination responsibilities were shifted to DEED staff from the Arrowhead, Central, Metro, and Southeast regions of Minnesota, with ICI staff providing training, mentor recruitment, and other technical assistance as requested.

This evaluation report focuses on the 2010-11 implementation of E-Connect; however, as is evidenced in the evaluation findings, the work conducted in the preliminary years of this project influenced its implementation and outcomes in 2010-11 because some of the E-Connect sites evaluated had participated in the program in 2009-10, whereas others were new to the program. For example, all of the Central and Southeast region E-Connect programs were new in 2010-11 except for the Monticello program (Central); three of the ten Arrowhead region programs and two of the nine Metro region programs were new in 2010-11.

What is E-Connect?

E-Connect is a structured electronic mentoring program for students with disabilities. Employees of local businesses correspond with participating students via email, providing career and employment information guided by a career exploration curriculum and directed by the coordinating teachers. Two face-to-face meetings are typically held during the course of the program, which may last from 10 weeks to an entire school year.

Mentoring, commonly defined as knowledgeable, experienced persons supporting the personal or professional development of less experienced or knowledgeable persons, has been shown to support healthy youth development in a variety of ways, including the following effects on mentees: better attitudes toward school and the future, decreased likelihood of initiating drug or alcohol use, greater feelings of academic competence, improved academic performance, and more positive relationships...
with friends and family (Campbell-Whatley, 2001; Tierney & Grossman, 1995). In addition, the effectiveness of mentoring in helping youth develop the skills, knowledge, and motivation needed to successfully transition from high school to adult life—a major goal for students with disabilities—has been demonstrated (Rhodes, Grossman, & Resch, 2000). Campbell-Whatley (2001) also discovered that mentoring might positively impact students with disabilities’ transition goals such as developing career awareness, developing social skills, succeeding academically, and overcoming barriers. For these reasons, the National Collaborative on Workforce and Disability/Youth recommendations for healthy youth development for youth with disabilities specifically mention mentoring activities (NCWD/Y, 2003).

E-mentoring should not be understood as an inexpensive replacement for face-to-face mentoring; rather, it has been viewed as a way to provide mentoring opportunities that would not exist otherwise (Single & Single, 2005). E-mentoring also provides benefits to the mentors, including an opportunity to learn about disability issues. Hill, Timmons, and Opsal (2010) report that, “Mentoring offers the potential for mentors to learn more about the skills and abilities of youth with disabilities, while minimizing some of the myths about the occupational potential of this population.”

According to the E-Connect Training Manual (2010), the primary goal of the E-Connect program is to help students understand workplace issues and gain skills for future employment. During the course of the e-mentoring relationship, mentors ask questions, share ideas, and discuss the skills, behaviors, and attitudes necessary to succeed in school and in the workplace. Mentors help students see the relationship between their life in school and how skills acquired in school—such as lifelong learning, managing time, positive attitude, teamwork, and resolving conflict—are used in the workplace.

E-Connect is designed to be implemented by a teacher with a group or classroom of students with disabilities matched to adult mentors from local businesses, with support from an overall (regional or state) coordinator. If there are three or more mentors from a particular business, one person is designated a mentor liaison. If there is more than one teacher participating in a single site, a school-based site coordinator may be utilized.

The objectives of E-Connect include:

**For Youth**
- Connecting to positive role models in the world of work
- Building motivation for academic learning
- Enhancing self-esteem
- Improving their skills in writing, computers, social interaction, and career readiness
- Integrating e-mentoring with achievement of transition/IEP goals
- Receiving expanded opportunities to become successful adults

**For Volunteer Mentors/Employers**
- Developing a better understanding of the skills and abilities of youth with disabilities
- Improving employee morale by offering them an opportunity to mentor a young person
- Improving business/community/school relations
- Providing businesses with an opportunity to recognize the employment potential of individuals with disabilities and help business leaders become more comfortable working with a diverse community
**KEY FINDINGS AND RECOMMENDATIONS**

1. Students reported that they were interested in and valued direct experiences with the world of work, exposure to a variety of careers, and information on postsecondary resources. Both students and teachers reported that the program improved writing and academic skills. Students also noted life skills they learned from their mentors such as being organized, staying open-minded, and how to deal with adversity.

   *Recommendation: E-Connect has demonstrated its potential to provide genuine career exploration experiences, enhance career readiness skills, and improve academic skills for students with disabilities. Program participants—teachers, mentors, and coordinators—shared several ideas for strengthening those outcomes in future implementations, of which many should be implemented.*

2. Students strongly valued the opportunity to establish a relationship with an adult. Student comments indicate that they were excited when mentors emailed and appreciated the time adults shared with them. Students also shared their disappointment when mentors did not email or attend the face-to-face meetings.

   *Recommendation: All mentors should make a commitment to participate fully (i.e., consistently engage with the student(s) via email throughout the duration of the program and attend the face-to-face meetings). Coordinators need to ensure that the mentors understand the importance of their consistent participation before they are assigned a student.*

3. A coordinator – whether state or regional – is an integral component of the successful implementation of E-Connect. Developing and sustaining relationships between businesses and schools is a critical component of the E-Connect program. Most of the teachers reported that they would not be able to devote the time and effort needed for this coordination, especially if there is no history of relationships between the school and the business.

   *Recommendation: Ensure that the role of a coordinator is part of any E-Connect program implementation.*

4. Program participants reported varying experiences in the implementation of the E-Connect program, including the usability of the E-Connect curriculum. Some teachers found the curriculum easy to use, whereas others struggled to fit it into their classroom plan. Some mentors reported that they felt the program needed more structure. It appeared that some of the difference in implementation could be attributed to a teacher’s level of experience and school support.

   *Recommendation: Technical assistance needs to be tailored to the needs and experience level of the school staff. For example, some teachers are able to implement without a lot of support and others require more intensive help from the coordinator.*
EVALUATION PROCESS

The Evaluation Group at ICI was contracted to evaluate the 2010-11 E-Connect program starting in Fall 2010. The evaluation was guided by the following overarching questions:

1. To what extent does E-Connect foster increased student exposure to and knowledge about future career options?
2. To what extent does E-Connect develop students’ academic and life skills?
3. To what extent does E-Connect align with other career- or employment-focused programs that serve students with disabilities?

To answer these questions, we surveyed participating mentors and teachers/school site coordinators and interviewed regional coordinators and students. The following is a brief description of evaluation activities conducted, presented by participant role.

• Mentors: An online survey of mentors who had participated in E-Connect in Fall 2010 and/or during 2009-10 was conducted in December 2010 (see Appendix A: Mentor Survey Instrument). Email invitations to participate in the survey, along with two reminder notices, were sent to 150 mentors. Eighty-eight mentors took the 16-question survey over the four weeks it was available. A second group of 186 mentors were surveyed in May 2011; 97 took the survey. Email invitations and reminders to participate in the survey were sent to 140 mentors. Ninety-six mentors took the survey over the four weeks it was available. The mentors who participated in the December survey were primarily from schools in the Arrowhead and the Metro regions, where E-Connect programs had been running for at least a year; the May survey was sent to mentors in all four regions where E-Connect was being conducted during Spring 2011 (see Table 1).

• Teachers/School Site Coordinators: An online survey of teachers and school site coordinators who had participated in E-Connect in Fall 2010 or during 2009-10 was conducted in January 2011; another survey was conducted in May 2011 with teachers and school site coordinators who had just begun E-Connect during Spring 2010 (See Appendix B: Teacher/School Site Coordinator Survey Instrument). Email invitations to participate in the surveys were sent to 16 teachers and school site coordinators in January 2011 and to 17 teachers and school site coordinators in May 2011. Two reminder notices were sent. Altogether, 20 teachers/school site coordinators took the 18-question survey over the four weeks it was available in both January and May (see Table 1).

Table 1. Survey participants by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Responses from Mentors</th>
<th>Number of Responses from Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrowhead</td>
<td>60</td>
<td>6</td>
</tr>
<tr>
<td>Central</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Metro</td>
<td>80</td>
<td>9</td>
</tr>
<tr>
<td>Southeast</td>
<td>42</td>
<td>3</td>
</tr>
<tr>
<td>No region noted</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td>20</td>
</tr>
</tbody>
</table>
• **Regional Coordinators:** Interviews were conducted with the four regional coordinators between May 10 and June 16, 2011. The coordinator interview protocol questions focused on successes and challenges, roles and responsibilities, and future activities (see Appendix C: Coordinator Interview Protocol).

• **Students:** Student group interviews were conducted from May 17-June 1, 2011. Altogether, 61 students were interviewed at seven sites: Duluth East and Willow River in the Arrowhead region; Foley High School and Wright County Technical School in the Central region; Irondale High School in the Metro region; and Rochester TAP and Winona Alternative Learning Center in the Southeast region. The students were asked questions about what they had learned from their mentor, their likes and dislikes about the program, and ideas for improving the program (see Appendix C: Student Interview Protocol).

All interviews were digitally recorded and transcribed. Individual interviews lasted approximately 30 minutes; group interviews were 30-45 minutes long. Transcripts were coded using NVivo, a database program used for organizing and supporting the thematic analysis of qualitative data. In the following section we list all sites included in the evaluation. In subsequent sections, we present the findings from the evaluation, followed by a brief discussion and overall recommendations for future E-Connect projects.
PROJECT SITES

In 2010-11, E-Connect was conducted in 28 sites throughout four regions in Minnesota. Table 2 lists the E-Connect school sites, the year the program started at the site, and the businesses that provided mentors to each site.

