



**Self-Evaluation Matrices for the**

**Quality Indicators in**

**Assistive Technology Services**

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## Introduction to the QIAT Self-Evaluation Matrices

The Quality Indicators in Assistive Technology (QIAT) Self-Evaluation Matrices were developed in response to formative evaluation data indicating a need for a model that could assist in the application of the Quality Indicators for Assistive Technology Services in Schools (Zabala, et. al, 2000). The QIAT Matrices are based on the idea that change does not happen immediately, but rather, moves toward the ideal in a series of steps that take place over time. The QIAT Matrices use the Innovation Configuration Matrix (ICM) developed by Hall and Hord (1985) as a structural model. The ICM provides descriptive steps ranging from the unacceptable to the ideal that can be used as benchmarks to determine the current status of practice related to a specific goal or objective and guide continuous improvement toward the ideal. It enables users to determine areas of strength that can be built upon as well as areas of challenge in need of improvement.

When the QIAT Matrices are used to guide a collaborative self-assessment conducted by a diverse group of stakeholders within an agency, the information gained can be used to plan for changes that lead to improvement throughout the organization in manageable and attainable steps. The QIAT Matrices can also be used to evaluate the level to which expected or planned-for changes have taken place by periodically analyzing changes in service delivery over time.

When completed by an individual or team, the results of the self-assessment can be used to measure areas of strength and plan for needed professional development, training, or support needed by the individual or team. When the QIAT Matrices are used by an individual or team, however, it is important to realize that the results can only reasonably reflect perceptions of the services in which that individual or team is involved and may not reflect the typical services within the organization. Since a primary goal of QIAT is to increase the quality and consistency of assistive technology (AT) services to all students throughout the organization, the perception that an individual or small group is working at the level of best practices may still indicate a need to increase the quality and consistency of services throughout the organization.

The descriptive steps included in the QIAT Matrices are meant to provide illustrative examples and may not be specifically appropriate, as written, for all environments. People using the QIAT Matrices may wish to revise the descriptive steps to align them more closely for specific environments. However, when doing this, care must be taken that the revised steps do not compromise the intent of the quality indicator to which they apply.

The QIAT Matrices document is a companion document to the list of Quality Indicators and Intent Statements. The original six indicator areas were validated by research in 2004 and revisions were made in 2005. For more information, please refer to the indicators and intent statements on the QIAT Web site at <http://www.qiat.org>. Before an item in the QIAT Matrices is discussed and rated, groups must read the entire item in the list of Quality Indicators and Intent Statements so that the intent of the item is clear.

## References

Hall, G. E. and Hord, S. M. (1987) *Change in Schools: Facilitating the Process*. Ithaca: State University of New York Press

QIAT Consortium. (2005). Quality indicators for assistive technology services. Retrieved August 5, 2009 from <http://www.qiat.org>.

Zabala, J. S., Bowser, G., Blunt, M., Carl, D. F., Davis, S., Deterding, C., Foss, T., Korsten, J., Hamman, T., Hartsell, K., Marfilus, S. W., McCloskey-Dale, S., Nettleton, S. D., & Reed, P. (2000). Quality indicators for assistive technology services. *Journal of Special Education Technology*, 15 (4), 25-36.

Zabala, J.S., & Carl, D.F. (2005). Quality indicators for assistive technology services in schools. In D.L. Edyburn, K. Higgins, & R. Boone (Eds.), *The handbook of special education technology research and practice* (pp. 179-207). Whitefish Bay, WI: Knowledge by Design, Inc.

