# Virginia Assistive Technology, Tools, and Strategies: Consideration Guide Instructions and Definitions

## About the Virginia Assistive Technology, Tools, and Strategies: Consideration Guide

This document accompanies the Virginia Assistive Technology, Tools, and Strategies (VATTS): Consideration Guide by providing general instructions and definitions to support Individualized Education Program (IEP) Teams in utilizing the guide in the consideration of assistive technology (AT). The purpose of the VATTS: Consideration Guide is to help IEP Teams consider the need for assistive technology; select appropriate AT devices, services, and resources; and document these AT decisions. The VATTS: Consideration Guide is designed to facilitate a meaningful decision-making process that ensures compliance with regulations as well as the quality indicators related to AT devices and services. While not required, the VATTS: Consideration Guide can help to ensure that the AT consideration process is in line with best practices and fully explores the student's strengths and needs; the environments in which the student lives, works, and plays; the tasks the student will need to complete; and the potential tools that are needed to address challenges. In addition, the VATTS: Consideration Guide extends the conversation beyond assistive technology and includes discussions about other technology tools and strategies that may benefit the student.

**When to use this guide?** The *Regulations Governing Special Education Programs for Students with Disabilities in Virginia* require that in the development, review, and revision of the IEP, the IEP Team shall consider whether the child requires assistive technology devices and services.

*§8VAC20-81-110 F*: Development, review, and revision of the IEP (*34 CFR 300.324(a)*)

The IEP team also shall:

2g. Consider whether the child requires assistive technology devices and services (Virginia Department of Education, 2010).

This guide may be used during an IEP meeting or during a planning team meeting (at any time of the year). Some teams find it helpful to discuss AT considerations toward the end of the IEP meeting after other discussions related to needs have been identified and discussed. Consideration and assessment of AT are ongoing processes that inform instruction and IEP development, and AT should be reconsidered with at least every annual IEP.

**Who uses this guide?** The VATTS: Consideration Guide may be used by IEP Team members as a way to organize and analyze data as part of the AT consideration process. Many school divisions have AT teams or specialists who may be asked to support the team in their consideration process. Educational teams may also benefit from using this guide to structure conversations around assistive technology, including identifying potential AT solutions while preparing for upcoming IEP meetings, reporting progress, and brainstorming possible technology tools and strategies for all students.

## Instructions for Completing the VATTS: Consideration Guide

**Part I**

This section is designed to assist the IEP Team in selecting areas where the student is not making sufficient progress and/or may benefit from the use of assistive technology (either devices or services), other tools (e.g., instructional technology), and/or instructional strategies. Select all areas where the student has IEP goals that may benefit from the use of assistive technology, tools, and/or strategies and/or area(s) where the student is making insufficient progress.

**Part II**

For each area identified in Part I, the IEP Team will consider the student's strengths, areas of growth, and needs; the environments in which the student interacts; and the tasks in which the student engages in each environment. Consider how assistive technology can support the student in developing new skills, strengthen or make progress in developing skills, and build independence in the environment as part of the conversation. Once these areas are identified, the team should consider what assistive technology (devices and/or services), tools, or strategies may be needed by the student to support the identified tasks. Teams should list the areas identified in Part I in the first column of the table in Part II.

The Student, Environment, Tasks, and Tools (SETT) process is an established model for AT consideration and decision-making. The SETT Framework is embedded within the VATTS: Consideration Guide to assist the IEP Team in organizing existing data to help the team make informed decisions about possible assistive technology devices and/or services.

**Part III**

This section provides space for the IEP Team to document a decision specific to each area of need identified in Part I. Teams should list areas identified in Part I and, based on data analyzed from Part II, choose a decision under the Summary of Consideration column for each area from the list provided. More than one decision may be considered and applied for each area of concern.

**Details and Timeline**

This section assists IEP Teams in developing a plan for implementation of the AT, tools, and strategies considered by the team. This includes a detailed plan for the trial of specific assistive technology, educational/instructional tools or materials, instructional strategies, or AT assessment. The team should identify any tasks associated with accessing or trying out the

materials, individuals responsible for providing devices/services, data collection, reporting, and implementation dates. These tasks may or may not include a plan for AT assessment.

