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# Digital Transition Portfolios for Secondary Students With Disabilities

Jenn Black



## Keywords

digital, technology, transition, portfolios, secondary, students, disabilities, self-advocate

Transition services for secondary students with disabilities are defined by the Individuals with Disabilities Education Improvement Act (IDEA; 2004) as a coordinated set of activities contained in a results-oriented process to improve educational and functional outcomes. For secondary students with disabilities planning to go to college, Pierangelo and Guiliani (2004) outlined some transition-specific activities starting 5 years prior to high school graduation. Hartnell-Young, Smallwood, Kingston, and Harley (2006) also described specific activities associated with transition, but in terms of distinct phases such as school-to-college, school-to-employment, college-to-employment, or employment-to-graduate study. Digital portfolios offer a technology strategy to support the development of self-advocacy skills for students with high-incidence disabilities as they transition through their secondary education.

## Issues That Impact Transition for Students With Disabilities

### Employment

Students with disabilities who graduate high school and enter the workforce must be prepared for the basic expectations of

employers. For employers, the concept and term *learning disability* is nondescriptive and confusing because the disability is not visible, so the expectation is students with high-incidence disabilities will interact like a typical employee and self-advocate (Gerber & Price, 2003). The employee must be able to self-advocate by explaining the specifics of the disability and relating it to necessary training or on-the-job accommodations.

### Postsecondary Education

The college experience for students with disabilities is vastly different from high school. In high school, special education services and accommodations are provided as per IDEA (2004) regulations. However, IDEA does not apply to postsecondary settings. Consequently, individualized education programs (IEPs) do not transfer after high school graduation. Services and accommodations are provided as per Section 504 of the Rehabilitation Act (1973) and the Americans with Disabilities Act (ADA; 1990) if the college student

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self-advocates through disclosure of the disability and makes a formal request for accommodations with the campus disability services office (Madaus, 2005).

## Transition Planning and Preparation

The most popular strategy used to prepare secondary students with high-incidence disabilities for life after high school is one in which the student attends, contributes to, and assumes some responsibility for the IEP and transition plan (Martin, Van Dycke, Christensen, et al., 2006; Martin, Van Dycke, Greene, et al., 2006; Mason, Field, & Sawilowsky, 2004). However, waiting for an annual meeting during high school does not offer enough time or opportunity to practice the skills of self-advocacy. Specific technology interventions offer another method to provide students with disabilities more opportunities to practice self-advocacy skills (Lancaster, Schumaker, & Deshler, 2002).

A framework of self-advocacy proposed by Test, Fowler, Wood, Brewer, and Eddy (2005) involves four distinct areas: (a) knowledge of self, (b) knowledge of rights, (c) leadership, and (d) communication. Knowledge of self is described as the student with a disability being aware of and able to explain the specific nature and characteristics of his or her disability based on comprehension of personal strengths, needs, interests, preferences, and learning style. Secondary students with high-incidence disabilities must be able to explain their need for accommodations in the workplace and college classroom. Knowledge of rights means the student understands his or her rights, responsibilities, and provisions according to federal legislative guidelines. Before graduating high school, students with disabilities must understand the difference between the protections and provisions of IDEA (2004) compared to the rights and responsibilities of Section 504 of the Rehabilitation Act (1973) and the ADA (1990). The leadership area in the self-advocacy framework refers to the student with a disability learning the roles and dynamics necessary for involved and successful functioning within a group. Students with high-incidence disabilities who are active participants in their IEP development gain opportunity to practice leadership and self-advocacy skills. Also, the communication area of the self-advocacy framework involves the student in learning and using skills associated with effective communication, such as active listening, negotiation, body language, and assertiveness. Students with disabilities need effective communication skills to function as their own advocate.

## Assistive Technology

*Assistive technology* is defined as any item used to increase, maintain, improve, or assist with the functional capabilities of a child with a disability (IDEA, 2004) and must be

provided if determined necessary for the student to benefit from special education services. One intervention that used assistive technology to specifically foster self-advocacy skills was found to be effective for secondary students with learning disabilities and emotional disturbance (Lancaster et al., 2002). This intervention was designed to validate a hypermedia program by comparing teacher-led self-advocacy skills instruction with an interactive hypermedia program for self-advocacy skill instruction. The researchers discovered two findings: (a) Students with learning disabilities who used the program required less direct instructional time from the teacher concerning self-advocacy, and (b) the hypermedia program was just as effective as teacher-delivered instruction for teaching the self-advocacy strategy. Kotzer and Margalit (2007) used an electronic self-advocacy intervention to gauge the perceptions of students with learning disabilities about their school-related levels of competence. Results indicated student participation with the *e-self-advocacy* intervention enhanced their perceptions of competence. Such outcomes support the use of assistive technology to facilitate self-advocacy skill development for secondary students with learning disabilities and emotional disturbance.