## Quality Indicators for Consideration of Assistive Technology Needs

Quality Indicator	Variations				
	UNACCEPTABLE  PROMISING PRACTICES				
<b>1. Assistive technology (AT) devices and services are <u>considered for all students with disabilities</u> regardless of type or severity of disability.</b>	<b>1</b> AT is not considered for students with disabilities.	<b>2</b> AT is considered only for students with severe disabilities or students in specific disability categories.	<b>3</b> AT is considered for all students with disabilities but the consideration is inconsistently based on the unique educational needs of the student.	<b>4</b> AT is considered for all students with disabilities and the consideration is generally based on the unique educational needs of the student.	<b>5</b> AT is considered for all students with disabilities and the consideration is consistently based on the unique educational needs of the student.
<b>2. During the development of the individualized educational program (IEP), every IEP team consistently uses a <u>collaborative decision-making process</u> that supports systematic consideration of each student's possible need for AT devices and services.</b>	<b>1</b> No process is established for IEP teams to use to make AT decisions.	<b>2</b> A process is established for IEP teams to use to make AT decisions but it is not collaborative.	<b>3</b> A collaborative process is established but not generally used by IEP teams to make AT decisions.	<b>4</b> A collaborative process is established and generally used by IEP teams to make AT decisions.	<b>5</b> A collaborative process is established and consistently used by IEP teams to make AT decisions.
<b>3. IEP team members have the <u>collective knowledge and skills</u> needed to make informed AT decisions and seek assistance when needed.</b>	<b>1</b> The team does not have the knowledge or skills needed to make informed AT decisions. The team does not seek help when needed.	<b>2</b> Individual team members have some of the knowledge and skills needed to make informed AT decisions. The team does not seek help when needed.	<b>3</b> Team members sometimes combine knowledge and skills to make informed AT decisions. The team does not always seek help when needed.	<b>4</b> Team members generally combine their knowledge and skills to make informed AT decisions. The team seeks help when needed.	<b>5</b> The team consistently uses collective knowledge and skills to make informed AT decisions. The team seeks help when needed.

<p><b>4. Decisions regarding the need for AT devices and services <u>are based on the student's IEP goals and objectives, access to curricular and extracurricular activities, and progress in the general education curriculum.</u></b></p>	<p><b>1</b> Decisions about a student's need for AT are not connected to IEP goals or the general curriculum.</p>	<p><b>2</b> Decisions about a student's need for AT are based on either access to the curriculum/IEP goals or the general curriculum, not both.</p>	<p><b>3</b> Decisions about a student's need for AT sometimes are based on both the student's IEP goals and general education curricular tasks.</p>	<p><b>4</b> Decisions about a student's need for AT generally are based on both the student's IEP goals and general education curricular tasks.</p>	<p><b>5</b> Decisions about a student's need for AT consistently are based on both the student's IEP goals and general education curricular tasks.</p>
<p><b>5. The IEP team <u>gathers and analyzes data about the student, customary environments, educational goals, and tasks when considering a student's need for AT devices and services.</u></b></p>	<p><b>1</b> The IEP team does not gather and analyze data to consider a student's need for AT devices and services.</p>	<p><b>2</b> The IEP team gathers and analyzes data about the student, customary environments, educational goals or tasks, not all, when considering a student's need for AT devices and services.</p>	<p><b>3</b> The IEP team sometimes gathers and analyzes data about the student, customary environments, educational goals and tasks when considering a student's need for AT devices and services.</p>	<p><b>4</b> The IEP team generally gathers and analyzes data about the student, customary environments, educational goals and tasks when considering a student's need for AT devices and services.</p>	<p><b>5</b> The IEP team consistently gathers and analyzes data about the student, customary environments, educational goals and tasks when considering a student's need for AT devices and services.</p>
<p><b>6. When AT is needed, the IEP team <u>explores a range of AT devices, services, and other supports that address identified needs.</u></b></p>	<p><b>1</b> The IEP team does not explore a range of AT devices, services, and other supports to address identified needs.</p>	<p><b>2</b> The IEP team considers a limited set of AT devices, services, and other supports.</p>	<p><b>3</b> The IEP team sometimes explores a range of AT devices, services, and other supports.</p>	<p><b>4</b> The IEP team generally explores a range of AT devices, services, and other supports.</p>	<p><b>5</b> The IEP team always explores a range of AT devices, services, and other supports to address identified needs.</p>
<p><b>7. The AT consideration process and <u>results are documented in the IEP and include a rationale for the decision and supporting evidence.</u></b></p>	<p><b>1</b> The consideration process and results are not documented in the IEP.</p>	<p><b>2</b> The consideration process and results are documented in the IEP but do not include a rationale for the decision and supporting evidence.</p>	<p><b>3</b> The consideration process and results are documented in the IEP and sometimes include a rationale for the decision and supporting evidence.</p>	<p><b>4</b> The consideration process and results are documented in the IEP and generally include a rationale for the decision and supporting evidence.</p>	<p><b>5</b> The consideration process and results are documented in the IEP and consistently include a rationale for the decision and supporting evidence.</p>

