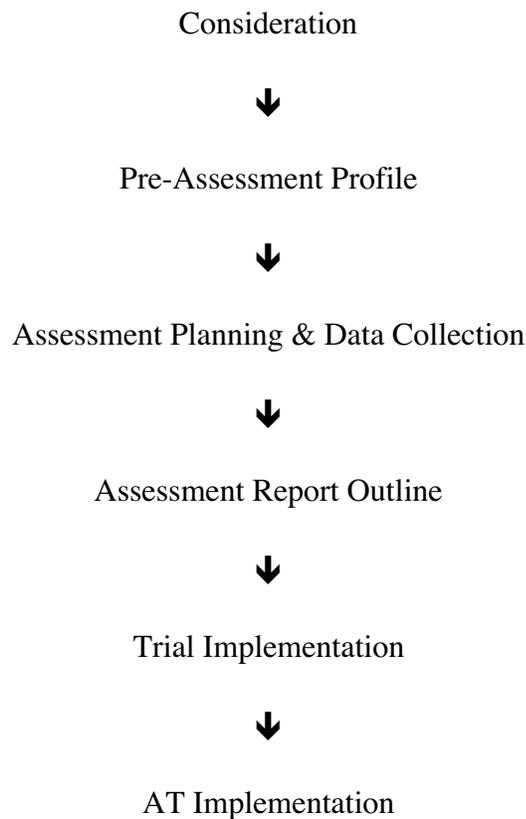


University of Kentucky Assistive Technology (UKAT) Toolkit

The University of Kentucky Assistive Technology (UKAT) Toolkit, is a series of tools (indicated below), which guide the assistive technology (AT) professional and AT team through the assistive technology process. The process begins with the consideration of AT and continues through implementation and the ongoing monitoring of devices and services implemented.



The UKAT Toolkit also contains one additional tool, *Knowledge & Skills Survey*. The *Knowledge & Skills Survey* is used to determine individual professional development needs of school personnel, students using AT, and parents.

The following page provides a brief overview of the UKAT Toolkit implementation process. Eight steps are identified that guide you through the six tools listed above. A brief description of the actions for each step is included in the center column.

Steps in AT Service Delivery

Step	Description	Tool
IEP team formation	<ul style="list-style-type: none"> Determine interdisciplinary (IEP) team members to meet student's unique needs and ensure thorough service delivery 	Consideration (p. 1)
Consider assistive technology	<ul style="list-style-type: none"> Determine whether or not the child will benefit from AT Identify demands placed on student Identify next steps in the AT process 	Consideration
Determine student personal resources and external supports	<ul style="list-style-type: none"> Determine present levels of performance Identify additional demands Identify areas needing further assessment Determine goals/outcomes desired Identify student responses to and perceptions of each demand Summarize instructional strategies, previously or currently used adaptations, and AT Determine external supports: funding, technology support, family, related services, training 	Pre-Assessment Profile
Prepare for and conduct assessment	<ul style="list-style-type: none"> Prioritize objectives for assessment areas Plan assessment activities and responsibilities Determine personal resources of student to options explored Identify responses and personal perceptions of student to options explored 	Assessment Planning & Data Collection
Prepare assessment report	<ul style="list-style-type: none"> Summarize outcomes and implications Summarize strengths and weaknesses Determine viable technology options for trial Identify device and service features 	Assessment Report Outline
Conduct trial(s) and make final recommendations	<ul style="list-style-type: none"> Design trial implementation plan Evaluate trial data Make final recommendations 	Trial Implementation
Reconvene IEP meeting to include AT	<ul style="list-style-type: none"> Determine appropriate AT Determine AT goals and objectives Design implementation plan Set short and long term goals determining: strategies, context, responsibilities, duration, length of intervention training List AT on IEP 	IEP AT Implementation
Execute training and implementation plan	<ul style="list-style-type: none"> Identify training needs of user, parents, and support personnel Conduct or obtain training Implement AT Collect implementation data 	AT Implementation
Follow-up	<ul style="list-style-type: none"> Continue to monitor success of recommendations and make adjustments as needed Periodically monitor AT service delivery processes and procedures 	AT Implementation