Table 2. List of project sites

<table>
<thead>
<tr>
<th>Region</th>
<th>School</th>
<th>Year Program Started</th>
<th>Businesses Providing Mentors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrowhead</td>
<td>Big Fork High School, Big Fork</td>
<td>X</td>
<td>Bergquist Company, Early Childhood and Family Education, Morning Glory Bed and Breakfast</td>
</tr>
<tr>
<td></td>
<td>Carlton High School, Carlton</td>
<td>X</td>
<td>US Bank of Cloquet</td>
</tr>
<tr>
<td></td>
<td>Cloquet High School, Cloquet</td>
<td>X</td>
<td>Cloquet American, Cloquet Ford, Duluth SSA, Wells Fargo</td>
</tr>
<tr>
<td></td>
<td>Cromwell-Wright High School, Cromwell</td>
<td>X</td>
<td>Gateway Family Health Clinic, Lake State Federal Credit Union</td>
</tr>
<tr>
<td></td>
<td>Duluth Central/Denfeld High School, Duluth</td>
<td>X</td>
<td>New Page</td>
</tr>
<tr>
<td></td>
<td>Duluth East High School, Duluth</td>
<td>X</td>
<td>SMDC</td>
</tr>
<tr>
<td></td>
<td>Esko High School, Esko</td>
<td>X</td>
<td>Widdes Trailer Sales</td>
</tr>
<tr>
<td></td>
<td>Moose Lake High School, Moose Lake</td>
<td>X</td>
<td>Early Childhood and Family Education, Mercy Hospital, MN Department of Corrections, Lake State Federal Credit Union</td>
</tr>
<tr>
<td></td>
<td>Two Harbors High School, Two Harbors</td>
<td>X</td>
<td>MN Department of Natural Resources, Northshore Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Willow River High School, Willow River</td>
<td>X</td>
<td>Lake State Credit Union, Little Angie’s Day Care, MN Department of Corrections</td>
</tr>
<tr>
<td>Central</td>
<td>Foley High School, Foley</td>
<td>X</td>
<td>Falcon Bank, Foley Collision, Foley Drug, Foley Lumber, Murphy Chevrolet, State Farm Insurance</td>
</tr>
<tr>
<td></td>
<td>Monticello Connect 5, Monticello</td>
<td>X</td>
<td>Monticello Chamber of Commerce, New River Medical Center, Pine Journal, Pinewood Elementary School</td>
</tr>
<tr>
<td></td>
<td>Wright Technical Center, Buffalo</td>
<td>X</td>
<td>Auto Value Parts, Buffalo Community Ed, Buffalo Floral &amp; Greenhouse, Dan &amp; Jerry’s Greenhouse, Excel Physical Therapy, First MN Bank, Insurance Center of Buffalo, Matt Legal Services, Morrie’s Ford, Sister Kenny Rehab Institute, Wright County Historical Society</td>
</tr>
<tr>
<td>Region</td>
<td>School</td>
<td>Year Program Started</td>
<td>Businesses Providing Mentors</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2009-2010</td>
<td>2010-2011</td>
</tr>
<tr>
<td>Metro</td>
<td>Central High School, St. Paul</td>
<td>X</td>
<td>Alesso’s Dance Spectrum, Hewlett Packard, MN Department of Employment and Economic Development, Thomson Reuters</td>
</tr>
<tr>
<td></td>
<td>Fridley High School, Fridley</td>
<td></td>
<td>DASCO Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Fridley Transition, Fridley</td>
<td></td>
<td>Cummins Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Irondale High School, Mounds View</td>
<td>X</td>
<td>Institute on Community Integration-UMN, Medtronic</td>
</tr>
<tr>
<td></td>
<td>Lionsgate Academy, Minneapolis</td>
<td>X</td>
<td>Starkey</td>
</tr>
<tr>
<td></td>
<td>Long Tieng Academy, St. Paul</td>
<td></td>
<td>ARC GTC, Human Rights Office, Navy Island Plywood, Ramsey County ECFE, St. Paul ESCE, St. Paul Hmong business owners, St. Paul Housing Agency</td>
</tr>
<tr>
<td></td>
<td>Minneapolis Transition Plus, Minneapolis</td>
<td>X</td>
<td>Metropolitan Center for Independent Living, Tree Trust, Vocational Rehabilitation Services of MN</td>
</tr>
<tr>
<td></td>
<td>West St. Paul Transition, West St. Paul</td>
<td>X</td>
<td>Clean ‘n’ Press, Dakota County, Dakota County Technical Center student, Detroit Public Schools, Garlough School, General Motors Detroit, Institute on Community Integration-UMN, Johnny Miller Personal Training, Navy Island Plywood, Scottrade, Tapemark, Walgreens</td>
</tr>
<tr>
<td></td>
<td>Youth Link, Minneapolis</td>
<td>X</td>
<td>General Mills</td>
</tr>
<tr>
<td>Southeast</td>
<td>Century High School, Rochester</td>
<td>X</td>
<td>Olmsted Medical, Rochester Athletic Club</td>
</tr>
<tr>
<td></td>
<td>John Marshall High School, Rochester</td>
<td>X</td>
<td>Olmsted Medical</td>
</tr>
<tr>
<td></td>
<td>St. Charles High School, St. Charles</td>
<td>X</td>
<td>Edward Jones, Junk (Re)Defined, Rosie’s Repair, St. Charles Family Chiropractic, St. Charles Police Department</td>
</tr>
<tr>
<td></td>
<td>TAP Program, Rochester</td>
<td>X</td>
<td>Mayo Clinic</td>
</tr>
</tbody>
</table>
**Evaluation Findings**

The following findings are based on the evaluation activities – the student and regional coordinator interviews and the mentor and teacher/school site coordinator surveys – that were conducted from December 2010 through June 2011. The findings are grouped into five themes: Implementing E-Connect, Mentor-Mentee Relationships, Student Experiences with E-Connect, Improving E-Connect, and Future Activities.

**Implementing E-Connect**

The key personnel who implemented E-Connect in 2010-11 included an overall program coordinator, teacher(s) (and a coordinator, if there was more than one teacher involved at a site), and mentor(s) (and a mentor liaison, if there were three or more mentors at a site). Below, we discuss the findings in the four thematic areas that influenced the implementation: Program Structure, Making and Sustaining Connections, Training and Technical Assistance, and Mentor and Teacher Experiences with E-Connect.

**Program Structure**

There were three different possible strategies for structuring E-Connect’s implementation: one mentor to one student, one mentor to a group of students, and several mentors to a classroom of students. A majority (85%) of 2010-11 mentors who responded to the survey indicated that they participated in one-on-one mentoring; two mentors indicated they did not know what type of mentoring structure they participated in (see Appendix D: Survey Results).

Mentors who had participated in e-mentoring more than once were asked if their experience had changed over time. Responses were evenly split between no change and yes, it is more satisfying, regardless of the structure of implementation.

Overall, mentors seemed to enjoy the one-on-one mentoring experiences more than the group experiences. One mentor responded, “The first time around we just mentored an entire class. This time around, we are mentoring individuals, which I really enjoy.” Another expressed a similar thought about preferring the one-to-one structure, noting, “This time around I am only dealing with one individual and last year I had several students so it is easier to focus on just one.”

Only nine teachers responded to the survey question about any change in their experiences with e-mentoring. Of those, seven replied that it had become more satisfying, one replied that it was less satisfying, and one replied that it had stayed the same.

Most schools partnered with only one or two businesses; however, a few schools worked with four or more businesses (see Table 2: Project Sites). Working with more businesses created some challenges. For example, one mentor wrote, “My student visited my place without the other students. I talked with his teacher about this and she and I both agreed that the other students would have benefitted also … [H]owever, scheduling and transportation got complicated for the personal visit.” Students from schools who worked with multiple businesses also mentioned that their face-to-face meetings were less enjoyable since they visited all the sites in one day and, therefore, had only a few minutes at each site to meet with their mentors.

In 2010-11, responsibility for the overall coordination of E-Connect was shifted from the state coordinator to four regional coordinators from DEED. Over the year, the state coordinator worked with
the regional coordinators to help them develop new programs, particularly in the Central and Southeast regions, and as requested, supported the ongoing Metro and Arrowhead region programs that were started previously.

Survey responses from school staff indicated that they valued the support they received from the state coordinator. For example, one teacher wrote, “She [the state coordinator] is terrific in her role with technical assistance, relating with our staff and students, and recruiting e-mentors. Our relationship with her has been our motivation in participating in this wonderful program.” Another teacher noted her appreciation of the state coordinator, noting, “the fantastic support and suggestions I received from the state coordinator. She encouraged me when I was feeling frustrated, loaned me her copy of the book I was using, assisted in bringing in a guest speaker for my class, and she visited my group several times during the semester.”

The regional DEED coordinators who were interviewed said that having a state or regional coordinator was important to keeping the program running as intended. The following quotations illustrate the potential challenges to implementing the program without a statewide coordinator identified by some of the regional coordinators.

“Recruiting people was time-consuming, but not difficult. That’s going to be the part that teachers are going to have a hard time with if there’s not a coordinator or someone who takes it on—that getting out there and recruiting businesses. That might be a challenge as far as it succeeding in the future.”

“The only thing that’s always in the forefront of my mind is what’s happening with staffing and how we’re trying to integrate it in our different areas and how to keep that going. I think we’re all doing the best we can, trying to figure out how to have it continue and there’s no real clear path for us to do that. I wish there was. We’re relying heavily on the Web site and the contact information there and connecting teachers to each other to do it. We’ve got the PowerPoint for the trainings and that type of thing, but whatever happens staff-wise and funding-wise, it’s still all a little unclear. I’m going to rely on the school districts and the transition folks to take it on formally when I go away.”

In addition, regional coordinators expressed some concerns about the addition of E-Connect responsibilities to their current position and determining what level of technical support would be needed or appropriate.

“Because of the nature of...my primary responsibilities, I’m not able to have as much contact with the businesses and the schools and the students as maybe the state coordinator did or as maybe she thinks is necessary. I don’t know really how much is not enough or how much is too much. I’m just going to be relying on those school personnel to tell me... I’m just, like you said, technical support. ‘Let’s put this baby in place, and holler if you need me.’ Then I’d check in with them about every two weeks and go there if they want me to, but I don’t insert myself.”
“The state coordinator is great; she has a really nice demeanor and is very good with presenting the whole concept both to teachers and e-mentors. She’s far more graceful than I am and just really nice. She gets a big kick out of it. For me, I like it, but I don’t have the same level of attachment to it, because I have lots of other things that are going.”

Regional coordinators also mentioned how the skills and abilities of the state coordinator fit the program well and contributed to the success of E-Connect. One noted,

“I just think you had the right person in the position. I think she has affability, and warmth, and a true, genuine appreciation and understanding of what it can do for mentors, and what it can do for youth, and what it can do for curriculum. I think she was the right person to have doing it... You have to have someone that has those qualities and has a passion about it. She’s been easy for me to work with. That’s always going to be the case when you hire, that you hire the right person.”

Making and sustaining connections between schools and employers and providing technical assistance were essential components of E-Connect, and consequently were a major focus of the coordinators’ job. Below, we discuss each of those aspects, along with how the change in coordination affected them.

**Making and Sustaining Connections**

Two factors affected how easily connections between schools and businesses were established: previous implementation of the E-Connect program (i.e., in the Arrowhead and Metro regions) and the regional coordinators’ existing long-term relationships. Regional coordinators noted the success of those connections and the perceived benefit to the businesses and the schools of building bridges, as well as the challenges in recruiting teachers and maintaining their relationships with them.

Since the regional coordinators were DEED employees and had worked in their regions prior to assuming the E-Connect position, they had already established connections in those communities and with the schools. The following statements exemplify how the regional coordinators utilized these established relationships to recruit schools and mentors to participate in E-Connect.

“I immediately targeted two schools. Because of my role as a CTIC co-chair, I was well aware of the fact – in my opinion I guess – that the more rural schools didn’t have as many opportunities as the metro schools. I targeted two favorites, and one of the reasons I picked them was because of a VR counselor who was active in those schools and it gave me good connection.”

“I knew who all the work-based learning coordinators were, so I didn’t have to start from scratch.”

“Because part of my caseload has always included transition youth, I already had a lot of those connections established with the schools. That’s how I knew who would probably play with us and who wouldn’t. I made arrangements to go to the work-based learning coordinator weekly
meeting and presented. After that, I just started recruiting in the community. I went to the rotary, went to the Chamber, went to Clinic because I figured it would be a good thing to at least try and land something through them.”