## Quality Indicators for Assessment of Assistive Technology Needs

Quality Indicator	Variations				
	UNACCEPTABLE				PROMISING PRACTICES
<b>1. <u>Procedures</u> for all aspects of AT assessment are clearly defined and consistently applied.</b>	<b>1</b> No procedures are defined.	<b>2</b> Some assessment procedures are defined, but not generally used.	<b>3</b> Procedures are defined and used only by specialized personnel.	<b>4</b> Procedures are clearly defined and generally used in both special and general education.	<b>5</b> Clearly defined procedures are used by everyone involved in the assessment process.
<b>2. AT assessments are conducted by a <u>team with the collective knowledge and skills needed to determine possible AT solutions that address the needs and abilities of the student, demands of the student, demands of the customary environments, educational goals, and related activities.</u></b>	<b>1</b> A designated individual with no prior knowledge of the student's needs or technology conducts assessments.	<b>2</b> A designated person or group of individuals who have knowledge of technology, but not of the student's needs, environments, or tasks conducts assessments.	<b>3</b> A designated team with knowledge of AT conducts assessments with limited input from individuals who have knowledge of the student's needs, environments, and tasks.	<b>4</b> A team whose members have direct knowledge of the student's needs, environments, tasks, and knowledge of AT generally conducts assessments.	<b>5</b> Flexible teams formed on the basis of knowledge of of the individual student's needs, environments, tasks, and expertise in AT consistently conduct assessments.
<b>3. All AT assessments include a functional assessment in the student's <u>customary environments, such as the classroom, lunchroom, playground, home, community setting, or work place.</u></b>	<b>1</b> No component of the AT assessment is conducted in any of the student's customary environments.	<b>2</b> No component of the AT assessment is conducted in any of the customary environments, however, data about the customary environments are sought.	<b>3</b> Functional components of AT assessments are sometimes conducted in the student's customary environments.	<b>4</b> Functional components of AT assessments are generally conducted in the student's customary environments.	<b>5</b> Functional components of AT assessments are consistently conducted in the student's customary environments.

<p><b>4. AT assessments, including needed trials, are completed within <u>reasonable timelines</u>.</b></p>	<p><b>1</b> AT assessments are not completed within agency timelines.</p>	<p><b>2</b> AT assessments are frequently out of compliance with timelines.</p>	<p><b>3</b> AT assessments are completed within a reasonable timeline and may or may not include initial trials.</p>	<p><b>4</b> AT assessments are completed within a reasonable timeline and include at least initial trials.</p>	<p><b>5</b> AT assessments are conducted in a timely manner and include a plan for ongoing assessment and trials in customary environments.</p>
<p><b>5. Recommendations from AT assessments are <u>based on data</u> about the student, environments and tasks.</b></p>	<p><b>1</b> Recommendations are not data based.</p>	<p><b>2</b> Recommendations are based on incomplete data from limited sources.</p>	<p><b>3</b> Recommendations are sometimes based on data about student performance on typical tasks in customary environments.</p>	<p><b>4</b> Recommendations are generally based on data about student performance on typical tasks in customary environments.</p>	<p><b>5</b> Recommendations are consistently based on data about student performance on typical tasks in customary environments.</p>
<p><b>6. The assessment provides the IEP team with clearly <u>documented recommendations</u> that guide decisions about the selection, acquisition, and use of AT devices and services.</b></p>	<p><b>1</b> Recommendations are not documented.</p>	<p><b>2</b> Documented recommendations include only devices. Recommendations about services are not documented.</p>	<p><b>3</b> Documented recommendations may or may not include sufficient information about devices and services to guide decision-making and program development.</p>	<p><b>4</b> Documented recommendations generally include sufficient information about devices and services to guide decision-making and program development.</p>	<p><b>5</b> Documented recommendations consistently include sufficient information about devices and services to guide decision-making and program development.</p>
<p><b>7. AT needs are <u>reassessed</u> any time changes in the student, the environments and/or the tasks result in the student's needs not being met with current devices and/or services.</b></p>	<p><b>1</b> AT needs are not reassessed.</p>	<p><b>2</b> AT needs are only reassessed when requested. Reassessment is done formally and no ongoing AT assessment takes place.</p>	<p><b>3</b> AT needs are reassessed on an annual basis or upon request. Reassessment may include some ongoing and formal assessment strategies.</p>	<p><b>4</b> AT use is frequently monitored. AT needs are generally reassessed if current tools and strategies are ineffective. Reassessment generally includes ongoing assessment strategies and includes formal assessment, if indicated.</p>	<p><b>5</b> AT use is frequently monitored. AT needs are generally reassessed if current tools and strategies are ineffective. Reassessment generally includes ongoing assessment strategies and includes formal assessment, if indicated.</p>