Multimedia tools have been found to boost student motivation and participation with academic learning as well (Duschene, 1998; Skouge, Kelly, Roberts, Leake, & Stodden, 2007; Wissick, 1996). When students have the opportunity to use technology to demonstrate their abilities, interests, and progress, they tend to take more ownership of their learning. Bowser and Reed (2007) developed a student handbook for the selection and application of assistive technologies for students with disabilities. The handbook guides students with disabilities through the process of choosing and using assistive technologies based on their specific needs, strengths, and preferences. Such interventions suggest technology can be an effective strategy to bypass limitations imposed by characteristics of a disability (Lewis, 1998), provide opportunities to practice self-advocacy, and increase student motivation to learn.

## Using Digital Transition Portfolios as a Strategy to Promote Self-Advocacy

One strategy to promote and teach self-advocacy skills is to use a digital transition portfolio. When secondary students with high-incidence disabilities participate in their transition and educational planning meetings as active members with responsibilities, they are more motivated (Skouge et al., 2007). Promoting activities associated with the development of a digital transition portfolio in and of itself is a strategy for supporting the development of self-advocacy skills by providing students with opportunities to practice being self-determined and functioning as their own advocate. When

**Table 1.** Steps for Developing Digital Transition Portfolios

| Student Actions  | Teacher Actions  |
|--|--|
| 1. Decide purpose and intended audience  | 1. Ask guiding questions   |
| 2. Collect documents, work samples, video/audio clips, and photos as portfolio artifacts | 2. Assist in document collection   |
| 3. Create presentations and graphics, scan existing documents to create digital versions | 3. Teach necessary skills  |
| 4. Select artifacts to include in the portfolio  | 4. Allow the selection   |
| 5. Organize artifacts according to Step 1  | 5. Assist based on knowledge of student: meaningful words, assistive technology needs, and ease of use |
| 6. Prepare to share the portfolio during Individualized Education Program (IEP) meeting  | 6. Teach IEP procedures and information  |
| 7. Present portfolio at IEP meeting  | 7. Observe   |
| 8. Evaluate portfolio using rubric criteria  | 8. Teach rubric criteria   |
| 9. Reflect about the contents, organization, and presentation of the portfolio           | 9. Ask open-ended questions  |
| 10. Revise portfolio according to outcome of evaluation and reflection                   | 10. Assist as needed   |
| 11. Distribute portfolio or chosen contents as deemed appropriate                        | 11. Teach decision-making skills   |
| 12. Update the portfolio at least once per school year                                   | 12. Allow class time   |

students with disabilities determine the content and method of organization, prepare the artifacts, and present the portfolio, they demonstrate the self-advocacy skills outlined by Test et al. (2005). The information collected in a digital transition portfolio is similar to a paper-based portfolio in that the information is specific to the student regarding demographic data, suggestions for educational programming, ideas for accommodations, recommendations for physical needs, any medications/allergies, problem-solving techniques, positive behavior support plans, learning strategies, and notes from the members of the IEP team (Demchak & Greenfield, 2003).

### Portfolio Development

Given the current availability of technology in education, the future of digital portfolio development is very promising. Web-based portfolios offer another option for secondary students with high-incidence disabilities to organize and display their portfolio contents using technology. However, web-based portfolio contents may not be as secure and confidential as digital portfolio contents stored on a CD, DVD, or USB flashdrive. A portfolio created as a website may also be more time-consuming during the initial stages of development or require additional security protocols and server space. Advantages of digital portfolios include (a) more compact than bulky paper-based portfolios, (b) flexible storage and portability options, (c) demonstration of technological skills, and (d) the use of the creative process as a strategy to practice self-advocacy skills as described by Test et al. (2005). Developing a digital transition portfolio is an

ongoing process that involves multiple steps. Table 1 lists the steps involved in the development of a digital transition portfolio.

