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Benchmarks for Assessing the Technological Literacy of a Highly Qualified Paraprofessional

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Abstract: Under the provisions of the No Child Left Behind Act of 2001 (NCLB) all instructional paraprofessionals working in a program supported under Title I, Part A, are required to meet the federal definition of being highly qualified by the end of the 2005-2006 school year. In meeting the NCLB requirements, the capacity to support teaching and learning activities in the content areas must be demonstrated. As school districts incorporate increasing amounts of technology into their classroom curricula, the role of the paraprofessional must keep pace with new pedagogical methods for using technology to support student learning. Through the development of technological literacy, the paraprofessional can create an authentic educational experience that enhances learning for every student. This model framework suggests benchmarks for establishing performance standards in the area of computer technology for paraprofessionals. Core competencies for supporting educational content areas and maintaining home-school relations are also included.

Meeting the NCLB Requirements

The No Child Left Behind Act of 2001 (NCLB) requires that all teachers and paraprofessionals, demonstrate competency in the core subjects that they teach. However, the certification requirements, as well as specific measures of competency, are determined by each state (USDOE, 2002). Under Title I, Section 1119b, of the Elementary and Secondary Education Act (ESEA), local education agencies that receive federal assistance shall ensure that paraprofessionals who are hired after the enactment of the NCLB meet a rigorous standard of quality (USDOE, 2003). Criteria that is currently used to assess a new paraprofessional's quality has been mandated through the NCLB and includes; the completion of at least 2 years of coursework at an institution of higher learning, an associate's degree or higher and a passing grade on a state or local academic assessment. Paraprofessionals who are working in schoolwide programs must meet these requirements, regardless of the source of funding that is used to pay their salaries. Paraprofessionals who are working in targeted assistance programs and are paid directly with Title I funds must also meet these new requirements.

Under the provisions of the NCLB, existing paraprofessionals must meet the same requirements for teacher quality as new hires but the target date for their compliance has been extended to the end of the 2005-2006 school year (USDOE, 2003a). The requirement of two years of coursework, an associate's degree, or completion of a formal assessment does not apply to paraprofessionals who are involved solely with translation, personal care services, library or clerical assistance and those conducting parental involvement activities. This regulation only applies to those paraprofessionals who have been assigned instructional responsibilities.

Role of Paraprofessionals in the P-12 Classroom

Paraprofessionals are defined by the NCLB as individuals who perform instructional duties under the direct supervision of a teacher (USDOE, 2003). Paraprofessionals commonly assist students in special education, English as a Second Language (ESL), Title I, and early childhood education programs, by providing them with support

services a general classroom setting. The support services may include monitoring behavior, modifying instruction and materials, safety issues, and technical or medical assistance. Additional duties that a paraprofessional can perform include; one-on-one or small-group tutoring for students, assisting a teacher with classroom management, providing assistance in a computer lab, library or media center, conducting parental involvement activities or acting as a translator (USDOE, 2003).

In order to help each student succeed with academics and social life, paraprofessionals must be viewed as an integral part of the instructional team. It is vitally important that schools foster the conditions that enable paraprofessionals to; receive professional development training, learn the duties required of them, receive evaluation that helps them excel in their positions, and become more aware of the important role that they play as a member of the instructional team.

Technological Literacy

Technology-based resources have expanded the sources of instruction for students both in and out of the classroom. Many students are participating in online courses while others may be engaged in computer-based training or project-based learning that enhances the general curriculum. According to the National Education Association (2003), parents and teachers agree that technology must remain an integral part of the educational process in order for today's students to fully succeed in the 21st century workforce. There is a growing body of evidence that demonstrates how the use of technology for learning can lead to increased levels of student achievement (Page, 2002; Verdi, Crooks & White, 2002-2003, Winter) and there is no doubt that schools will continue to integrate technological resources for supporting the content areas.

The influx of technology into the educational system has required that paraprofessionals adapt to new ways of thinking, teaching, and learning. Technology can serve as the primary provider of direct instruction or be used to reinforce, enhance, or extend the teacher's classroom instruction. Paraprofessionals who gain technological literacy can provide appropriate language and academic support services. These services often include the appropriate use of curricula and assessments that are modified in meeting the requirements of a student's individualized instructional plan (IEP).