## Quality Indicators for Including Assistive Technology in the IEP

Quality Indicator	Variations				
	UNACCEPTABLE				PROMISING PRACTICES
<b>1. The education agency has <u>guidelines for documenting AT needs in the IEP</u> and requires their consistent application.</b>	<b>1</b> The agency does not have guidelines for documenting AT in the IEP.	<b>2</b> The agency has guidelines for documenting AT in the IEP but team members are not aware of them.	<b>3</b> The agency has guidelines for documenting AT in the IEP and members of some teams are aware of them.	<b>4</b> The agency has guidelines for documenting AT in the IEP and members of most teams are aware of them.	<b>5</b> The agency has guidelines for documenting AT in the IEP and members of all teams are aware of them.
<b>2. All <u>services</u> that the IEP team determines are needed to support the selection, acquisition, and use of AT devices are designated in the IEP.</b>	<b>1</b> AT devices and services are not documented in the IEP.	<b>2</b> Some AT devices and services are minimally documented. Documentation does not include sufficient information to support effective implementation.	<b>3</b> Required AT devices and services are documented. Documentation sometimes includes sufficient information to support effective implementation.	<b>4</b> Required AT devices and services are documented. Documentation generally includes sufficient information to support effective implementation.	<b>5</b> Required AT devices and services are documented. Documentation consistently includes sufficient information to support effective implementation.
<b>3. The IEP illustrates that AT is a <u>tool to support achievement of goals and progress in the general curriculum</u> by establishing a clear relationship between student needs, AT devices and services, and the student's goals and objectives.</b>	<b>1</b> AT use is not linked to IEP goals and objectives or participation and progress in the general curriculum.	<b>2</b> AT use is sometimes linked to IEP goals and objectives but not linked to the general curriculum.	<b>3</b> AT use is linked to IEP goals and objectives and sometimes linked to the general curriculum.	<b>4</b> AT is linked to IEP goals and objectives and is generally linked to the general curriculum.	<b>5</b> AT is linked to the IEP goals and objectives and is consistently linked to the general curriculum.

<p><b>4. IEP content regarding AT use is written in language that describes how AT contributes to achievement of <u>measurable and observable outcomes</u>.</b></p>	<p style="text-align: center;"><b>1</b></p> <p>The IEP does not describe outcomes to be achieved through AT use.</p>	<p style="text-align: center;"><b>2</b></p> <p>The IEP describes outcomes to be achieved through AT use, but they are not measurable.</p>	<p style="text-align: center;"><b>3</b></p> <p>The IEP describes outcomes to be achieved through AT use, but only some are measurable.</p>	<p style="text-align: center;"><b>4</b></p> <p>The IEP generally describes observable, measurable outcomes to be achieved through AT use.</p>	<p style="text-align: center;"><b>5</b></p> <p>The IEP consistently describes observable, measurable outcomes to be achieved through AT use.</p>
<p><b>5. AT is included in the IEP in a manner that provides a <u>clear and complete</u> description of the devices and services to be provided and used to address student needs and achieve expected results.</b></p>	<p style="text-align: center;"><b>1</b></p> <p>Devices and services needed to support AT use are not documented.</p>	<p style="text-align: center;"><b>2</b></p> <p>Some devices and services are documented but they do not adequately support AT use.</p>	<p style="text-align: center;"><b>3</b></p> <p>Devices and services are documented and are sometime adequate to support AT use.</p>	<p style="text-align: center;"><b>4</b></p> <p>Devices and services are documented and are generally adequate to support AT use.</p>	<p style="text-align: center;"><b>5</b></p> <p>Devices and services are documented and are consistently adequate to support AT use.</p>