**Date the team will meet to review results of trials and/or AT assessment**
If a trial or assessment is recommended, the team should set a date to reconvene and discuss the results of the trials and/or assessment. This review should occur as soon as the data/results will be available to the team to make an informed decision about the AT. Describe the results of the trials and/or assessment including the data that was collected, the analysis of the data, the impact of the AT, and recommendations for next steps including modifying the implementation plan to include any new AT and documentation within the IEP, if appropriate.

## Definition of Terms Used in the VATTS: Consideration Guide

**Activities of Daily Living**
Activities oriented toward taking care of one's own body and activities that are essential for survival and well-being. In the school systems these may be eating, toileting, getting dressed for gym, and mobility around the school (Schell & Gillen, 2009, p. 1153).

**Adaptive Play**
Adaptive play lets a child with limited function in abilities such as movement, speech, eyesight, hearing, comprehension, or communication play more fully (Persels, 2019, para. 2). It may involve customizing toys, using adaptive equipment, accessing assistive technologies, making new ways to play, and using the setting. Play can be adapted for your child at home, in the community, or while in the hospital.

**AIM-VA**
Accessible Instructional Materials Center of Virginia (AIM-VA), funded by the Virginia Department of Education, provides accessible instructional materials to eligible Virginia K-12 students who have an Individualized Education Program (IEP) and are unable to access traditional print. Accessible instructional materials, or AIM, refers to print-based educational materials that are converted into specialized formats required by the IDEA (e.g., braille, large print, audio, and digital text). Accessible instructional materials can positively impact student performance.

**Assistive Technology Assessment**
Assistive technology assessment is a comprehensive and thorough evaluation of the student's needs, their environments, the tasks or goals they are wanting to achieve, and the possible AT tools that may help facilitate these goals (Assistive Technology and Accessible Educational Materials Center, n.d., para. 2). The AT assessment process does not end with tool selection but also includes follow-up and ongoing assessment as tasks and environments change and new tools are developed.

**Assistive Technology Device**
Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of such device (34 CFR §300.5).

**Assistive Technology Service**
Assistive technology service means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device (34 CFR §300.6).

**Assistive Technology in the IEP**
A student's IEP should clearly reflect the AT needed, describe how it will be used, and define the supports required for its use (Pennsylvania Training and Technical Assistance Network, 2021, paras. 6-8). Because appropriate AT devices and services can take various forms for students with broad ranges of academic and functional needs, team members need to understand the various options for thoughtfully considering and including AT in the IEP document. Once considered, as described above, AT devices and services can be appropriately documented in the IEP in several areas. The following sections of the IEP are appropriate locations for documenting AT: special considerations, present levels of academic achievement, transition services, participation in state and local assessments, goals and objectives, related services, supplementary aids and services, program modifications, specially designed instruction (SDI), and/or supports for school personnel. Regardless of where AT appears in the IEP, the IEP document should clearly reflect the AT needed, describe how it will be used, and state the supports required.

**Attention**
Attention is the cognitive ability to focus on a task, issue, or object (Schell & Gillen, 2009, p. 1154).

**Auditory Processing**
Auditory processing includes auditory attention, auditory memory, auditory discrimination, auditory figure-ground, and auditory cohesion (Virginia Department of Education, 2020).

**Behavior**
Assistive technology to support behavior should align with the identified function(s) of any undesired behavior(s) and support context-appropriate behavior and skill development. The AT for behavior may include tools that assist with providing reminders of desired behaviors, self-management, self-regulation, and focusing on the current activity.

**Communication**
Communication is the active process of exchanging information and ideas (American Speech-Language-Hearing Association, 2013, paras. 1-2). Communication involves both understanding and expression. Forms of expression may include personalized movements, gestures, objects, vocalizations, verbalizations, signs, pictures, symbols, printed words, and output from

augmentative and alternative communication (AAC) devices. When individuals communicate effectively, they are able to express needs, wants, feelings, and preferences that others can understand.