Highly Qualified Paraprofessionals

The NCLB requires that all students reach high standards of academic excellence by end of the 2013-2014 school year (USDOE, 2002). These standards call for students to meet or exceed levels of proficiency in the content areas of reading, language arts and mathematics. In attaining this goal, paraprofessionals must gain technological proficiency that will enable them support teaching and learning in the core academic subjects where they provide direct academic instruction. In addition to their academic responsibilities, paraprofessionals must also carry out other duties that include; involving parents as full partners in their child's education and serving on advisory committees that assist school personnel with decisions that relate to academic services.

This model framework suggests benchmarks for establishing performance standards in the area of computer technology for paraprofessionals. Core competencies for supporting educational content areas and maintaining home-school relations are also included. Benchmarks are defined as measurable goals that represent major milestones within an educational program. The use of benchmarks, standards and competencies can guide the sequencing of coursework and serve as a scaffold for curricular content. The data gathered through benchmarking studies can enable organizations to compare their performance on specific variables for the purpose of identifying, understanding, and adopting outstanding best-practices.

The *National Educational Technology Standards and Performance Indicators for Teachers* (NETS) currently serve as a foundation for the development of content and performance standards in the area of K-12 technology integration for teachers (ISTE, 2002). Paraprofessionals who are supporting classroom instruction in the content areas must gain a basic level of proficiency in the NETS competencies. However; the core competencies of state and national standards must be redesigned in order to align with the role and responsibilities of paraprofessionals in the field of education.

Technology Benchmarks

In this section, we will offer recommendations for benchmarks that can be used to assess the technological literacy of paraprofessionals. The benchmarks are measured through a series of Paraprofessional Technology Performance Standards (PTPS) that are aligned with the NETS for teachers (ISTE, 2002) and students (ISTE NETS Project, 2000-2002). The PTPS (Fig. 1) identify a common core of skills that should be required of all paraprofessionals who perform instructional duties in a school-wide program. Paraprofessionals who have mastered these standards will possess the knowledge and skills that will enable them to;

- Support core curricular content areas by assisting students with technology tasks;
- Model ethical and legal behaviors while using technology;
- Demonstrate the effective use of technology for communicating with parents and the community; and
- Demonstrate classroom management techniques that will assist them in their efforts to better support teachers in the learning environment.

The degree to which paraprofessionals currently use and understand technology for instructional practice can be measured through the use of the PTPS matrix (Fig. 1). In the header section of the matrix, the paraprofessional will enter the name of the school along with the district where the school is located. The paraprofessional's name and the date will follow. Information is also required for the purpose of establishing the individual's school-wide responsibilities. The categories for a paraprofessional's assignments include; instructional support services, individual tutoring, translation duties, assignment to a computer lab, library or media center and parental involvement activities. Current responsibilities can be indicated by checking all of the boxes that apply. Finally, paraprofessionals are requested to indicate whether or not they are new to the profession. Those with less than three full years of experience would be considered as being new.

The PTPS matrix will be used to demonstrate that the paraprofessional is highly qualified in the area of technology. A response of "YES" to each standard would indicate that the individual had achieved a level of proficiency in that area. In order to be considered as being highly qualified, it is expected that by the end of the 2005-2006 school year and beyond, the paraprofessional will have completed each of the benchmarks. The matrix can depict a paraprofessional's technological profile according to the following four specific benchmarks:

I. *Technology and Digital Literacy* provides a mastery of the basic computer skills and software that are needed for assisting students with problem solving and research. An introduction to the use of PDAs, multimedia projectors, digital cameras, and other digital equipment for supporting instruction is included.

II. *Legal and Ethical Professional Practice* involves Acceptable Use Policies and Internet Safety issues. Policies concerning digital student records and methods for ensuring the health, safety and well-being of students as they use technology are emphasized.

III. *Information and Communication Technologies* provides an overview of the basic skills and knowledge for using technology to facilitate instruction, communicate, collaborate, locate information and conduct research. The focus of this benchmark is on the use of desktop publishing software, email, the Internet, course management systems, presentation software, and other technologies for communicating with teachers, students and parents/guardians.