Personal experience also affected people’s desire to participate in the program. One regional coordinator observed, “In almost every case, the ones that said yes immediately have a child or somebody in their life that they’re close to who has a more severe disability.”

The size of the community also affected the process of developing relationships. Coordinators in the regions outside the Metro noted that because they were in smaller towns it was easier to recruit mentors. One commented, “Some of it was door-to-door and some of it was referral and it was just easy. A small community, they want to help out people.”

However, in some places recruiting mentors was not easy, especially where E-Connect was new and where relationships were not already established. In a few sites, mentors were recruited from a number of businesses and it took persistence to find as many as were needed. One regional coordinator noted,

“It was a lot of legwork, cold calling. First of all, the state coordinator and I targeted a couple of auto dealers... We drove by the floral shop and I said maybe that’s a place. When we were having lunch I asked the waitress, ‘Any floral shops you’d recommend?’ This is so cool because she said Buffalo Floral, which we had driven by...We only got the Ford dealer, but got two sales reps. It was hard to pin them down initially, but I think they came through as far as everything I could tell. We stopped at a bank and got one person. We went to an automobile parts place and it was kind of the same situation. I had to go back a couple times. The owner or manager signed up willingly and quickly because he has had internships from the automotive program and hired kids over the years... That was a nice connection. So many times, one thing leads to another.”

One regional coordinator mentioned that occasionally businesses wanted to participate but were concerned that they wouldn’t have time to follow through on the commitment to the students. She said,

“The only time people really said no was when they were overwhelmed with what they had going on. ‘I don’t have time to meet. I’ll take your stuff and think about it for the future, but I just can’t right now.’ A lot of that was they didn’t want to commit their time to a student and then not be able to follow through. They were afraid that they’d let the student down and they just weren’t ready to do that yet. I understood that.”

The regional coordinators also discussed their occasional challenges in recruiting school sites to participate. Below are three quotations that illustrate those challenges.

“The biggest challenge is helping the teachers see what a win/win this is right from the start. I could be all wet because I’m not a teacher, but it felt to me like they didn’t realize that this is just another alternative for them to use and the curriculum is all there ready to be used.
Somebody else does the legwork – in this case at least – to find the mentors. We’re butting into a routine that they have set over several years usually. The challenge, first of all, is getting them to accept it."

“At the one school I tried to get involved with, the principal was on board, everyone was on board, but the teacher was newer and I think she wasn’t ready to take on something that she hadn’t had experience in doing, running a class here before.”

“The only challenge I had with finding new schools was that occasionally there would be a teacher who maybe didn’t… Sometimes when teachers get busy they just drop off things that they don’t necessarily need to do.”

The regional coordinators mentioned that sometimes it was difficult to communicate with the teachers in timely manner to get the program going. One coordinator commented, “Communication is hard, too, because teachers will have one timeframe in mind and they’ll be like, ‘OK, let’s start it then and let’s do it then.’ Sometimes your idea of needing to change it doesn’t always jive with what I’m doing out there with businesses.” Another coordinator observed,

“For example, a school tells me we’re going to start at this date. This is when we want mentors ready. I do it and then they decide, ‘Oh, we’re not going to do it at this time.’ That was challenging. It worked out, but you don’t want to go recruit businesses and then have to say we’re going to do it at a different time and then change everything in the middle of the game. That was challenging.”

The success of the connections they had made and the ways they worked to sustain the relationships was noted by the regional coordinators.

“The whole thing felt like a success because when you get to see the mentors… If you get to go to the follow-up party, and in one site I went when the students got to meet their mentors. It was just fun to see them touch base… It feels very successful when you can get that connection. That would be the best feeling of success, and to hear the students say, ‘This is what I gained.’”

“I got lucky with tapping folks that were really interested in at least having the opportunity to do this. How can we give back to youth? The nice thing, if it’s to be called a success, is having employees, the business mentors, realizing that they don’t need to be expert on anything to participate. With the mentoring program that they already have, they want to match mentors to students who are interested in coming into a healthcare field. I think that worked against them because it precluded other folks who may have something to offer, but not the career development piece because that’s a lot of responsibility. Those folks weren’t doing that mentoring program, but given the opportunity to do this one they jumped all over it. They were all about it. That’s a great thing to be able to bring.”
“Finding champions, I got lucky in finding champions to do it.”

The regional coordinators discussed how the connections developed during the program benefited both the businesses and the schools, as two of them described:

“Some of the successes, and this might not affect the students directly yet, but when you think of businesses and schools needing to build bridges to each other for student success, as businesses have become involved in e-mentoring, people have asked me to come to speak about it at Rotary organizations and Chambers. The word is out there and it’s a way for businesses to get involved in a way that feels comfortable for them and in a way that teaches them about students. I see those bridges being formed and they weren’t there before. I think that’s really important.”

“I think it’s a really great way for businesses out there to connect with students... It’s a good tool.”

**Training and Technical Assistance**

The statewide and regional coordinators provided training to the mentors and ongoing program support to the teachers and school site coordinators. Mentor training included information about E-Connect, e-mentoring, and roles and responsibilities, as well as information specifically about mentoring students with disabilities. Seventy-two (40.2%) of the mentors who took the survey stated that the training provided basic information while 97 (54.2%) said that the training helped them further understand the program and their role as an e-mentor. Over 97% of the mentors stated that the training manual and materials were okay or extremely helpful (see Appendix D: Survey Results).

Fifteen (83.3%) of the teachers surveyed stated that the technical assistance they received helped them better understand the program and improved their implementation of the program (see Table 3). Comments below are typical of those received from the teachers.

“Excellent support and great communication with staff. Felt supported and encouraged as a teacher.”

“I appreciated the initial help in finding mentors, orienting them to the program, and establishing contact.”

“I found the program more self-explanatory once I had the names and emails of the mentors, but when I needed any assistance I received the proper support I needed.”
### Table 3. Teacher assessment of technical assistance provided by E-Connect staff

<table>
<thead>
<tr>
<th>Region</th>
<th>Item Description</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrowhead</td>
<td>I could have used more help</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Okay – it provided the basic information to run the program</td>
<td>2</td>
<td>40.0%</td>
</tr>
<tr>
<td></td>
<td>Great – it helped me better understand the program and improved implementation with my students</td>
<td>3</td>
<td>60.0%</td>
</tr>
<tr>
<td>Central</td>
<td>I could have used more help</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Okay – it provided the basic information to run the program</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Great – it helped me better understand the program and improved implementation with my students</td>
<td>1</td>
<td>100.0%</td>
</tr>
<tr>
<td>Metro</td>
<td>I could have used more help</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Okay – it provided the basic information to run the program</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Great – it helped me better understand the program and improved implementation with my students</td>
<td>9</td>
<td>100.0%</td>
</tr>
<tr>
<td>Southeast</td>
<td>I could have used more help</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Okay – it provided the basic information to run the program</td>
<td>1</td>
<td>33.3%</td>
</tr>
<tr>
<td></td>
<td>Great – it helped me better understand the program and improved implementation with my students</td>
<td>2</td>
<td>66.7%</td>
</tr>
</tbody>
</table>

In addition, five teachers specifically noted that the regional and/or state coordinators were “awesome” and “extremely helpful.”

Staying in touch with the school sites and mentors once the programs were up and running was an important part of the regional coordinator’s job to support implementation. Coordinators discussed the various methods they used, including helping students write emails, providing new mentors as needed, and attending tours of mentors’ workplaces when possible. The quotations below reveal the regional coordinators’ thoughts about providing ongoing program support.

“My role then, once we had all the players, was to go into the schools and help present to the students. I offered myself as someone who could assist with the email part of the process, so trying to stay connected all through.”

“My responsibilities at the time were to make sure that the schools I had done previously had the support they needed, that they knew what curriculum they wanted to use and were good to go. Some of them used the same mentors, so it was a matter of adding a couple of additional mentors for those students. That was about it.”

“It seemed like what they leaned on me for was to go out and connect with businesses. That was the big thing. Everything else they had pretty much worked out and they all did great in communicating with the businesses once I made the connection with them.”
“Another thing I saw where teachers and businesses needed help together is when people would go on tours or businesses would come to the school, whenever there was that face-to-face meeting.”

One regional coordinator discussed problems that sometimes occurred during implementation related to keeping in touch with the teachers:

“The other challenge would have been that we’re not in the middle of it anymore. We turn over the names and everything. It’s their show. I got a late email, after I inquired a couple times, that some mentor never replied. It’s like, ‘OK, I would have nipped this in the bud last week if I’d known.’ But at the same time, of course I didn’t make it clear to them, ‘Let me know right away …’ I think once it gets going it’s almost always fine.”

Regional coordinators talked about attending as many of the face-to-face meetings as possible to help mitigate some of the awkwardness that frequently occurred when adults and students who don’t know each other very well or have only communicated through email spend time together. One commented on her role as a facilitator of the event, stating,

“Then when businesses went to schools, everyone was really polite and all that, but it just seemed like, ‘OK, here’s where you talk to each other about what you’ve been doing. What have people learned? What have you talked about in your emails? What were the questions you learned from? What was really good about it?’ … They’re awkward, so to have somebody there to facilitate or to say to teachers… And you know we do. When I was working with the state coordinator and when I’d been on my own talking to teachers I’d say, ‘Here are some questions to facilitate discussion during these meetings.’ ‘Yeah, they’re awkward, so thank you for the support to do that, to make those worthwhile.’”

**Mentor Experiences with E-Connect**

The primary role of the mentor was to develop a relationship with the student(s) through weekly emails and face-to-face meetings. Mentors provided answers to questions that students posed in the emails while sharing ideas about the skills, behaviors, and attitudes necessary to succeed in school and the workplace. Mentors’ emails to students also included information about their jobs and lives, as appropriate. Of the 185 mentors surveyed, 120 (65.9%) were first-time mentors (see Table 4). Over 98% (170) of the mentors who took the survey indicated that they would be a mentor again (see Appendix D: Survey Results).
Sixty of the 62 participants who had been mentors more than once stated that their mentoring experience had become more satisfying or stayed the same over the course of their participation (see Table 5).