**Environmental Controls**
Environmental controls enable individuals with limited mobility to control activities and events within their environment (Disabilities, Opportunities, Internetworking and Technology, 2022). Environmental control units (ECU) enables an individual with mobility impairments to operate electronic devices in their environment through alternative access methods (e.g., switch or voice access). The ECUs can control things such as lights, televisions, telephones, music players, door openers, security systems, and kitchen appliances. These systems are also referred to as electronic aids to daily living (EADL).

**Executive Functioning**
Executive function (EF) is a set of mental skills that help an individual to control their thinking and behavior (Dawson & Guare, 2010). These skills allow an individual to select and achieve goals or to develop problem solutions. Executive function skills include planning, organization, time management, working memory, and metacognition. The EF skills also help individuals guide their behavior toward these goals including response inhibition, emotional control, sustained attention, task initiation, flexibility, and goal-directed persistence.

**Grade**
Grade refers to the student's current grade level, including preschool. When developing a standards-based IEP, the IEP is directly linked to and framed by Virginia's course content Standards of Learning (SOL) for the grade in which the student is enrolled or will be enrolled (Virginia Department of Education, 2016). If a student is transitioning from Part C to Part B between grades, programs, and schools, it is important to involve past and current service providers in this discussion. If this student is of transition age (aged 14-21), it is especially important for these students to learn self-advocacy skills, learn about AT, and identify AT that will help increase their success in post-secondary environments.

**IEP Team**
The IEP Team is the group of individuals who come together to develop a student's Individualized Education Program (IEP). In the context of an IEP meeting, the local educational agency shall ensure that the IEP Team consists of members outlined in §8VAC20-81-110 C (Virginia Department of Education, 2010).

**Math**
Ability to understand and remember mathematics concepts, rules, formulas, basic computation skills, and sequence of operations (Virginia Department of Education, 2021a, para. 4). Math also includes the ability to perform mathematical calculations and notation.

**Mechanics of Handwriting**
Handwriting requires the integration of perceptual-motor processes and cognitive processes (Virginia Department of Education, 2017, p. 26). Some characteristics of students having

difficulty with handwriting may include poor letter formation; letters that are too large, too small, or inconsistent in size; incorrect use of capital and lower-case letters; letters that are crowded and cramped; incorrect or inconsistent slant of cursive letters; lack of fluency in writing; and incomplete words or missing words.

**Organization**
Organization refers to skills in the areas of self-organization, information management, time management, and materials management which are the underlying skill set needed to be successful throughout the education process (Wisconsin Assistive Technology Initiative, 2009, p.1).

**Participants**
Participants in the educational team may include the student, family, related service providers, general educators, special educators, instructional assistants, case manager/service coordinator, administrators, instructional facilitators, and any other person who can help select AT devices and services, instructional technology, and other strategies and resources necessary to receive a free appropriate public education (FAPE) in the least restrictive manner. In the context of an IEP meeting, the local educational agency shall ensure that the IEP Team consists of members outlined in §8VAC20-81-110 C (Virginia Department of Education, 2010).

**Positioning, Seating, Mobility**
Optimal positioning in a "seating system can provide support to the body to improve skeletal alignment, normalize tone, prevent deformities, and enhance movement" (Cook, et al, 2020, p. 212). "The primary purpose of seating devices is to maximize a person's ability to function in activities across all performance areas" (Cook, et al, 2020, p. 193). Mobility "allows movement that enables function in a seated or standing position" (Cook, et al, 2020, p. 444).

**Reading**
Reading instruction includes elements that teach five critical areas of literacy: (a) phonemic awareness, (b) phonics, (c) fluency, (d) vocabulary, and (e) text comprehension (Virginia Department of Education, 2017, p. 19). These skills align with the State's English Standards of Learning for Virginia Public Schools.