The initial development requires the student to define the purpose of the digital portfolio (Carothers & Taylor, 2003). The questions students should consider are as follows:

1. Will the portfolio be used for job or college interviews?
2. Does the student want to use the digital transition portfolio as a showcase of all skills or just the skills specific to the IEP?
3. Should the portfolio serve as a cumulative collection of personal data or demonstrate student reflection and progress?

After defining the purpose, the student needs to begin collecting and creating the materials for the digital portfolio. As the student collects and creates the materials, it will be necessary to decide how to organize the content.

**Content.** With more and more documentation being stored in digital format, hardcopy portfolios and cumulative school files can be converted (i.e., scanned), created, and stored in a digital transition portfolio (Heath, 2005a). Portfolio information guides and forms that were previously used to develop hardcopy portfolios can be applied to the development of digital transition portfolios. Suggested contents of a digital transition portfolio for secondary students with disabilities are listed in Table 2. The list is not meant to be exhaustive or applicable to every student; however, the items listed should serve as a starting point for the collection of artifacts

**Table 2.** Suggested Contents for Digital Transition Portfolios

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|   |
|---|
| Current IEP   |
| Transcripts   |
| Documentation of eligibility for special education services and accommodations    |
| List of typically used accommodations   |
| List of typically used assistive technologies                                     |
| Letters of recommendation from coaches, club leaders, supervisors, teachers, etc. |
| Information about medications or allergies  |
| Behavior support plans  |
| Information about primary mode of communication                                   |
| Work samples related to intended career or college major                          |
| Video clips to demonstrate functional skills in a typical context                 |
| Photos/videos of completed projects or tangible products                          |
| Presentations   |
| Attendance records  |
| Test scores   |
| Homework samples  |
| Assignment samples  |
| Writing samples   |
| Student explanation of learning style, likes and dislikes, needs, and preferences |
| Transition plan   |

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(Brinckerhoff, 1996; Demchak & Greenfield, 2003). A minimum collection of artifacts would include disability-specific information to provide the next group of teachers with the basic background knowledge about instruction and learning for a particular student.

**Organization.** The manner in which the student organizes the selected contents must be based on the intended purpose of the digital transition portfolio. Consideration must be made concerning the display of the contents for potential college/job interviews, scholarship applications, internship applications, and IEP or transition meetings. Additionally, the final organization of the digital transition portfolio will serve as an example for training parents, teachers, and job coaches of the capabilities of the student with a disability. The student should organize the contents to reflect personal needs and preferences regarding access to technology; portability; and the ease with which information is retrieved, duplicated, and/or distributed. Digital transition portfolios need to be accessible and portable to highlight the technological capability of the student.

**Preparation.** Digital transition portfolios can be assembled during resource or study skills classes (Boerum, 2000) and evaluated with rubric criteria (Heath, 2005b) pertinent to artifact selection, organization, use of multimedia, and reflection. A sample of rubric criteria is provided in Figure 1. The

purpose of the rubric is to provide feedback rather than grade the final product of the portfolio. When evaluating digital transition portfolios with students as part of a larger instructional unit, it may be necessary to consider the principles of accessible and effective e-learning (Boone & Higgins, 2007). Students with disabilities may organize the contents of their digital transition portfolio as a series of folders and files on a laptop computer, USB drive, CD, or a digital music player (e.g., iPod). Students must consider the method for naming files as they organize the electronic folders and files. For example, students may name the files by selecting words that are personally meaningful. Students should organize their digital transition portfolio contents by specific file type, such as Word documents, photos, graphics, video/audio clips, and presentations. Other suggestions for organization include arranging digital files and folders by date, project type (Wiltz, Watson-Thompson, Cawley, & Skelley, 2007), IEP goals, academic content, and career/vocational exploration (Youshock, Gilgannon, Karpinski, & Matukaitis, 1995).

**Necessary equipment.** Tables 3 and 4 outline some of the hardware and available portfolio software necessary for students with disabilities to develop a digital transition portfolio. Additionally, the student-specific assistive technology devices (e.g., screen readers, switches, voice recognition software) must be available for students with disabilities to create their digital transition portfolio. When assistive technologies are incorporated with the digital transition portfolio, the capabilities of the student are positively represented (Lewis, 1998).