Table 4. Number of E-mentoring experiences

<table>
<thead>
<tr>
<th>Mentor</th>
<th>Number</th>
<th>%</th>
</tr>
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<tbody>
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<td>42</td>
<td>70.0%</td>
</tr>
<tr>
<td>Two</td>
<td>16</td>
<td>26.7%</td>
</tr>
<tr>
<td>Three/Three or more</td>
<td>2</td>
<td>3.3%</td>
</tr>
<tr>
<td>One</td>
<td>39</td>
<td>48.8%</td>
</tr>
<tr>
<td>Two</td>
<td>24</td>
<td>30.0%</td>
</tr>
<tr>
<td>Three/Three or more</td>
<td>17</td>
<td>21.3%</td>
</tr>
<tr>
<td>One</td>
<td>38</td>
<td>92.7%</td>
</tr>
<tr>
<td>Two</td>
<td>2</td>
<td>4.9%</td>
</tr>
<tr>
<td>Three/Three or more</td>
<td>1</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Table 5. Mentor assessment of E-Connect experience over time

<table>
<thead>
<tr>
<th>Mentor</th>
<th>No, it has stayed the same</th>
<th>Yes, it has been less satisfying</th>
<th>Yes, it has become more satisfying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrowhead</td>
<td>10</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Yes, it has been less satisfying</td>
<td>19</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Yes, it has become more satisfying</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yes, it has become more satisfying</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Teachers’ Experiences with E-Connect

Twelve of the 20 teachers who took the survey were involved in E-Connect for the first time. Teachers’ responsibilities included determining when the program began and ended, scheduling the face-to-face meetings, and matching the students and mentors. Regional coordinators stated that the teachers were better equipped to match the students and mentors since they knew the students and
frequently, the mentors too. When asked about matching students and mentors, one coordinator said, “That we leave totally up to the teacher. I’m sure it’s easier for them when they know who the mentors are. The forms ask about hobbies and stuff. I know in one school the teacher had an easier time because she knew everybody.”

Although all of the teachers who took the survey said they would have their class participate in E-Connect again, a number of teachers also shared some of the challenges they experienced in the process of participating in the program. For example, a key element of the teacher’s role was working with the students to write their emails each week. Ideally, each week, class time would be devoted to writing emails, although lack of access to technology could prevent this from happening. Emails were typically sent through the teacher’s email account, although occasionally the mentors and students would send emails directly to each other with the teacher’s oversight. In the survey, a number of teachers commented on the issues they encountered in engaging the students and managing the emails, including:

“Difficult to get students engaged overall (with some exceptions).”

“Difficult to get computer lab time.”

“It was more work than I anticipated. At last count, I’ve read/corrected/forwarded over 200 separate emails, plus scheduled and implemented (and drove the van for) 3 mini-field trips, sent reminders to mentors, and planned a culminating reception at the school. On top of everything else I am already doing, it made my spring semester quite stressful. I need to figure out some ways to make it easier to manage!”

“Emailing every week was hard!”

Additionally, determining how to use the e-mentoring curricula was challenging for some teachers. Teachers had the choice of developing their own curricula or modifying the curricula provided on the E-Connect Web site (http://ici.umn.edu/mnhighschoolhightech/econnectcurricula.html). When asked how e-mentoring fit in their curriculum, only one teacher stated that he/she used the materials directly from the E-Connect manual, eleven teachers said they modified the materials somewhat, and seven said they added their own activities (see Appendix D: Survey Results).

One teacher commented that the online materials provided a good beginning, observing, “The manual was a great starting point for me to then modify to fit my learners’ needs and the learning objectives I needed to meet that quarter.” However, teachers stated it took some effort to make the materials workable in their classroom, as the following open-ended survey responses show.

“The materials were a good launching point, but were not enough for curriculum building – that part was very labor-intensive on my part.”
“Topics were bare-bones and needed some further explanation and examples so that my students could use the handouts independently. That's necessary in my setting because we don't do much group instruction.”

Another teacher noted, “I found that it flowed better if I wrote my own e-mentoring outline based on what we were covering in class that week.”

Three teachers noted their success with the curriculum. One wrote, “I've been using these and adapting them to best fit my student learners for three years. I love the manual!” Another expressed her appreciation for the online materials, noting, “Curriculum online is always available to us, we actually use it as support for our unique school population needs and interests.” Lastly, one responded:

“I found the teacher’s guide very helpful and informative. The materials were easy to follow and were organized in a way that made planning very straightforward. I found that the ‘focus’ for the week set up my students for a successful learning experience.... It allowed my students to wrap their brain around one specific employment topic/issue/subject, explore and learn about it in class and then demonstrating their knowledge by emailing their mentors telling them what they learned and asking their mentors for feedback and advice.”

Teachers also discussed their students’ positive experiences in the program. The following are two comments from the open-ended survey responses:

“I think it reaffirmed my belief in 1) providing students with hands-on experiences and 2) providing students with a chance to develop meaningful relationships with adults. Students learn best this way in my opinion and this experience was very meaningful to me as an educator since it allowed me to watch my students expand their mind and ideas about employment based on connecting with adults in the work world.”

“Everybody loves e-mentoring; it’s great. All of the teachers that have participated may have had their challenges, but there are some [students] who it was really successful for.”

If there was more than one E-Connect group in a school, a school site coordinator ensured program continuity within the school and communication between the school and the state or regional coordinator. A mentor liaison provided the same kind of coordination at business sites that had three or more mentors. The school site coordinators and business liaisons worked with their regional coordinator to develop and implement the program, including supporting teachers and mentors to make sure the emails were sent, scheduling the face-to-face meetings, and troubleshooting problems. Of the school staff and mentors who were surveyed, all 20 of the school staff and 38 of the 41 mentors who indicated they had coordinated E-Connect activities stated that they had received the information and support they needed from the University of Minnesota and DEED staff (see Appendix D: Survey Results). Sixteen of the school staff said they would provide the coordination again as did 33 (82.5%) of the mentor liaisons. Reasons cited for not coordinating again ranged from a lack of time to scheduling issues. One teacher commented about his/her role restrictions, stating, “Yes and no. I can provide some of the
coordination, but as a high school teacher I will never have the freedom to travel to various work sites and solicit mentors.”

**Mentor-Mentee Relationships**

The relationship that develops between the student and their mentor during the program is a central component of E-Connect. To learn more about these relationships, we surveyed mentors and interviewed students. During the interviews, students talked about getting to know their mentor through email and finding out that they had things in common, which supported more of a connection. A few students stated that they did not establish a relationship with their mentor, primarily due to the mentor’s infrequent emails, and suggested how that might be improved in the future. Mentors noted that they valued the opportunity to get to know the students, although a few reflected that they were not always sure they had connected or made a difference.

A majority of the students noted that they liked getting to know their mentors through writing emails about their lives and daily activities. The comments below are typical of what they shared about the process.

“At first, we wanted to know a little bit about each other, so I gave her a description about how I am, how old I am, where I go to school, family members, how many brothers and sisters I have, and what I’m interested in. She pretty much gave me the same exact deal and started on from there, so it started off as a positive conversation.”

“My mentor, he was really great. He lived in New York when he was a child and then his family moved to Minnesota. He went to college and he got a job at Medtronic and he and his wife live in Minneapolis. He doesn’t drive a car to work. He actually walks to the bus and takes the bus to work because he’s used to New York, where you just walk to work.”

“He even talked about how before he ended up where he is now, how many careers and jobs he had before he is what is now. He’s been doing what he is now for a really long time.”

A number of students mentioned that having something in common with their mentor was helpful in establishing a relationship. The following quotations express their thoughts.

“It helps to have something in common... He works on electronics and I work on engines.”

“My mentor and I, we did a lot of outdoor things. We both loved our families and did things with our families. So it was like I did things and he did similar things, so it was like a connection sort of thing. It helped.”

“The first time, I was pretty nervous because I didn’t know the person, so as I felt more comfortable, I got used to seeing what this person was like...then you’d start finding out what you’re both interested in, finding their background and family background, too. It was a lot of fun to find out, too.”
Although most students developed a positive relationship with their mentors, some noted that this did not occur for them. One student mentioned that although he/she did not have much in common with his/her mentor, he/she felt that the relationship was useful, stating, “We really didn’t have too much in common, but I learned some things from him and maybe he learned some things from me.” Another student noted that he/she expected his/her mentor to be different, stating, “There are certain things I thought he would have done differently. In my head, I was excited because I’d get to meet somebody, but I thought I’d meet somebody athletic that loves sports. He was totally the opposite.”

A number of students commented that their mentors were non-judgmental, which they appreciated, with one student declaring, “You don’t know them, but when we saw them, they didn’t judge. They just acted professional, and that’s what we all appreciated. We walked in and they were here. The first thing they said was, ‘Hi, what’s up?’”

The students also valued learning from their mentors’ experiences. The statements below exemplify their remarks about this aspect of the mentor/mentee relationship.

“They were awesome people to talk to, because they’ve been through it all before. Like I said, mine was the head of the department. She had to work hard to get there. Yeah, I learned a lot from her.”

“To get an older person's perspective on what they already went through so we don't have to figure it out on our own. They can tell us, ‘I did this wrong, so maybe you should try this,’ and then you could skip a step of making a mistake, and get further in life.”

“The best part of it was being able to talk to somebody who had the experience that we are soon going to be having to do, like the whole interviews and how to dress appropriately for our work ethics and how to manage conflicts at work and stuff. It’s cool to have somebody who’s been through the situations and can give us advice on how to work it out.”

Students consistently expressed their appreciation of the relationships they developed with their mentors. Comments such as those below were common throughout all of the student interviews.

“It was better than I expected. I got a lot of great advice from my mentor. She told me to never give up and making mistakes is not bad at all, it’s just what makes you human.”

“What I enjoyed most about e-mentoring was I looked forward to getting her emails because she always spoke positively and she answered the questions in her time and she took the time to actually answer them, even though she didn’t have to. The advice she’s given me probably changed my life for the better.”

“I loved my mentor because he told me his whole story about Italy because he’s Italian. He told me a lot of stuff about New York because I’m going to go to New York after I graduate and stuff. Then after that, he just told me about success and never give up on your dreams.”
“I introduced her to some new music that she hasn’t heard before and she surprisingly thought it was okay. Most people are like, ‘Oh my gosh, what is this?’”

“The best part was on Friday, my last chance to get to see my mentor and telling her how much fun we had, and hopefully we’ll get to do the mentor next year... It was fun just to talk again and how fun it was to go to Mayo and to meet him there. That was fun.”

“To get to talk with the people over each week, and listening to what they...had to say. Not only that, but what they could help us with, help us learn, or what we’d need to learn for the future.”

“It was really good. It inspired me and I liked having a mentor that always would be confident in my day and I would always like talking to him and emailing him about what I do and then having good responses back and then emailing them back too. It was really a great experience for me.”

“I enjoyed e-mentoring because I got the chance to meet someone new who is successful and still following their dreams.”

A few students did note their lack of connection with their mentors, simply saying “No” when asked if they felt they had established a relationship with their mentor. One student stated, “I didn’t know him well enough.” Some students expressed frustration with their mentor’s lack of consistency in staying in touch and the impact that had on establishing their relationships. One student recommended:

“I would say to have whoever runs the program to talk to the person more than they did because they should see if they have the time to reply. If they are not going to, it is a waste of time. They might as well not even say they are going to do it. That is the only request I would say. Just know the person a little better and make sure they are going to reply. If not, why do it?”

A majority of mentors who participated in the survey commented that their connection with their student was what they liked best about e-mentoring. As one noted, “The personal connection with a student – it felt as if I was making a difference to someone, and her education.” Another wrote, “It was a great experience. I thoroughly enjoyed getting to know the student.” A few mentors did state their feeling a lack of affiliation with their student, while others wondered whether they made any difference, as one commented, “I feel that my mentee got to know me a little better, but I’m not sure that it was beneficial or advanced any action.”