Introduction

The following eight steps describe the process of using the UKAT Toolkit for the successful implementation of assistive technology. The UKAT Toolkit has been developed for use with a broad and diverse range of students. Therefore, not all tool content will apply to each student; each student is a unique individual. Notations including N/A for not applicable or slash marks, can be used to indicate such areas. However, we encourage you to consider all areas of each tool prior to establishing it as not applicable.

Using the tools as described is highly encouraged, although individualization and customization is understandable. When used together and as intended, the tools in the Toolkit help ensure that the whole student is incorporated when considering, selecting, and implementing assistive technology. Teamwork also is encouraged and will lead to quality services, which positively impact the Individualized Education Program (IEP)/AT team, student, and family, as well as, others involved in the AT service delivery process.

Note: Most members of the IEP team also will be considered to be a part of the AT team.

Step One: IEP Team Formation

The assistive technology service delivery process begins with the formation of the Individualized Education Program (IEP) team. The IEP team will consist of a number of individuals from differing disciplines configured to meet the unique needs of the student. For more information on team members see the *Using Interdisciplinary Teams for Planning and Delivering AT Services* document in this *Toolkit*. It is the IEP team that makes the first determination of a need for AT at the IEP meeting. This determination is referred to as consideration.

Step Two: Consider Assistive Technology

The Individuals with Disabilities Education Act (IDEA, P. L. 105-17) requires that assistive technology be considered for every student who has an IEP. The IEP team should complete the *UKAT Toolkit Consideration* tool when addressing the federal mandate regarding the consideration of assistive technology during the IEP meeting. The *Consideration* tool helps the IEP team identify functional areas for which AT can be used to meet functional demands (all or part of a task the student is unable to successfully perform without assistance). It also serves as documentation, which should remain in the student's confidential file. The record of consideration is important information for future service providers. If no AT is needed at the present time, this tool is used to document the team's decision. The completed *Consideration* tool is included in the student's record as evidence that the federal mandate was carried out.

We recommend that you use the four pages of the *Consideration* tool to create a folder for housing all AT related documentation. This folder can then be kept in the student's main education folder ensuring confidentiality. Or the pages can be stapled and used similar to the other tools in the toolkit. As team members change and in subsequent years, additional forms can be stapled to the original form, keeping the chronology of AT consideration in one place; the most recent documentation should be placed in front of preceding pages.

The following steps should be followed for completion of the *Consideration* tool:

1. Check the box in the upper right hand corner of pages one and two to identify if the tool is being completed during the initial IEP (and consideration), or an annual or three-year review (or reconsideration).
2. Indicate the name of each IEP/AT team member on page one of the *Consideration* tool. For each team member document contact information, such as telephone numbers and best times to call. This page can be completed before, during, or after the IEP meeting.
3. Complete pages two and three during the IEP meeting per the instructions indicated on the tool. Complete a new page two each time AT is re-considered and place a check in the box to indicate the form as the annual or three-year *Consideration* tool. The new *Consideration* page should be stapled in front of the previous form for documentation purposes when the *Consideration* folder is being used.
4. Review the list of functional demands in the first column on pages two and three. Refer to the definitions of the functional areas on page four (or the back of the *Consideration* folder) if necessary for further clarification.
5. In the second column, list the demands (all or part of a task the student is unable to perform successfully without assistance at that point in time) with which the student continues to experience difficulties, such as “Tom is unable to maintain his grasp using a standard pencil, when writing in his journal.” List only priority demands. If no demands can be identified for a functional area check the box indicating no concerns.
6. For each demand identified, indicate the *Consideration Option/Action Step* (from the table at the top of page two) as determined by the IEP team. If no concerns exist and the box is checked indicate either a “1” or a “3” as the *Consideration Option/Action Step*.
 1. AT is not used; not needed – Continue IEP process
 2. AT is not used; may be needed – Collect *Pre-Assessment Profile* data
 3. AT is used; meeting current needs – Document AT in IEP
 4. AT is used; not meeting current needs – Collect/Review/Update *Pre-Assessment Profile* data
 5. AT is not used; may be needed – Review/Update *Pre-Assessment Profile* data
7. For each Action Step estimate a target completion date, as appropriate.
8. Have all IEP team members sign their names indicating affirmation of consideration at the bottom of page three.
9. Implement the *Action Steps* indicated for each *Consideration Option*.