## Conclusion

Digital transition portfolios are another strategy for adolescents with disabilities to function like their typical peers. Oftentimes special education teachers and parents of students with disabilities will assume and maintain the responsibility for their students' transition plan and portfolio contents. By teaching students with disabilities to develop their own transition portfolios via digital media, they have the opportunity to practice the self-advocacy skills outlined in the framework provided by Test et al. (2005) and be more prepared for annual IEP meetings (Martin, Van Dycke, & Christensen, 2006; Martin, Van Dycke, & Greene, 2006). When secondary students with disabilities develop, maintain, and share their transition portfolio, the likelihood of personal accountability for academics, pride in the products developed, and sense of ownership increases, while the dependence upon teachers and parents decreases. Digital transition portfolios have the potential to serve as another strategy to further the development of self-advocacy for secondary students with disabilities.

| <b>Criteria</b>         | <b>Above Standard</b>              | <b>At Standard</b>                  | <b>Below Standard</b>                      |
|-------------------------|------------------------------------|-------------------------------------|--|
| Selected Artifacts      | All relate to purpose and audience | Most relate to purpose and audience | Few or none relate to purpose and audience |
| Contents                | All meaningful to the student      | Most are meaningful to the student  | Few or none relate to purpose and audience |
| Organization            | All portable and accessible        | Mostly portable and/or accessible   | Not portable or accessible                 |
| Multimedia Applications | All enhance the portfolio          | Most enhance the portfolio          | Few or none contribute to the portfolio    |

**Figure 1.** Sample rubric to evaluate digital transition portfolios

**Table 3.** Necessary Hardware for Developing Digital Transition Portfolios

| Hardware   | Example  | URL for Price  |
|--|--|--|
| Computer with USB, video, audio ports and CD or DVD burner (preferably laptop) | Apple MacBook Pro Laptop<br>Dell Inspiron Laptop         | <a href="http://store.apple.com/us">http://store.apple.com/us</a><br><a href="http://www.dell.com">www.dell.com</a>      |
| Printer (preferably color)   | HP Office Jet Mobile Printer<br>Brother Color All in One | <a href="http://www.hp.com">www.hp.com</a><br><a href="http://www.officedepot.com">www.officedepot.com</a>               |
| Scanner (optical character reader)   | Epson Perfection Flatbed<br>Xerox Digital Flatbed        | <a href="http://www.epson.com">www.epson.com</a><br><a href="http://www.officedepot.com">www.officedepot.com</a>         |
| Digital Still and/or video camera  | Panasonic Digital Camcorder<br>Flip Digital Camcorder    | <a href="http://www.panasonic.com">www.panasonic.com</a><br><a href="http://www.target.com">www.target.com</a>           |
| Microphone   | Logitech USB Desktop<br>Listening Concepts               | <a href="http://www.officemax.com">www.officemax.com</a><br><a href="http://www.shop4frys.com">www.shop4frys.com</a>     |
| Blank CD, DVD, or USB flashdrive   | SanDisk Cruzer Titanium<br>USB Flashdrive<br>DVD Spindle | <a href="http://www.bestbuy.com">www.bestbuy.com</a><br><a href="http://www.circuitcity.com">www.circuitcity.com</a>     |
| Student-specific assistive devices   | Access switches<br>Touch screens                         | <a href="http://www.abledata.com">www.abledata.com</a><br><a href="http://www.TouchScreens.com">www.TouchScreens.com</a> |

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**Table 4.** Necessary Software for Developing Digital Transition Portfolio

| Software                  | Example                                      | URL for Price                            |
|---------------------------|--|--|
| Word documents            | Microsoft Word<br>WordPerfect Office         | www.microsoft.com<br>www.corel.com       |
| Presentations             | Microsoft PowerPoint<br>Apple iWorks Keynote | www.microsoft.com<br>www.apple.com       |
| Photo editing             | Adobe Photoshop<br>Paint.Net                 | www.journeyed.com<br>www.get.paint.net   |
| Video editing             | iLife<br>Pinnacle Studio 12                  | www.journeyed.com<br>www.pinnaclesys.com |
| Student-specific software | Kidspiration<br>Dragon NaturallySpeaking     | www.kidspiration.com<br>www.nuance.com   |
| Electronic portfolios     | Portfolio Assessment Kit                     | www.superschoolsoftware.com              |

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