When teachers were asked to what degree they agreed their students developed a relationship with their mentor, nine strongly agreed, four somewhat agreed, and six agreed that a relationship had formed (see Appendix D: Survey Results). Teachers’ comments about the student-mentor relationship included appreciation for the mentors and how they affected the students, as the following comments illustrate.
“To see my students develop a meaningful connection with adults in the working world. For them to have a trusted adult outside of school that they could turn to for advice in their areas of employment, postsecondary education, and career planning. Some students asked questions of their mentors that I know they wouldn't share with other adults in their life.”

“Seeing how much the kids looked forward to receiving messages, how seriously most took the advice, and some of the great connections that were made. For instance, one graduating senior is applying for a first-time paid summer internship at the company where his mentor is the HR Director.”

“I recognized a need to help students develop relationships with caring adults other than teachers and parents. They respond powerfully to information that they've heard from someone ‘in the field’ even if it is something I have said repeatedly.”

All four regional coordinators noted the positive aspects of the mentor/student relationship. One mentioned that the students were appreciative of the mentors taking time to connect with them, stating, “It made a difference to them that somebody in the community cared enough to email with them.” Another said, “It feels very successful when you can get that connection...to hear the students say, ‘This is what I gained.’” One regional coordinator mentioned that having a connection with a working adult was an enriching experience for the students, commenting,

“They had mentors from General Mills. The value of that, for them, was they liked it. When we asked the kids to evaluate what parts they liked, they liked that because it gave them a connection with an adult who is functioning as a worker in the real world.”

The face-to-face meetings, usually held twice, at the beginning and end of the program, were an integral part of the relationship building component of E-Connect. When mentors were asked if they found them to be important, 151 of 168 (89.3%) who answered the questions said yes (see Table 6).

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>%</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
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<td>9.1%</td>
<td>50</td>
<td>90.9%</td>
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<td>10.7%</td>
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<tr>
<td>Southeast</td>
<td>4</td>
<td>10.5%</td>
<td>34</td>
<td>89.5%</td>
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</table>

Eighteen of the 20 teachers who took the survey strongly agreed when asked if they found the face-to-face meetings to be an important aspect of the e-mentoring experience (see Appendix D: Survey Results). Teachers noted that the meetings were helpful in relationship building and exposing the students to new information about careers, as the following comments show.
“The face-to-face experience my students were provided with by touring our mentor’s job site. It was great for my students to put a face to the name on the email and also they learned about different types of jobs that exist since our mentors worked in different departments at different levels and positions... My students had very little knowledge before this experience about jobs outside of doctor, lawyer, teacher, etc.”

“I liked the positive connection with adults in our community, the relationships that developed between students and mentors, and the affirmation that these adults bring to what we as teachers are trying to accomplish with our students.”

A few teachers mentioned issues scheduling the face-to-face meetings and the ensuing impact on the students. One teacher wrote, “We had many of the mentors come to visit but even with advance notice, there were some that did not come to any of the three days we had available to come visit the students. The students were very disappointed and wanted to meet them.”

Students consistently stated that they found the face-to-face meetings to be useful and interesting, with statements like, “It’s good...you get to put a face with a name,” “It was pretty fun, awesome,” and “We all had fun, They’re cool people, no lie.” One student, talking about his/her meeting with the mentor stated, “The first time was at Medtronic and that was really fun. My mentor told me all about his job and then we looked around and saw what was at Medtronic. The second time was when they came to school two weeks ago, which was when we had our giant PowerPoint.... It had pictures of all the mentors and their students.”

**Student Experiences with E-Connect**

During the interviews, students frequently mentioned their appreciation for what they learned from their mentors and the information and exposure to careers they received as well as the academic and life skills they developed through their participation in E-Connect. Although, as discussed previously, a few students did not feel that their mentors had helped them learn what they expected, they all indicated that they learned something from participating in the program. The following findings regarding student experiences are grouped in three areas: Overall Experiences, Career Exposure and Information, and Academic and Life Skills.

**Overall Experiences**

Overall experiences that the students talked about included the opportunity to meet new people, the fact that busy adults would take time to help them, and new ways of learning. One aspect of E-Connect that a majority of the students appreciated was the opportunity to meet new people and to learn about them and their lives. The following quotes are typical of what the students said about this.

“I thought it was great, meeting new people.”

“Getting to meet them at the end and seeing how they talk about their daily lives, too, instead of just their work. That was my favorite part.”
“Learning about them and their families.”

“I think the best part was getting to know the other person. You have a complete stranger that you're basically asking questions and looking for guidance, and my first time I did it I didn't know if they were going to respond to me. I was like, well, got to see, and then when I got my first email just talking about who they are and talking about themselves, trying to make you feel a little bit comfortable so you can get a picture of them, I thought that was the really interesting part, and then talking about the careers and jobs and everything, and there was times where you can just talk about your week and how your weekend was going. It was fun.”

Another aspect of E-Connect that students noted was that the mentors, who they perceived to be busy adults, took time to help them learn. The comments below are typical of what we heard from the students about the mentors spending the time to connect with them.

“Taking the time out of their job just to help us and show us living an adult life, and it ain’t different from living a kid’s life. They just have an important job. That’s what I learned.”

“That’s why I respect them enough – to take the time out of their job, because they are busy people. They’re probably working right now, slaving in the hot box. It was fun.”

“It’s generous that they would go out of their way to help one, single kid.”

E-Connect provided students with the opportunity to learn new ideas, as several of them noted:

“Learning the different things about work that you don’t normally learn in a school.”

“I was helped to understand the concept of what (my teacher) was trying to teach us about employment and how to be a good advocate, and be a determined, hard worker.”

“It was a good experience. I learned what you had to do to become a car dealer man and to get into an automotive shop.”

“Learning is a lifelong process and you can’t stop.”

A number of students mentioned that they appreciated learning about how their mentors dealt with adversity. They talked about how they might apply this information in their own lives:

“My mentor explained how to deal with failures – failure and how to approach it and how if you fail at something, how to overcome it and not to let it drag you down.”

“Something that she told me is that about failure and defeat, that you always get another opportunity.”
“I learned to stay positive and have a positive attitude towards things and if you do fail at something, don’t get discouraged.

When asked if this was something they had not heard before or if they had heard it in a new way, students’ typical responses included:

“This was more of an in-depth...a new experience.”

“Well, I've heard, ‘Don’t let things drag you down.’ Well, he put that in front of an example and this and that and it actually helped me understand what that really meant.”

In addition to student’s own comments, the teachers and regional coordinators noted the effects of e-mentoring on students. In the surveys, the teachers also indicated that they believed the students benefited from participating in E-Connect in a number of ways, including overall learning and learning related to their relationships with their mentors. One of the regional coordinators discussed how a student who previously had a number of behavior issues made positive changes related to his/her participation in E-Connect:

“A really nice piece that I saw is a young man at one of the schools who has had a behavioral issue at every school he’s attended. I think he’s a tenth grader, has been at many schools already and has been a behavioral challenge. But given the opportunity to learn about the mentoring program, he has bloomed so nicely, wants to do it again next year if they get the opportunity, and would like the same mentor. To see the behavior settle down... the case manager said to the work-based learning coordinator, ‘He is so turned around that it’s a pleasure to watch. He may not behave himself in every class, but you know he’s going to behave in your class kind of a thing.’ I think that’s because of the mentoring piece, so that’s been stunningly good.”

When asked their perception of how students benefited from e-mentoring, 14 teachers (73.7%) strongly agreed that their students benefited (see Appendix D: Survey Results). Teachers’ comments about the benefits the students received ranged from “Thanks for the support and for this program – it really benefited my classroom and students this year and definitely enhanced their learning,” to general comments on the impact of their relationships with the mentors, as in the comments below.

“I found the connection with mentors from the professional environment valuable for my students as often times we as educators give the same information but they don’t always pay attention to it. When someone outside of our program speaks to them, they tend to listen more closely.”

“To see my students develop a meaningful connection with adults in the working world. For them to have a trusted adult outside of school that they could turn to for advice in their areas of employment, postsecondary education and career planning. Some students asked questions to
their mentors that I know they wouldn’t share with other adults in their life and the weekly activities and questions gave my students the opportunity to think about employment and postsecondary topics that they would not have thought of without the prompts. Also I feel that this program enhanced the learning in my classroom for my students.”

“Seeing the excitement in my students when they read their mentor letters. My students became more engaged in literacy! Many wanted to write to their mentors every day! I LOVE e-mentoring and hope my students can be a part of it year after year. Students increased their self-advocacy, self-determination and work and college readiness skills by being in this program. The best program I’ve been a part of over my 20 years at school. The growth I see in my students is unbelievable! Thanks ALL of you who made this program come to life!”

**Career Exposure and Information**

Students consistently discussed the opportunities participating in E-Connect provided for gaining practical information about careers, including career-related resources, interview tips, and resume writing information. A majority of teachers noted that they thought their students learned about careers from their mentors. Mentors referred students to useful resources to explore careers and postsecondary education alternatives, such as Web sites and books. Many students noted that they found this helpful, as the statements below demonstrate.

“I talked to her about how I want to be an art therapist and she gave me suggestions and ideas.”

“She gave me a Web site to look at. It’s not really a college, but it has classes online and guidelines.”

“I liked the whole talking about schools and jobs and what jobs are interesting. She told me to get the book *What Color is Your Parachute.*”

“She helped me out and she told me some things so you would know what to say on a job interview, how you would approach a job. She told me about some of her college experiences and how it was for her when she first started opening up her business. I think it was helpful in some ways in giving me some things to look out for when I do start to go to business school.”

Students also mentioned that they found the advice their mentors offered useful, as the following quotations indicate.

“He gave me good advice to look into college classes. I signed up for college classes already.”

“I learned more about the career I want to go into, and she helped me and gave me advice about it.”
One student said he/she had signed up for a volunteer position in a field he/she was interested in because of the mentor’s advice, stating, “I took the ‘get out there and get some experience’ stuff. I have papers to do volunteer work, so I’m going to do stuff this summer over a period of time to see if I like it and would like to get into that field.”

Students discussed the opportunities that their mentors provided to experience being in the workforce, even if it wasn’t in a career that the student might be interested in, as noted in the statements below.

“It was mostly the education and getting experience in work fields, maybe even if it isn’t for exactly what you want to do, it might have something to do with it, just smaller portions. It helps a lot to get even just any kind of education on the work experience as possible before you decide to go into a career.”

“I think it’s a good opportunity for people who are interested in the job workforce and to understand things that have to be done right or things you need to learn before you actually go and do it, so I think everybody should at least try it, maybe for one or two weeks, to get a feel of learning from somebody who’s actually in the workforce.”

Resume writing and completing job applications were also skills that students learned from their mentors.

“I learned how to write really good resumes.”

“I learned about job applications, how to fill them out.”