Step Three: Determine Student Personal Resources and External Supports

The *Pre-Assessment Profile* has been designed to guide the user in gathering information related to the student’s skills and demands. The *Profile* organizes personal resource and external support information concerning the following skills: *Behavior, Communication, Education: Foundations, Education: Academic, Health/Medical, Physical, and Sensory*. It also guides the user through functional analysis of

priority demands in the *Pre-Assessment Summary*. When completing the *Pre-Assessment Profile*, describe the student's ability when using AT devices or modifications already in place.

1. During the IEP meeting and completion of the *Consideration* tool, the IEP team recommends completion of the *Pre-Assessment Profile* as an *Action Step* stemming from the *Consideration Option* determined.
2. Only one *Profile* should be completed. All sections - *Behavior, Communication, Education: Foundations, Education: Academic, Health/Medical, Physical, Sensory, & Pre-Assessment Summary* - are to be completed by IEP/AT team members as a team, including the parent(s), with input from individuals who may not be physically present for the meeting. The IEP/AT team may need to reconvene (formally or informally) to synthesize externally collected information.

Note: Specific individuals may take the lead in providing information within certain sections of the *Profile* (i.e. the physical therapist for physical). It is recommended that the lead person have extensive knowledge and expertise in that skill area. However, the input of all team members and parents is to be considered for each area of the *Profile*.

Note: Data suggests that when a team completes the process, together they generate more effective solutions than when it is completed independently. The process of working together and sharing ideas results in more appropriate educational programming and solutions. Further, the process helps determine when AT is needed AND when AT is NOT needed. When further assistance is needed, professionals new to the student are able to respond more quickly and appropriately when given a completed *Profile*.

3. The *Behavior, Communication, Education: Foundations, Education: Academic, Health/Medical, Physical, and Sensory* sections of the *Pre-Assessment Profile* will be completed primarily using checkmarks or open-ended responses/commentaries to indicate performance levels, comments, and descriptions, as indicated on the tool for each specific item.
4. Using the performance data on all previous pages of the *Profile*, as well as the IEP, complete the *Pre-Assessment Summary* (pages 10__ and 11__). Identify the priority functional demands (tasks or part of a task that the student is unable to perform independently e.g., brushing teeth, writing a paper). **Both *Pre-Assessment Summary* pages should be completed for every priority demand.** These pages are numbered page 10__ and page 11__. In order to systematically include analyses for multiple demands, include a letter on the line provided at the bottom of the page next to the page number on each *Pre-Assessment Summary* page to represent the order, e.g., 10a and 11a for the 1st demand, 10b and 11b for the 2nd demand, etc.

Each *Pre-Assessment Summary* section of the *Pre-Assessment Profile* serves to provide current and historical data regarding the instructional strategies, instructional adaptations, and assistive technologies previously and currently implemented for the identified demand. Student responses and perceptions also are included.

- a. Indicate a number for the demand, then describe one priority functional demand. Place a check in the correct box to indicate the appropriate functional area of that demand. Then,

describe the environment and context in which the demand occurs (all appropriate to the student's education), as well as, previous/current environmental adaptations.

