Chapter 17
Developing Electronic Portfolios

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ABSTRACT

Portfolios are widely used in many professional and academic areas; however there is minimal documentation for the use of portfolios by Assistive Technology / Augmentative Alternative Communication (AT/AAC) specialists. Assessment of AT/AAC progress is often difficult to document due to the limited capabilities of the written output. Specific AT/AAC systems are tailored to individual clients and may range from a low-tech communication book to a sophisticated hi-tech device/computer with specialized access techniques. As individuals transition to new opportunities, it is difficult to show documentation of progress or visually capture specific device/computer set-ups for replication. This chapter encourages service providers to develop electronic portfolios to assist families, future educators, and therapists to become familiar with the best practice AT techniques and strategies used for individuals with complex physical and communication needs.

INTRODUCTION

Documentation of clinical and educational issues for individuals with Assistive Technology / Augmentative and Alternative Communication (AT/AAC) needs is problematic both for the professionals writing those reports, and the families trying to make sense of the reports they receive. First, it is difficult to describe and document different aspects of using AT/AAC with students who have complex physical needs and communication impairments. There are three main issues relating to difficulties in adequately describing: (a) important student characteristics, (b) AT/AAC tools and strategies, and (c) skill level and progress. Furthermore, documents intended to convey this information are generally lengthy and complex, making it likely that the intended audience (e.g., parents and teachers) fail to read or understand parts of the document.

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For individuals with complex physical and communication challenges, the documentation of clinical and educational issues serves many critical functions. Such documentation is used to: (a) inform families of relevant issues, (b) obtain funding for services, and (c) convey important programmatic information to a wide variety of professionals serving these individuals. Current methods of clinical/educational documentation, such as progress charts and reports, are inadequate for individuals with complex needs. This is due to several factors. One problem is that the information is not easily conveyed in written form. Some information is better presented visually as opposed to linguistically—visual illustration of the no-tech communication that is used (e.g., manual signs, gestures, and signals), representational and organizational system used for the presentation of vocabulary on a low- or high-tech communication system, the form of accessing (e.g., direct or indirect access), the switch or device mounting, or other required AT. Secondly, written reports, which do provide adequate detail on the individual's AT system, are generally lengthy and complex, making them difficult and time-consuming to digest. These reports are often not meaningful to the target audience (e.g., families and other professionals) and they tend to not read the report or read only parts of the report. They are often difficult to read, especially when medical and educational terminology is used.

Because AT/AAC strategies and tools are often visually complex and quite dynamic, it is difficult to accurately describe them. Individuals who use AT or AAC have difficulty communicating their own device set-up or mounting system. AT/AAC strategies and materials may be described; however, it is difficult to visualize the exact set-up of materials or the individual who uses AAC application of them. Often, there are a numerous other strategies that are implemented without written documentation. If the individuals utilize a voice output communication aid (VOCA), the devices must be customized to the individuals' specific needs. Angling a device or mounting the device on a table or wheelchair may be a requirement for success. It is difficult to accurately describe what specific tools are needed, what each tool looks like, how materials are constructed, why they are organized in a specific way, and how the individual implements them within their environment. Device mounting onto a wheelchair is specific for each individual who uses AAC and difficult to describe in a report. Wheelchair mounts can be placed on either side of the frame (e.g., right or left of the chair) or angled in numerous directions to provide ease of access for the individuals who use AAC. Accessing a VOCA or other forms of manual communication are often major obstacles that need to be described. Explanation of the exact method of using a direct access, such as using a mouthstick, a headpointer, a laser beam, or pointing with a finger or thumb, can be challenging. Placement (e.g., which side of the head or the exact angle) of each of the accessing devices is critical. An unconventional method of pointing for direct access (e.g., using a finger other than index or thumb) must be addressed. Other alternate access methods, such as eye gaze or scanning, offer other dilemmas for presenting an accurate description in a written format.

Written expression is limited when technical issues—such as specific seating and positioning problems, individualized accessing dilemmas, the use of idiosyncratic gestures and manual signs, and the specific placement and usage of AT—are involved. This is especially true when using educational documents to explain technical directions, which are best accompanied by diagrams and/or pictures to explain each step. When writing diagnostic and progress reports for individuals who use AT, pictures and diagrams are not the standard procedure. This problem may exist due to a variety of reasons. One reason is the lack of availability of equipment for producing diagrams or pictures. Another reason is the accessibility of equipment for developing and editing video clips that would provide a visual documentation

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