“Instead of being unclear and nervous on what to say on a resume, you know what to say in a resume, what they like, and you learned that you don’t say any flaws about yourself. You only say good things about yourself.”

“Trying to get as many applications as I can get done.”

“I learned to apply to a lot of different job areas to get a job.”

One student noted that he/she had a job because his/her mentor helped him write a resume:

“I know it’s just the resume that he helped me with, I used it. I’ve got a job now because he helped me, so I don’t know what I would have done if he would have never helped me build a resume or even contact list. Me, I just... I don’t know. What he did with me to help me, it was cool and I appreciate that.”
A number of students talked about their mentors helping them prepare for job interviews, including how to dress, what to expect, and to be confident. The statements below are typical of what the students said they heard from their mentors.

“How to do a job interview and what it takes to get a job and how to keep it and how to do that job perfectly well.”

“My mentor explained to me and I already knew things about going in for an interview, but he told me to go in with confidence, nowadays you have to go in there and be over-confident... My mentor helped me with the little things that meant a lot, basically.”

“He taught me what to expect in the interview for that position, what clothes to wear, what to say, what to do.”

Students also learned that there are some jobs they would not want to have, as one student mentioned when asked if there anything that he/she was interested in at Mayo Clinic, “I learned that I probably wouldn’t like any of that.” Students also noted that they learned from their experiences with their mentors that jobs might not always look like you think they will from the outside, as the following statements demonstrate.

“We found out what kind of jobs they had, but at the same time, it was amazing because usually they talk about how doctors are and how people in the ER, how they are the most important people, but knowing all that I’ve learned from them, I think their job is something I would do if I was capable of doing it.”

“I learned that they’re not doctors; they’re not anything. They don’t really get seen or well known. They’re the behind-the-scenes people. I think that was really cool. They aren’t that known, but they do so much for the company. I guess I learned that even though you’re not a doctor or a big surgeon or anything, you still do a lot for a company like a hospital, and you don’t get much recognition, so I guess that could be like any job.”

Finding a career you like was mentioned by many students as something their mentors stressed, with the statements below typical of the students.

“I asked them, how do you start off when you’re a teenager? How do you work yourself all the way up, and did you see yourself coming up being in the job that you have now, or did you not? I was interested in that because right now I’m doing heavy construction, but in 10 years from now is that something I want to be doing? So I was interested in that, but they said everything just fell into place.”

“All I remember is that they liked doing their jobs.”
“He made it really important in finding a job that you want to work in and something that you’re going to want to do every single day is incredibly important because you’re not going to want to get stuck at a job where you’re going to be working there every day and not want to be there. I thought that was pretty important.”

“Get the experience a little bit, learn to know what you want to be and why you want to be there, instead of just going into it blindsided, thinking that you have a good idea about it and then just turn out saying that ‘Oh, you made a mistake, you didn’t know what else to do.’”

“She was like, ‘Do something that you don’t mind waking up to do; do something that you want to wake up and do every morning, not something that you,’ like he said, ‘regret later on in life.’ That’s sort of what she was saying.”

When asked their perception about students learning about the world of work from e-mentoring, 13 teachers (68.4%) strongly agreed that their students learned about the work world from their participation in E-Connect (see Appendix D: Survey Results). One teacher’s comment typifies what was reported: “The weekly activities and questions gave my students the opportunity to think about employment and postsecondary topics that they would not have thought of without the prompts.”

**Academic and Life Skills**

Students described gaining both academic and life skills from participating in E-Connect. They mentioned academic skills such as writing emails and improving their writing skills, and life skills their e-mentors discussed such as being organized and staying open-minded. Teachers reported seeing similar results.

Students noted that they learned to write emails and that this skill helped them in other classes. Many students mentioned that they “Just learned about writing emails.” Comments such as, “It was pretty much my first time using emails, actually really using emails,” and “I thought it was a cool idea because for someone who’s never used email or anything, you have to learn how to use it,” were also typical. One student did say he/she didn’t really see the value in learning how to email, stating, “I learned how to do emails, but I don’t think emails are very important. I barely use it, so why have it?”

Writing and typing skills were another area where students noted improvement. The statements below are typical of what they reported.

“I did improve on my writing skills... I even got an A on my essay and I usually get like C’s or below.”

“I think in the beginning with typing email I wasn’t really too sure about everything. I was like, okay, what’s all going to happen? But farther down the road, it helped me type a lot better and I think it helped my spelling, too.”
“When we first started typing them, I wasn’t really too good on the computer at all; but when I started learning how to type a little bit better, and I never wrote an email before, so that was always something I was thinking, ‘That’s something new’.”

Students also discussed what they learned from writing the emails, noting that it can be easier to communicate with someone you don’t know.

“Normally I always had my teacher help me on the computer, but when I came to the mentor I was a little bit more open to it because it’s like texting on the phone. You have to learn, and it just fell right into place for it. It helped me.”

“I’m not much of a computer person in sending emails and stuff like that, but it’s a good way to communicate with somebody who you don’t know.”

The life skills that they learned about through the program were also mentioned by the students. A number of them said that their mentors helped them realize how important being organized is, as the following quotations show.

“Knowing how to handle stuff like organization skills. For me, that’s a big thing. I have problems with knowing where my things are sometimes. I have learned to deal with that with folders for every class, and that helps a lot with my organization skills and it also shows you if you can be organized in school, you can be organized during your work.”

“I learned that you should be organized when you go out into a college setting or into your workplace setting because if you’re not organized, that’s going to really drop everything. It will take a lot longer than you figured.”

“Stuff about organizing and priorities. In the workplace. And in general.”

“Always be organized.”

Students also talked about their mentors telling them to be open-minded and to keep their options open, as the comments below express.

“She told me I might even change what I want to do, like how many times a business might not do what I want to do, so always keep my options open because I really just wanted to focus on [one thing], but she was like ‘You should always keep the options open because you might change your masters or major a couple of times.’ She was like ‘Look out for other options, but if this is what you want to do, keep one eye on it but always be prepared for a backup plan in case you change your stuff.”
“To be open-minded... Being open-minded in deciding what job you want, if you want to be in a job now, whether 10 years from now, or if you want to go to college or if you don’t want to go to college. You’ve got to be open-minded wherever you go.”

“Yeah, because mine didn’t know what she was going to do, and she said to be open-minded. If the first decision you make doesn’t work, then go on to another decision and maybe that will work for you.”

Mentors also discussed the importance of working towards a goal, as one student explained:

“She quoted someone, Earl Nightingale, as basically saying those people that work towards a goal, work towards something, usually get there and feel successful. The people that don’t really have a goal to work towards, just kind of stay below and not really do much. So just taking that in, if I want to get to someplace, I need to work towards it.”

A number of the students said their mentors were inspirational and helped them to do a better job in school and in life in general, as the following statements demonstrate.

“Yeah, my mentor told me to never give up on doing homework and never sit there and slack off and be a failure because I used to do that a lot. Talking to him made me do more work and actually get my grades up and I’ve been doing great since then.”

“I have something I learned from my mentor. I learned that she gets behind sometimes. Like when I send a question to her, and she doesn’t reply until two weeks from now. I learned that you can’t get behind on things and then you’ll feel stressed out because you’ve got so many things to do. I said to her, ‘It’s okay.’ She apologized, but I was like, ‘Hey, it’s okay. We’re all human.’ I realized we make mistakes and I’ve learned from her mistakes to not get behind. You might as well just start with one question at a time instead of everything at once. I liked that.”

“It helped us a lot with our communication skills, too, because it was like we were talking to someone we didn’t know, so we had to be brave enough to talk.”

“How to keep a job, how important it is. What you need to do to stay focused.”

“We learned a lot about living on our own and stuff like that, the ways we should act and things like that.”

When asked if there were things they would have liked to learn from their mentors, students mentioned topics such as how their mentors found their current jobs and what the experience of getting a job entailed. As one student stated, “How they got into their job that they are in today and how they learned from experiences, like how many times it took them in a job interview until they finally got the job, and how they felt each time if they didn’t, and what they did to improve each time.”
Teachers also noted the overall impact of participating in E-Connect on students’ academic skills, as the following two comments typify.

“It was great for the students to work on their typing, English (sentence structure skills), as well as learning how to use a computer, interacting appropriately with e-mentors, etc. I will be doing more with computers and my students in the future,”

“I feel that this program enhanced the learning in my classroom for my students.”

Improving E-Connect

In all the evaluation activities – student and coordinator interviews and mentor and teacher/site coordinator surveys – suggestions for improving E-Connect were solicited. A number of those ideas are highlighted here, starting with the students’ suggestions, which included additional face-to-face meetings with their mentors, better matching between students and mentors, changing the format of the emails, and increasing the duration of the program.

Although most of the students expressed their satisfaction with participating in E-Connect, a number of them had ideas for improvements. One change that was mentioned by at least one student in almost every interview was increasing the number of face-to-face meetings. The students had a variety of reasons for why they thought this would improve the program, including wanting the mentors to be involved in their lives and further solidifying the relationship. The following quotes are typical of students who thought the program would be better if they had spent more time with their mentors:

“I like face-to-face contact. If we would have sent them two emails [a week] and seen them more, I would have said this is the best thing ever. If we didn’t send an email, how would they know what we were doing?... But if we see them, they’re in our lives, not just as a piece of paper or an email away, and if we can do that, we see them more often, that would be great... If you’re in our shoes and you have somebody on the other side of the computer, you don’t know about them too much but you really want him to get involved in your personal life.”

“We meet these people two times and we don’t see them till the end of the year, and that’s what really drives me nuts because you don’t know...and if you can ask them anything, like what their favorite sport is, it’s like a friendship. They tell you stuff about their life.”

“One thing I didn’t like was we didn’t get to interact very well with our mentors because they were working and we only got to see them twice or maybe three times. I don’t remember, but just the fact that we don’t get one-on-one with them besides emailing to learn.”

“That would be cool if we would have seen them four or three times. I would have been happy.”

Students had suggestions about what they would do if they had more meetings with their mentors, including more informal encounters and more activities at the mentor’s workplace. The comments below typify their thoughts:
“Well, I’d want to see his... not work site, something more social where he’s not on the ball...where it’s informal.”

“Like having half an hour that we’re leaving for the class period and we all get dropped off with our mentors and we all just spend time with them and get to know them. So it’s actually a good contact that we could use in the future.”

“Go out to lunch or something. Go to a park. A field trip.”

“What would be a really good one is if you could spend a day with them at their business, or even two hours, just to see what it’s like in their shoes or in the field that you want to be in. Like if you wanted to be a chef, go spend two or three hours with a chef at a restaurant.”

One student noted that more face-to-face meetings might help eliminate the awkwardness of emailing someone you don’t know and then meeting him/her, stating, “More face-to-face meetings... you kind of felt like you were talking to a stranger and then all of a sudden you met them.” Another student thought meeting their mentor before the emailing started would be a good idea: “Before the introduction, I would say to have a tour to meet with the person that you’re mentoring first and then do the introduction. I think it would be better if they had a visual of who you are first and go from there.” Conversely, sending more emails before meeting the mentors would be good, according to one student, who said, “I think maybe to send a couple, like two or three emails and then meet them. Just to start making sure that they’re replying back and you know that they’re going to be reliable for sending emails and sending them back. Then maybe meet them.” Another concurred, noting, “Yeah, just a couple to break the ice and then to meet them. Just so we know who they are and what type of person they are maybe...we’d make more of a connection or something.”