Critical to the functional analysis is the inclusion of student perceptions and responses to interventions. Student perceptions and responses (outcomes) should be addressed (a) whenever there is a functional demand with which the student experiences difficulty; or (b) there is a change in instructional delivery, be it through strategies, adaptations to instructional materials, or the use of assistive technology. Student perceptions include:

1. how the student sees their needs and problems,
2. the student's thoughts and views regarding alternatives (strategies, adaptations, or technologies),
3. how the student views the costs associated with the interventions,
4. what the student sees as benefits of the strategies, adaptations, or technologies; and,
5. the consequences the student feels will result from the strategies, adaptations, or technologies.

Additional factors to consider are how the student feels about the specific strategy, adaptation, or technology and the use of the strategy, adaptation, or technology in completing the identified tasks. It is critical to focus on the student while trying to meet individualized student needs and avoid the potential abandonment of equipment.

- b. Summarize the student's strengths and weaknesses identified in the *Profile* that affect the identified demand and identify student responses and perceptions, indicating how the perceptions were determined.
- c. Identify an instructional strategy that has been applied in the past or is currently being used. Instructional strategies will include changes in procedure, delivery of instruction, etc. Typically no technology or physical adaptations will be involved in instructional strategies. For example, if a student has a hearing loss in the right ear, seating a student to the right of the teacher during group activity will enable the student to use optimal hearing for that activity.
- d. Describe the outcome of the instructional strategy (how the student responded to the strategy, adaptation, or technology). Outcomes typically described as observable behavioral responses related to use, are either general or specific, and may occur over a short or long period of time. Illustrate the student's perception of the previous and current strategies. List any additional instructional strategies used of prior or current use.
- e. Identify an instructional adaptation used previously or currently to aid the student in meeting the demand. Instructional adaptations typically include modifications to teaching materials or the use of simple teaching tools to aid in access and participation, such as the use of a black marker and white board rather than white chalk on a green chalkboard to enhance the visibility for students with visual difficulties.
- f. Repeat step "d" above for instructional adaptations.
- g. Indicate an assistive technology used previously or currently in use. Again, repeat step "d" for AT.

Refer to the *Sample Alternative Strategies* and *WATI Continuum of AT Considerations* if additional information is desired for instructional strategies, instructional adaptations, and assistive technologies.

5. The last page of the Profile includes the names and signatures of all individuals involved in completing the *Pre-Assessment Profile*. The next steps identified by the IEP/AT team are indicated.

Note: A copy of the student's *Pre-Assessment Profile* and *Consideration* form, as well as, the *Assessment Report Outline* should be provided to the school/district and assessment consultants outside the district.

Step Four: Prepare For and Conduct Assessment

The *Assessment Planning & Data Collection* tool has been designed to guide the team through the development of an AT assessment plan and provide a tool for recording results of planned activities. Since commercially available AT assessment protocols are limited, and may not be appropriate for a specific student, this tool guides the team through the process of determining what student activities will elicit the data needed to make good decisions about AT for that student.

1. If an assessment is needed and will be completed within the school or district, the assessment team (e.g., special educator, general educator, AT specialist, speech language pathologist, occupational therapist, physical therapist, technology specialist) should complete the assessment using the *Assessment Planning & Data Collection* tool.
2. One form should be completed for each demand identified in the *Pre-Assessment Profile*.
3. Transfer four pieces of information for that demand from the *Functional Analysis* section of the *Pre-Assessment Profile* to the top of this form: the demand, area of function, environment and context (all appropriate to the student's educational use of the AT), environmental adaptations, student perceptions of the demand, and student responses to the demand.
4. In the left column of the Assessment Procedures table, summarize the goals of the assessment. Address the question "What do we need to know or learn from this assessment?" List out all of the questions that need to be answered for each goal and demand.
5. In the middle column, "Planned Activities/What We Did," describe the activities that will be conducted during the assessment. Plan activities that will obtain the information needed to address the goals of the assessment (What Do We Need to Know). Be as specific as possible. Include all of the materials needed. Identify a team member with primary responsibility for preparing and conducting this activity. At this point, assessment planning is complete.
6. Conduct the assessment and record the findings in the third column "What We Found." Record the student's perceptions of the task or the technologies used, any medical information uncovered, and optimal positioning during the assessment activities.
7. It is often the case that the activities conducted are not implemented exactly the same as those planned. At this point, edit the middle column to reflect the actual activities conducted. Include the date, time, strategies, and the materials used.