## Quality Indicators for Assistive Technology Implementation

Quality Indicator	Variations				
	UNACCEPTABLE  PROMISING PRACTICES				
<b>1. AT implementation proceeds according to a <u>collaboratively developed plan</u>.</b>	<b>1</b> There is no implementation plan.	<b>2</b> Individual team members may develop AT implementation plans independently.	<b>3</b> Some team members collaborate in the development of an AT implementation plan.	<b>4</b> Most team members collaborate in the development of AT implementation plan.	<b>5</b> All team members collaborate in the development of a comprehensive AT implementation plan.
<b>2. AT is <u>integrated</u> into the curriculum and daily activities of the student across environments.</b>	<b>1</b> AT included in the IEP is rarely used.	<b>2</b> AT is used in isolation with no links to the student's curriculum and/or daily activities.	<b>3</b> AT is sometimes integrated into the student's curriculum and daily activities.	<b>4</b> AT is generally integrated into the student's curriculum and daily activities.	<b>5</b> AT is fully integrated into the student's curriculum and daily activities.
<b>3. Persons supporting the student across all environments in which the AT is expected to be used <u>share responsibility</u> for implementation of the plan.</b>	<b>1</b> Responsibility for implementation is not accepted by any team member.	<b>2</b> Responsibility for implementation is assigned to one team member.	<b>3</b> Responsibility for implementation is shared by some team members in some environments.	<b>4</b> Responsibility for implementation is generally shared by most team members in most environments.	<b>5</b> Responsibility for implementation is consistently shared among team members across all environments.
<b>4. Persons supporting the student provide opportunities for the student to use <u>a variety of strategies—including AT</u>—and to learn which strategies are most effective for particular circumstances and tasks.</b>	<b>1</b> No strategies are provided to support the accomplishment of tasks.	<b>2</b> Only one strategy is provided to support the accomplishment of tasks.	<b>3</b> Multiple strategies are provided. Students are sometimes encouraged to select and use the most appropriate strategy for each task.	<b>4</b> Multiple strategies are provided. Students are generally encouraged to select and use the most appropriate strategy for each task.	<b>5</b> Multiple strategies are provided. Students are consistently encouraged to select and use the most appropriate strategy for each task.

<p><b>5. <u>Learning opportunities</u> for the student, family and staff is an integral part of implementation.</b></p>	<p><b>1</b> AT needs for learning opportunities have not been determined.</p>	<p><b>2</b> AT learning opportunities needs are initially identified for student, family, and staff, but no training has been provided.</p>	<p><b>3</b> Initial AT learning opportunities are sometimes provided to student, family, and staff.</p>	<p><b>4</b> Initial and follow-up AT learning opportunities are generally provided to student, family, and staff</p>	<p><b>5</b> Ongoing AT learning opportunities are provided to student, family, and staff as needed, based on changing needs.</p>
<p><b>6. AT implementation is initially based on <u>assessment data</u> and is adjusted based on performance data.</b></p>	<p><b>1</b> AT implementation is based on equipment availability and limited knowledge of team members, not on student data.</p>	<p><b>2</b> AT implementation is loosely based on initial assessment data and rarely adjusted.</p>	<p><b>3</b> AT implementation is based on initial assessment data and is sometimes adjusted as needed based on student progress.</p>	<p><b>4</b> AT implementation is based on initial assessment data and is generally adjusted as needed based on student progress.</p>	<p><b>5</b> AT implementation is based on initial assessment data and is consistently adjusted as needed based on student progress.</p>
<p><b>7. AT implementation includes management and <u>maintenance of equipment</u> and materials.</b></p>	<p><b>1</b> Equipment and materials are not managed or maintained. Students rarely have access to the equipment and materials they require.</p>	<p><b>2</b> Equipment and materials are managed and maintained on a crisis basis. Students frequently do not have access to the equipment and materials they require.</p>	<p><b>3</b> Equipment and materials are managed and maintained so that students sometimes have access to the equipment and materials they require.</p>	<p><b>4</b> Equipment and materials are managed and maintained so that students generally have access to the equipment and materials they require.</p>	<p><b>5</b> Equipment and materials are effectively managed and maintained so that students consistently have access to the equipment and materials they require.</p>