Other suggestions for improvement included better matching between mentors’ careers and mentees’ career interests, as two students stated,

“I think it would have been better if we could have had a mentor that was in the career field that we were interested in.”

“Because my mentor works at the hospital and I want to do construction... maybe find somebody in their career to know what they want to do.”

Students also discussed the format of the emails (where they were directed by the teacher to ask specific questions each week depending on the curriculum that was used) and how it was sometimes boring or tedious, stating:

“I got tired of doing the exact same thing, restate what they say and then ask them what we’re doing next week.”
“I don’t think the questions were really necessary. Half the time I kind of ignored the questions and kind of finished our conversation with whatever we were talking about that week.”

“We had many questions, such as what to look forward to after you graduate, struggles and stuff. Those are questions that we want to ask, instead of the ones that we were assigned. The ones that we were assigned were good too, but we had questions of our own.”

Two students commented on the content of the emails and being required to ask the questions their teachers gave them, which were frequently about issues they had previously learned,

“All of our questions that we’ve asked them would be stuff that we could already know. It would be nice if we asked some questions that we really don’t know anything about. It’s nice to see their perspective on jobs, but if we already know it, then...”

“Because the emailing, it was kind of like whenever we got time and just emailing him ended up being the same thing over and over, and a lot of the same stuff got said. It was unclear on what we were supposed to be gaining exactly.”

Although most students thought the length of the program (about 7-12 weeks) was sufficient, a number did recommend a longer timeframe:

“I think it should go longer because it was nice getting to know them and talk to them. I just think it should have gone longer or go into the summer.”

“I think it should be longer too because I liked the experience and we should have more stuff into it.”

“Do it for a longer period of time instead of ten weeks, at least half of a year, a quarter or something or longer.”

“I think it would have been better if it was an all-year thing.”

When asked why they would want to have the program longer, students noted that it would give them the opportunity to get to know their mentor better, ask more questions, and learn more, stating:

“Yeah, get to know him better.”

“Ask him more questions.”

“More questions and learn a little bit more.”
Another student didn’t necessarily want more face-to-face meetings or a longer timeframe but was interested in emailing more often: “I don’t think it should be longer. I think we should just email the mentor more often. So instead of once a week, we send out three or four a week.”

A number of students talked about the process of sending and receiving emails and noted that they thought the process – in which all emails are routed through the teachers as a safeguard against any inappropriate comments – was cumbersome, stating:

“I had some ideas, because it was... Like I’ve heard that the instructions were to send it to our teacher, but that was hard because I was tempted to actually get the email from my mentor, but they said that’s unacceptable to have; you can’t have your mentor’s email. But that’s something that could really improve is just make it easier and just send the email to our mentor, right to their email, instead of to our teacher and then they send it. Because that was a problem.”

“If we could get their email to us, then we could just send them our answer, and then they can send it to it and us would be a lot faster.”

“I agree because then you know that you’ll get it at least from them, and if we’re waiting for our teacher to send it to us, it takes more time to even respond to them.”

A few students suggested that the program incorporate more hands-on experiences with their mentors, with one student stating,

“I wish that we had more time and maybe got to do something more with our mentors instead of just going for one face-to-face meeting because we went in groups, so our whole group was sitting there. It’s like they just got a chance to talk about their job and that was all we got to hear about, to be able to do some more stuff and maybe even a little bit of hands-on stuff... One of the groups that went, I don’t know exactly where they went, but they made name tag cards because they went to an engraving place. They got to do their own little name cards. To be able to do something, just anything, to get to know what they do more than just hearing them talk about it. I feel like if we did more hands-on stuff that what career you want to do is would help you get an idea and understanding of what it is and if you want to pursue it or not.”

This same student then suggested surveying students to find out what type of experience they would like to have, saying, “The next time they do this, they should do a survey first so that then they get a gauge for what people like to do.”

A number of students commented on making sure their mentors wrote to them consistently. Two comments from students exemplify this issue: “Get them to actually write back. It was frustrating when they didn’t write more,” and “There were some people here that they didn’t get any emails. They [the mentors] never participated.”

Finally, two students, when asked for recommendations for improvement, suggested always interviewing students at the end of the program (referring to the group interviews done as part of this evaluation which are not typically part of the structure of E-Connect). One student described why
he/she thought it would be good to have a chance to share their thoughts on the program: “Because if you guys have the same routine over and over and over again, you'll never get the same... 10 years from now, it will be exactly the same, but if you keep doing this [referring to the group interview], it will be way different and it will be a lot better and more useful for whoever,” while the other said, “Not that I can think of, besides just keep the program going and do the interview like we are now and make things better.”

Mentors also had ideas for improvements to the program. Like the students, many mentors thought additional face-to-face meetings would be useful and would provide an opportunity for mentors and mentees to get to know each other better. More than one mentor suggested something like, “More face-to-face interactions, maybe the mentors could come to class and see what they are learning.” One mentor talked about the format of the face-to-face meeting, stating, “We had our first face-to-face at our workplace and the students seemed very reserved and uncomfortable. At our second meeting, at their school, the students were much more relaxed and outgoing. Not sure if this was because they knew us better or they were in a situation/setting where they were comfortable. Might want to consider having the first get-together at the school.” Another mentor suggested, “We should consider Skype or a type of web-chat.”

One mentor suggested having the student spend more time at his/her business, stating,

“I think it would have been wonderful for the mentee to spend some time in my line of work to fully understand what a day at work is like. My mentee did didn’t seem to understand what life after high school was going to be like. I thought it would be great to show her rather than just give her a tour of my office.”

Many of the mentors commented that ensuring student engagement with the program would improve the experience, with the comments below typical of their thoughts:

“I wish those being mentored would somehow respond to the emails that I sent to them. The emails I received were only on the next topic, and never discussed the ideas, thoughts and plans that I mentioned in my emails back to them. I would have thought they would have generated some questions regarding my messages.”

“Find students that really want to make the commitment to the program.”

“My first year the student didn't finish the program. The second year I was assigned two students and one also didn't finish the program. I would have like to be able to work with the kids more.”

Many of the mentors remarked that the program would benefit from better structure and organization. One noted, “I don't believe the program was very organized. There seemed to be confusion about who was mentoring who,” while another said, “I believe that it is a good program – very beneficial for both mentor and mentee. I think it needs to be a little more structured.” Four other mentors identified specific ways to improve the organization of the program, stating,
“The staff from my area of work really wanted to participate, really wanted to make a difference. I know initially there was a lot of frustration because some hadn’t been matched, some had two [mentees], when they were told it would be one-one.”

“Identify a coordinator early in the process, someone that can connect with the agency and the student’s teacher.”

“It would have been nice to know what the students were told about this program.”

“Maybe have the students email at a scheduled time every week so that I know when to expect the email. This might also help prevent the students from forgetting to email.”

Many of the mentors noted a lack of communication with the teachers:

“The classroom teacher did didn’t communicate with me very well, so we often didn’t know what was going on. For example, we wouldn’t get emails on many weeks and were not told why. She just wasn’t a good point of contact for us.”

“More contact with the teacher.”

“The communication with the teacher can be lacking. We sign up to e-mentor and then don’t hear anything for weeks. After the Christmas holidays we again didn’t hear anything – just stopped getting emails. Then I reached out to the teacher to ask what was going on and all of a sudden we get emails again. As business people, we expect some sort of follow-up. If the program is going in hiatus, it would be good to let the e-mentors know this. Same thing for the start up – decide on a date and then stick with it. We have been left hanging a lot.”

Two mentors suggested that providing feedback during the program would be useful, as one noted, “There were times when I was wondering if I was emailing information that was too complicated or not interesting. It would have been nice to get some feedback while in the program,” and the other said, “I would just like a little more feedback on what our contribution did or did not do to help them.”

Increasing the length of the program was mentioned by a few mentors; statements such as, “It didn’t seem long enough, especially with all the fall/winter breaks in school,” were common. One mentor elaborated on that thought, saying,

“The program, if possible, should be lengthened to several months rather than the approximately one-month-long session that we had. I felt as if I was just getting to know my mentee when the program ended. Also, mentees should be advised to take full advantage of the program by getting as much information and advice as possible.”

Many mentors described issues with technology and suggested that the schools “Fix all the computer issues.” One mentor noted how that impacted his experience, stating, “There had been
problems with the e-mail system at the school I worked with and that was a disappointment that we did
didn’t have more interactions.”

Teacher’s comments about improving E-Connect ranged from simple ideas, such as adding more
curriculum and sharing resources between programs, to more complex ones, such as adding additional
activities at the end of the program and better matching of students and mentors. Two teachers talked
about sharing resources and making changes to the curriculum to better serve their students, stating,

“Maybe you could collect assignments that teachers have used and make them available in the
future. The ones on the Web site have some good ideas but seem pretty bare-bones. As I said
above, in my ALC setting I need assignments that are quite complete and that students can do
independently, since we are not set up to all be doing the same thing at the same time in any
given class period or even any given week.”

“Put the curriculum on the computer so that the students can send Week One sheet to e-
mentors (that way they can see more specifics on the question that the students are asking,

One teacher talked about adding additional activities at the end of the program and noted that
one of his/her students had done that, reporting,

“One of the mentors themselves thought there was not enough face-to-face contact with the
students and would rather have had more visits, or even more job shadow experiences, built
into the program. For one of my eight students, immediately following the e-mentoring
experience, she and her mentor elected to continue the relationship into a job shadow
experience. I think this could be brought to mentors and students as an optional element to the
program – ending with a job shadow or internship experience.”

Training the mentors to better work with the students and having a list of mentors to make
better matches from was mentioned by two teachers, as they noted:

“I think another thing to think about is how to encourage mentors to take a more personal
approach to the kids. Some were great, others offered pretty generic responses and didn't really
make it very personal. This was true even for one or two mentors who I know personally or
through previous collaboration as caring individuals. Some people just aren't very good writers.
And there were also a couple of mentors who were very slow in responding to the kids, who
needed reminders from me several times. (On the other hand, there were several kids who were
also slow, but I figure that's pretty predictable.)”

“It would be nice to have a list of mentors/businesses to choose from if I ever wanted to make
more of a 'match' with a certain student or class...for example, if I have a student who really
wants a certain career path.”
One teacher suggested vetting the mentors to ensure their ability to participate, stating, “I think it would be nice to interview the mentor to see if this was doable for them,” while another said the question he/she had was “How to do it again in a less time-consuming fashion.”

**Sustainability and Future Activities**

The future of E-Connect was discussed extensively by the regional coordinators. They talked about the program’s successes and the opportunity it provided to connect the schools with businesses in their communities. They wondered how to incorporate E-Connect into other school initiatives so it is not a stand-alone program. Teachers and mentors also talked about the positive outcomes they saw and their desire to see the program continue.