8. The second page of this tool is a continuation of the table described in steps 4 – 7. Add additional sheets if needed.
9. Once the assessment is complete, move to the next step: create an AT assessment report using the *Assessment Report Outline* provided with the Toolkit as a framework for the report.
 - a. Review the *Assessment Report Outline* and complete the assessment report, making sure the recommendations are clear and resources for obtaining the recommended AT are provided. Sources for locating information on available AT may include online databases (e.g., ABLEDATA at www.abledata.com and Closing the Gap at www.closingthegap.com) and local AT resource centers, as well as, vendor and reseller catalogs. Those individuals who actively participate in the assessment should collaborate in writing this report.
 - b. A copy of the final written assessment report is mailed to the IEP/AT Team Leader. The Team Leader is responsible for providing copies of the report to parents and school personnel prior to the next IEP meeting and scheduling an IEP meeting to discuss the results.
 - c. The IEP team reconvenes to discuss assessment results and make recommendations for trial implementation.
 - d. The IEP team determines trial devices and/or services and documents them in the IEP. Responsibilities for implementing trial recommendations for AT are assigned and a follow-up date to discuss progress is established.

Step Five: Trial and Make Recommendations

Some view trial use of assistive technology as burdensome. However, trial implementation is critical and may be required by funding sources to avoid technology abandonment. Trial implementation provides the user with an opportunity to establish preferences and provide feedback on specific devices, as well as, determine feasibility of a device.

1. Before final recommendations are made, several different adaptations or technology brands may be considered appropriate. To determine the one that is most appropriate and is preferred by the student, these items should be used for a defined period of time. The *Trial Implementation* tool guides this process.
2. The length of a trial period will differ for each student. The first thing to consider for these trial periods is the student's level of expertise on the device being tried. If the student has had no experience with it or similar devices, the student must be trained. Also consider the expertise of other individuals who will be supporting the student during the trial. Parents, teachers, and therapists are individuals who may need training on the device as well. On the tool, indicate who needs training and who has the responsibility for delivering or obtaining the training. The amount of training needed will impact the total trial period.
3. Determine who is responsible for obtaining and setting up the equipment needed for the trial and maintaining it while it's in use.

4. Before beginning, the team decides what the desired outcome of the trial will be. Criteria for success allow you to know when the AT is appropriate and will probably be successful. Criteria for nonsuccess allow you to know when to say “stop” and move on to the next device. Without criteria, the potential for carrying the trial out longer than necessary is high. In the table on the *Trial Implementation* tool, record the target ending date for each step (date data is to be reviewed if criterion has not been reached) based on the task and the student’s typical learning curve and who is responsible for that step. When the step is complete, either put a checkmark in the first column or the date of completion.
5. Complete the implementation log on the second page of the *Trial Implementation* by recording the date and time of the trial, the activity the student participated in using the AT, the environment/context in which the activity took place, the results of that day’s session (summary of data collected on a separate data collection form that is appropriate to the task), and any feedback from the student on the progress and perception of using the AT. These data are used to make informed decisions on the final selection of AT.
6. The final part of this form provides a place to record any revisions that should be made relative to the final recommendation. If the technology has changed from the original recommendation, include source information for the recommended product as you did in the assessment report.
7. The IEP team should meet either formally or informally to make decisions based on trial data and either recommend additional trial using same or other AT or devices and/or services for implementation. New target dates should be established. All additional trials should be documented using the *Trial Implementation* tool.

