SETT TECHNOLOGY FRAMEWORK

(*S*tudent, *E*nvironment, *T*ask, *T*ools)

Trish Auletta

St. John's University

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Every structure begins with a frame. Whether it is a house, a bridge, or a business plan, the framework is the skeleton that provides the structural support and shapes what the final product will eventually look like or how it will perform. A physical framework guides a structure. A theoretical framework guides a concept. However, whether physical or conceptual, what all frameworks have in common is that, in providing support and shape, their ultimate purpose is to turn a concept into useful, functional, sustainable product.

All research is based on some type of framework. Research seeks to explore an idea, answer a question, solve a problem, or to support the results of previous research. To be effective and successful, the research needs to be organized. It needs an outline to determine what the purpose of the research is and a framework to determine what information needs to be collected, how it will be collected, how it will be evaluated, and how it will be used. In other words, the framework will turn the research question or theory into something functional.

Many students with disabilities rely on technological supports, called Assistive Technology" to give them an equal opportunity to succeed alongside their mainstream peers. According to Microsoft, Inc., (2015) assistive technology products are designed to provide additional accessibility to individuals who have physical or cognitive difficulties, impairments, and disabilities. These products may include word processors, readers, alternative keyboards, electronic pointing devices, sip-and-puff systems, wands and sticks, joysticks, trackballs, touch screens, Braille embossers, Braille readers, speech recognition devices, and screen magnifiers to name just a few. As technology advances, more and more assistive devices become available.

The challenge then, is to identify students for whom assistive technology is appropriate, and match them to the device or devices that match their unique needs.

The SETT Framework is a guideline for gathering data in order to make effective assistive technology decisions. It is not a school-based assessment tool, but rather a tool that is useful in all phases of decision-making and service delivery. The focus of the SETT framework is to support student participation and achievement (Zabala, Bowser, & Korsten, 2005).

The SETT framework considers four key components:

- *S*tudent – Who might be using the technology?

- *E*nvironment – Where would the technology be used?

- *T*asks – What jobs would the technology need to assist with?

- *T*ools – Which tools might match the student's need, in that environment, with the particular tasks?

All students are unique. The same is true with students with disabilities. Even students with the same, or similar classifications or disabilities are different and have different needs. This makes the SETT framework important when considering technology service decisions.

According to Zabala, Bowser, & Korsten (2005), the SETT Framework begins with the student and evaluates the student's operational, functional, strategic, and social competencies by asking:

- What are the student's specific areas of concern?

- What is it that the student needs to be able to do that is impeded by their disability?

- What are the student's strengths, abilities, interests, and preferences?

- Finally, what are the expectations for the student?

All of these questions are must be addressed before even considering a specific technology. If a student has such poor fine motor control that they can't write, a word processor would only help if their fine motor control were developed enough to manipulate a keyboard. If a visual disability had to so more with visual discrimination rather than pure sight, isolating graphs, charts, and other distractors might help more than enlarging font size. For physical technologies, would the same chair that is appropriate in the classroom be functional in PE, music, or lunch?

"So the questions arise… How can you sort through the plethora of "cool tools' to find the ones that make up the system of tools that is "right" for a specific individual?" (Zabala, 2005)

To help find the right tools, the SETT next examines the student's environment.

- Where would the student be using the technology?

- Who else (support staff) might need to use or access it?

- Are there elements of the environment that would be less suited to one technology than to another?

- Are there elements of the environment that need to be changed to accommodate the technology?

A student with hearing amplification devices may require that tennis balls (or other muffling devices) be places on the legs of the chairs in the classroom so that the sound of chairs scraping on the floors is not uncomfortably amplified.

Tasks are the next concern. We now know the student and the environment, but in order to ensure appropriate service, the SETT needs to ask:

- What specific tasks are required of the student that s/he needs assistance with?

- What specific tasks are required for active inclusion in the identified

  environments?

Lastly, SETT looks at tools. Considering the student, their environment, and the specific tasks they need to perform, what, if any, tools are appropriate to support the student? The tools can include anything from devices, strategies, training, and modifications. In considering tools, the SETT asks:

- Will the student be able to make reasonable progress towards IEP and education

  goals without assistive technology?

- If not, what tools might be appropriate considering the student's needs,

  environment, and tasks.

Finally, the SETT framework calls for a trial, collection of data, and re-evaluation to assure that the assistive technology is doing its intended purpose.

Considering the number of students with disabilities who might benefit from assistive technologies, and the increasing quantity of assistive systems and devices available, the organization provided by a framework like the SETT is necessary for the timely and appropriate needs assessment and delivery of service.

References

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