**Recreation/Leisure**
Recreation refers to all those activities that people choose to do to refresh their bodies and minds and make their leisure time more interesting and enjoyable (National Center for Biotechnology Information, 2010, paras. 10-11). Examples of recreational activities are walking, swimming, meditation, reading, playing games, and dancing. Leisure refers to the free time that people can spend away from their everyday responsibilities (e.g., work, domestic tasks) to rest, relax, and enjoy life. It is during leisure time that people participate in recreation and sporting activities. The types of recreation, leisure, and sports activities people participate in vary greatly depending on the local context, and tend to reflect the social systems and cultural values.

**Self-Regulation**
Self-regulation is the ability to adapt emotional expression, behavioral activity level, and attention/arousal level effectively in response to the contextual demands of the environment (Schell & Gillen, 2009, p 1167).

**Sensory Processing**
Sensory processing may include reception, modulation, integration, and organization of sensory stimuli occurring in the central nervous system. It may also include the behavioral responses to sensory input (Schell & Gillen, 2009, p. 1167).

**Sensory: Vision and/or Hearing**
Sensory disabilities can involve any of the five senses, but for educational purposes, it generally refers to a disability-related to hearing, vision, or both hearing and vision (Virginia Department of Education, 2021b, paras. 1-2). Sensory disabilities affect access—access to visual and/or auditory information. Most content information is presented visually and/or auditorily in the classroom. Children experiencing vision and/or hearing loss must be appropriately identified to ensure access to education.

**SETT Framework**
The acronym SETT is for Student, Environments, Tasks, and Tools. The SETT Framework is a four-part model intended to promote collaborative decision-making in all phases of assistive technology service and design and delivery from consideration through implementation and evaluation of effectiveness (Zabala, 2021). Although the acronym SETT forms a memorable word, it is not intended to imply an order, other than that the student, environment, and tasks should be fully explored before tools are considered or selected.

**Spelling**
Spelling requires knowledge of sound sequences, letter patterns, and morphemes (base words and affixes (e.g., un-comfort-able)) (Virginia Department of Education, 2017, p. 26).

**Strategy**
Practices that are used to teach students how to learn and perform (Budin et al., 2022). Strategy instruction builds independence by facilitating students' abilities to be more self-directive in identifying and achieving social, academic, physical, and behavioral goals. This includes the use and training of assistive technology.

**Task Completion**
The sustained effort, including staying focused and organized, to plan and complete all steps and tasks involved in an assignment or activity.

**Team Meeting**
During a team meeting, participants may review existing data, discuss a teacher or related service provider's observations or ongoing classroom observations, or review data from the administration of a test or evaluation that is administered to all children or for which parental consent had already been secured. No new data is gathered for these meetings.

Teams may identify AT, tools, and strategies to implement or share information to assist the student, staff, or families.

**Technology Access**
This means individuals with disabilities who cannot control technology with standard tools (e.g., keyboard, standard mouse) engage with and operate devices (e.g., laptops, smartphones, calculators, tablets, audio/visual equipment) with the use of peripheral assistive technology devices (e.g., switches, adapted mice, large keyboards), accessibility features built into the device, or universally designed equipment.

**Tools and Strategies**
Tools and strategies may include educational and/or instructional materials or evidence-based practices that will support the student in meeting their IEP goals.

**Trials**
An opportunity is provided for a child to try out assistive technology, instructional technology, or strategies to determine effective solutions. This provides information to the IEP or planning team about the advantages and changes needed to materials or strategies as well as the student's preferences and performance to facilitate further discussions and decisions.

**Vocational**
Vocational skills address knowledge and skills essential for performing the tasks involved in an occupation including general work skills as well as specific skills related to trade, craft, profession, or role (Skills Portal Skills for Success, 2020). These may include work readiness, interview and job search skills, social and communication skills, career choice, and safety.

**Written Composition**
Written expression or composing requires the translation of ideas into sentences (Virginia Department of Education, 2017, p. 27). Writing is a complex task that requires several cognitive processes (e.g., planning, working memory) and skills. It requires the ability to read, spell, know the meaning of words, and understand the syntax of the language to compose a written product.

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