Note: The length of time required for trial implementation will vary greatly. The trial period can last from weeks to months depending on the needs of the individual and the complexity of the AT.
8. At this point the IEP team brainstorms sources of funding for the device. These are recorded on this tool.

Step Six: Finalize the IEP

The IEP/AT team reconvenes to determine which of the recommendations from the *AT Implementation* tool will be implemented by the team. Implementation plans are discussed as a team to determine how the devices and services will be obtained, who will be trained, and who will be responsible for implementation activities such as acquisition and training.

Step Seven: Training and Implementation

The *AT Implementation* tool guides implementation planning in addition to providing a means for recording the results of data gathered through other data collection tools. The *AT Implementation* tool can then be utilized by the entire IEP/AT team for the ongoing monitoring of final AT decisions. As in the trial implementation, expected outcomes are stated providing a scale by which to measure progress.

One critical aspect of implementation is training. Each individual responsible for either use or integration of the AT must be trained in its use. Understanding of the technology and its uses promotes confidence and use/integration. Training also aids in the prevention of abandonment (discussed under trial use).

1. Describe the way the AT will be integrated into the curriculum, student's day, and various environments within and outside the school (educationally relative).
2. Full integration does not happen the first day of AT use. A schedule is developed to gradually introduce the AT across the curriculum, day, and environments. Specific areas addressed by the schedule include: obtaining the device or service, training, equipment management, and implementation set up and maintenance. Target dates for completing the steps in implementation planning should be recorded. Persons responsible for each of the tasks under these areas should be noted. Record any comments during implementation in the right hand column.
3. Complete the implementation monitoring log on the third page of the *AT Implementation* by recording the date and time of use, the activity the student participated in using the AT, the environment/context in which the activity took place, the results of that day's session (summary of data collected on a separate data collection form that is appropriate to the task), and any feedback from the student on the progress and perception of using the AT. These data are used to make informed decisions regarding AT devices and services.
4. Continue to collect data on a periodic basis to monitor progress and identify the need for changes in devices and/or services.

Step Eight: Follow-Up

Ongoing monitoring serves as a means to aid in the determination of follow-up services, i.e. when equipment is no longer working effectively, when physical changes prevent the student from using the AT effectively, etc. The *AT Implementation* tool can serve as one means of recording data on an ongoing basis for determining when specific follow-up activities are needed. (Appropriate task specific data should be recorded in a format specific to the task and a summary of results transferred to the *AT Implementation* tool.) In addition, team members can be assigned specific follow-up duties such as analysis of data and equipment maintenance. The student's parent(s), teachers, therapists, and other service providers also can request follow-up when necessary.

Professional Development Needs Assessment

The *Knowledge and Skills Survey* is included in the UKAT Toolkit because successful implementation of assistive technology is significantly impacted by the knowledge base of all services providers, as well as, the student and parents. This survey is based on the knowledge and skill statements that were validated by the Council for Exceptional Children (CEC) for special education technology specialists (CEC, in press). It is intended to serve as a guide for individuals who want to advance their knowledge of assistive technology. It can be used to

determine a school or district level of knowledge as well, and to identify areas of professional development that would meet the needs of a larger group.

The top portion of the tool provides demographic information for an administrator that is useful in planning a professional development program. If the survey is being used for an individual, this part can be skipped.

The remainder of the tool presents 50 knowledge and skill statements that are to be self-rated on a scale of 1-5. One (1) indicates little or no expertise in that area and five (5) indicates “near expert” expertise. There is no scoring system of the survey, however you could plot the ratings to look at peaks and valleys of knowledge and skills. This would be especially useful when looking at ratings across a whole group of service providers.

The Toolkit

The Toolkit is designed to be used in its entirety (where appropriate). However, you may only need or desire to use individual components. Using individual components may require adaptation of the tools as they currently exist. In such cases please include the following:

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