IV. *Classroom Management* introduces techniques that address a variety of learning styles as well as incorporating a wide range of community and technology resources. This goal can be achieved through a variety of computer technologies that include software, databases, multimedia tools and the Internet.

The PTPS matrix can be used by administrators for compiling data that can be used to report annual yearly progress (AYP) and the qualifications of paraprofessionals who are employed in the school. Based on the overall results of the PTPS matrix, an administrator can recommend an action plan that will enable the paraprofessional to obtain additional professional development training in specific benchmark areas.

Conclusion

The No Child Left Behind Act (USDOE, 2001) has raised the requirements for the employment of paraprofessionals in P-12 schools. As school districts incorporate increasing amounts of technology into their classroom curricula, the role of the paraprofessional must keep pace with new pedagogical methods for using technology to help children reach their full academic potential. Standards and benchmarks that profile the technological literacy for paraprofessionals can provide a framework that will enable these individuals to receive professional development training and coordinate their objectives with the school's mission statement.

In order to accomplish this task, competencies must be mastered for guiding student learning through the use of online resources, personal productivity software, educational software, and assistive technologies. The use of technology for promoting parental involvement and increasing home-school communication are also suggested as a means of complying with NCLB provisions (USDOE, 2001). Parents who are informed about the technology that is being integrated into their child's education are able to reinforce the instruction that their child receives at school. Through the development of technological literacy, paraprofessionals can create an authentic educational experience that not only enhances learning for every student but can also improve home-school relations.

Paraprofessional Technology Performance Standards (PTPS)

School Name: _____ School District: _____

Name: _____ Date: _____

Responsibilities: (Check all that apply)

- ❑ Instructional Support Services
- ❑ Translation Duties
- ❑ Library or Media Center
- ❑ Individual Tutoring
- ❑ Computer Lab
- ❑ Parental Involvement Activities

Status: (Check one)

- ❑ New
- ❑ Experienced

This PTPS matrix will be used to demonstrate that the paraprofessional named above is "highly qualified" in the area of technology. A response of "YES" to each standard indicates proficiency. Please attach full documentation.

Standard Description	Standard met	
	YES	**NO**
I. TECHNOLOGY AND DIGITAL LITERACY		
I.A. Demonstrate a basic knowledge regarding the operation of computer and multimedia systems for instructional support.		
I.B. Demonstrate a basic knowledge of the methods for assisting students in the use of calculators, laptop computers, PDAs, digital cameras, assistive technologies or other emerging technologies.		
I.C. Apply a basic knowledge of the use of digital technologies in the classroom.		
I.D. Use productivity software for supporting the content areas and lifelong learning.		
I.E. Assist students in the use of educational software for enhancing instruction.		
II. LEGAL, ETHICAL, AND PROFESSIONAL PRACTICE		
II.A. Assist teachers with school policy concerning Internet Safety procedures.		
II.B. Assist teachers with the implementation of school Acceptable Use Policies regarding email, chat, instant messaging and general computer use.		
II.C. Assist teachers with Internet copyright and plagiarism issues.		
II.D. Assist teachers in providing the equal access of technology to all students.		
III. INFORMATION AND COMMUNICATION TECHNOLOGIES		
III.A. Use technology for communicating with parents/guardians and the community.		
III.B. Assist students in developing information technology and media literacy skills.		
III.C. Assist students in the use of communication technologies for sharing ideas.		
III.D. Demonstrate an awareness of the school Website and its implications for student learning and school/home communication.		
III.E. Assist students with online learning communities and distance learning activities.		
IV. CLASSROOM MANAGEMENT		
IV.A. Use technology to assist teachers in organizing learning activities/materials and maintaining supportive learning environments.		
IV.B. Use technology to assist teachers in documenting student performance.		
IV.C. Use technology to assist the teacher in modifying activities and assessments to support the diverse needs of students.		
IV.D. Assist teachers as they facilitate collaborative learning through technology.		
IV.E. Assist students as they use distance learning and online assessment tools.		

Signed by School Administrator _____ Date _____

Figure 1: A Model Paraprofessional Technology Performance Standards (PTPS) Matrix

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