Regional coordinators talked about the successes of the program and how could be continued in the future, noting that many participating businesses were interested in continuing their involvement, as one coordinator stated,

“What we really like is that some of the bigger employers are taking this on in a big way. They want to continue it and they want to do it every year. They want to have one school and however many students they have they want to provide mentors for. The hospital in town, they do an outstanding job and their tours were really cool. The paper mill here, they’ve done the same thing year after year and it’s been really successful. The power company as well, so those big companies are committed to taking it forward and trying to keep going with it.”

All four regional coordinators discussed aligning E-Connect with other programs and activities. Two of them stated that E-Connect could be incorporated into a career development model, noting,

“I think e-mentoring is one of many activities that need to be included in a career development model, and Minnesota doesn’t have one. Some states do.”

“I think that E-mentoring is one excellent form of career development activity, and I think that it needs to be added in, however the design is going to evolve, and that there should be steps. You’re at this place in your career development, at this stage of your education – middle school or elementary school through high school – here’s where E-mentoring might fit, along with here’s where job shadow might fit. My sense is that scatter-gun approaches are helpful to some degree for some kids, but it would smarter if it was a more systemic and systematic process. I think at a minimum, what the E-mentoring curriculum and schools, or other types of projects, should look at is where are the kids when they’re coming in – have all that discussion – then go through the curriculums and say what have you learned from it and what is the next step in career development activity for you. That, at a minimum, should be added in.”

Three coordinators said E-Connect would fit well in a transition curriculum such as the skills training students with disabilities receive, as the following comments show.
“I was talking to someone from the special education co-op. The schools contract with them and they provide support materials. They’re encouraging schools to have not just a transition class, but a more focused employment curriculum because sometimes they’re pretty loose, or that’s been their experience. They would like to have e-mentoring be part of the actual curriculum that they’re writing for these teachers, so they can say, here is curriculum that is focused on employment, on career development, on transition but with the employment focus, and they want e-mentoring to be a part of that. That’s one way, have it integrated in, that it’s not just a piece that’s added on to whatever the teachers are doing, but that it’s part of an overall employment curriculum, an overall transition curriculum with a focus on employment.”

“Another way is to tie it in with the secondary technical education stuff people are doing, all of the skills training that students have in the schools. Whatever those classes are, for example, up here, they’ve got different programs and to tie e-mentoring in, whether they’re working in a kitchen or whether they’re in auto body or mechanical classes... Whatever those pieces are, that the students have e-mentoring formally attached to that as a piece of it.”

“In my thinking, what is the next step from here after businesses get to know the students? What then? I wish that some of that communication [between students and mentors] was more employment-focused. The curriculum provides that opportunity, but I think some learning gets lost because sometimes the questions or communications are so relaxed. It’s almost like, yes, we want to get to know them personally, but we don’t want to lose those employment-related or career-related pieces... For businesses, too, it’s important that they see the value of the students learning about all of those things that we talk about, how to set goals, what it takes to get a job and what are some opportunities out there.”

A teacher also commented on incorporating E-Connect into transition programming, stating, “This is an extremely valuable resource for the transition piece, which we are charged with providing for our students with special needs.”

The regional coordinators mentioned how E-Connect could be included in activities outside the classroom. One noted that e-mentoring was going to be part of a summer program and another talked about how it has been part of afterschool programs for students with disabilities.

“We have a real active summer youth program through the WIA youth program. What we’re going to be doing is having a dozen kids and some are e-mentoring, so I’ll be finding the mentors, she’ll be supplying me with the kids, and then we’ll probably act as the ‘teacher’ role in the process. We’ll be providing the kids with the topic of the week, so just fulfilling that teacher role. All the emails will come out of the WorkForce Center, rather than the kids sending them from a school email address. They’ll be emailed to the youth coordinator who will look through them and make sure they’re appropriate and then forward them on.”
The possibility of working with juvenile justice was also noted by one coordinator, who stated, “One of the juvenile workers... I don’t know if he’s a probation officer or what he is, but we’re going to be talking about incorporating e-mentoring [in his work].”

The success of E-Connect was frequently mentioned by the teachers and mentors. One teacher noted how pleased he/she was with the outcome, stating, “The students complained rather frequently about ‘having to write’ another email, but at the end of the program, during our final visit from the mentors, my students told reporters that it was a very worthwhile program and they would do it again. That was a pleasant surprise for me,” while another said, “Keep it up; it’s a great idea/program!”

Another teacher talked about expanding to more sites because of the potential E-Connect has to support students’ learning, stating,

“There are a lot of kids who could use the help and I think it’s real nice. Maybe if they did it in more places, because I think it’s nice how they do take their time out to help kids out and guide. Some kids don’t have people to talk to like that. Through doing that, that could be somebody for somebody to talk to and learn something from. In my eyes, they could learn something from them in the five or six weeks of e-mentoring.”

One teacher noted the opportunity the program provided to connect with the community, writing, “The e-mentoring program was a marvelous vehicle for connecting with our community. Teachers working outside of the larger school (off-site) tend to become isolated. Branch Out is a transition program with the main objective of integrating students to their community. The e-mentoring program was an integral component of this goal.”

A number of mentors expressed their enjoyment of the experience and their hope it would continue. Typical comments included, “Keep it going. I really enjoyed the process,” “Keep the same. Great program!”

**DISCUSSION AND RECOMMENDATIONS**

In the previous sections we presented the evaluation findings based on the thematic analysis of interview and survey data. We would now like to discuss how those findings related to our overarching evaluation questions:

1. To what extent does E-Connect foster increased student exposure to and knowledge about future career options?
2. To what extent does E-Connect develop students’ academic and life skills?
3. To what extent does E-Connect align with other career- or employment-focused programs that serve students with disabilities?

**Evaluation Question 1: Increased exposure to and knowledge about future career options?**

There was considerable evidence that E-Connect increased student exposure to and knowledge about future career options. In their interviews students consistently mentioned the opportunities E-Connect provided to explore new careers and gain exposure to the world of work. Students specifically noted that the face-to-face meetings at their mentor’s workplaces gave them a chance to visit
businesses and learn about not only their mentor’s job but also about other employment possibilities in companies such as the Mayo Clinic and Medtronic. Many students stated they had not had these types of experiences previously. Students also expressed their appreciation for their mentors providing information and resources on career and postsecondary education alternatives.

Teachers, mentors, and the regional coordinators also noted the career exposure opportunities E-Connect allowed the students. For example, one teacher said, “This experience was very meaningful to me as an educator since it allowed me to watch my students expand their mind and ideas about employment based on connecting with adults in the work world.”

**Evaluation Question 2: Developed students’ academic and life skills?**

Similarly there was evidence that E-Connect supported the development of students’ academic and life skills. Students gave numerous examples of their increased academic abilities, including learning to write emails, better overall writing skills, and improved grades. Students also talked about learning skills from their mentors that are critical to gaining employment, such as resume writing and job interviewing techniques. A majority of students talked about life skills they gained from their mentors such as being organized and staying open-minded. They expressed their appreciation for the opportunity to connect with an adult who had the ability to help them learn new things in new ways. One teacher commented that his/her students asked their mentors questions that he/she was sure “they wouldn’t share with other adults in their life.” Teachers also noted their student’s increased English skills and literary engagement from participating in E-Connect.

*Recommendation for Evaluation Questions 1 and 2: E-Connect has demonstrated its potential to provide genuine career exploration experiences, enhance career readiness skills, and improve academic skills for students with disabilities. Program participants—teachers, mentors, students, and coordinators—shared several ideas for strengthening those outcomes in future implementations, such as more contact between the students and mentors, improved technology, and additional curriculum, of which many should be implemented.*

**Evaluation Question 3: Alignment with other career- or employment-focused programs that serve students with disabilities?**

While alignment with other programs was often discussed in general, there did not appear to be any specific program activities planned that would have supported those connections with other programs. However, both teachers and regional coordinators reported that they thought this was an important goal that should be included in any future implementations of E-Connect. Combining e-mentoring with existing transition programs or as part of a statewide career development model was discussed as a logical next step by the regional coordinators and teachers. The regional coordinators also discussed incorporating E-Connect into summer and afterschool programs and working with agencies other than schools such as juvenile justice.

*Recommendation for Evaluation Question 3: E-Connect should be combined with other programs that serve students with disabilities career exploration. Existing transition programs, a statewide*
career development model, and afterschool and summer programs are a few of the potential places where E-connect could be incorporated to further support students’ with disabilities exposure to employment options and development of workplace skills.

In closing, our evaluation also identified three factors that were crucial to the successful implementation of E-Connect. First, a strong personal connection between the mentor and the student was an essential mechanism through which the positive learning experiences of the student occurred. Students consistently noted their appreciation of the relationship that was developed through the emails and face-to-face meetings, and the learning that was fostered through their relationship with their mentor. As one student said, “The best part was getting to know the other person,” while another commented, “To get to talk with the people over each week, and listening to what they...had to say. Not only that, but what they could help us with, help us learn, or what we’d need to learn for the future.” However, when the relationship did not materialize as expected, students expressed their frustration. More than one student said “No” when asked if they had a relationship with their mentor. This lack of an authentic relationship weakened the learning and positive experiences for the student. As one student said, “If they are not going to [respond to emails], it is a waste of time.” Comments from mentors also supported the importance of this relationship to the success of E-Connect, noting it was what they liked best about the program. Teachers and regional coordinators also commented on the positive impact the relationship had on the students.

Recommendation: All mentors should make a commitment to participate fully (i.e., consistently engage with the student(s) via email throughout the duration of the program and attend the face-to-face meetings). Coordinators need to ensure that the mentors understand the importance of their consistent participation before they are assigned a student.

Second, implementation of E-Connect varied depending on the teacher’s level of experience and school support. Some teachers found the curriculum easy to use, whereas others struggled to fit it into their classroom plan. Some mentors reported that they felt the program needed more structure. The coordinators provided training and ongoing technical assistance but were not always able to deliver exactly what was needed in each site.

Recommendation: Technical assistance needs to be tailored to the needs and experience level of the school staff. For example, some teachers are able to implement without a lot of support and others require more intensive help from the coordinator.

Finally, it was clear that some type of coordination – either at the state or regional level – was necessary. Teachers stressed that they would not be able to devote the time and effort needed to develop and sustain the relationships between the businesses and schools that are essential to a successful program. They also noted their appreciation of the technical assistance they received from the coordinators and the importance of such support to a well-run program. The regional coordinators also expressed the importance of having an overall coordinator to successful program development and implementation, with one stating, “Recruiting people was time-consuming, but not difficult. That’s going
to be the part that teachers are going to have a hard time with if there’s not a coordinator or someone who takes it on—that getting out there and recruiting businesses. That might be a challenge as far as it succeeding in the future.”

Recommendation: Ensure that the role of a coordinator is part of any E-Connect program implementation.

REFERENCES