## Quality Indicators for Evaluation of the Effectiveness of Assistive Technology

Quality Indicator	Variations				
	UNACCEPTABLE				PROMISING PRACTICES
<b>1. Team members share <u>clearly defined responsibilities</u> to ensure that data are collected, evaluated, and interpreted by capable and credible team members.</b>	<b>1</b> Responsibilities for data collection, evaluation, or interpretation are not defined.	<b>2</b> Responsibilities for data collection, evaluation, or interpretation of data are assigned to one team member.	<b>3</b> Responsibilities for collection, evaluation and interpretation of data are shared by some team members.	<b>4</b> Responsibilities for collection, evaluation and interpretation of data are shared by most team members.	<b>5</b> Responsibilities for collection, evaluation and interpretation of data are consistently shared by team members.
<b>2. Data are collected on specific student achievement that has been identified by the team and is <u>related to one or more goals</u>.</b>	<b>1</b> Team neither identifies specific changes in student behaviors expected from AT use nor collects data.	<b>2</b> Team identifies student behaviors and collects data, but the behaviors are either not specific or not related to IEP goal(s).	<b>3</b> Team identifies specific student behaviors related to IEP goals, but inconsistently collects data.	<b>4</b> Team identifies specific student behaviors related to IEP goals, and generally collects data.	<b>5</b> Team identifies specific student behaviors related to IEP goals, and consistently collects data on changes in those behaviors.
<b>3. Evaluation of effectiveness includes the <u>quantitative and qualitative</u> measurement of changes in the student's performance and achievement.</b>	<b>1</b> Effectiveness is not evaluated.	<b>2</b> Evaluation of effectiveness is based on something other than student performance, such as changes in staff behavior and/or environmental factors.	<b>3</b> Evaluation of effectiveness is based on subjective information about student performance.	<b>4</b> Evaluation of effectiveness is generally based on objective information about student performance from a few data sources.	<b>5</b> Evaluation of effectiveness is consistently based on objective information about student performance obtained from a variety of data sources.

<p><b>4. Effectiveness is evaluated <u>across environments</u> including during naturally occurring opportunities as well as structured activities.</b></p>	<p><b>1</b> Effectiveness is not evaluated in any environment.</p>	<p><b>2</b> Effectiveness is evaluated only during structured opportunities in controlled environments (e.g. massed trials data).</p>	<p><b>3</b> Effectiveness is evaluated during structured activities across environments and a few naturally occurring opportunities.</p>	<p><b>4</b> Effectiveness is generally evaluated during naturally occurring opportunities and structured activities in multiple environments.</p>	<p><b>5</b> Effectiveness is consistently evaluated during naturally occurring opportunities and structured activities in multiple environments.</p>
<p><b>5. Data are collected to provide teams with a means for <u>analyzing student achievement and identifying supports and barriers</u> that influence AT use to determine what changes, if any, are needed.</b></p>	<p><b>1</b> No data are collected or analyzed.</p>	<p><b>2</b> Data are collected but are not analyzed.</p>	<p><b>3</b> Data are superficially analyzed.</p>	<p><b>4</b> Data are sufficiently analyzed most of the time.</p>	<p><b>5</b> Data are sufficiently analyzed all of the time.</p>
<p><b>6. <u>Changes are made in the student's AT services and educational program</u> when evaluation data indicate that such changes are needed to improve student achievement.</b></p>	<p><b>1</b> Program changes are never made.</p>	<p><b>2</b> Program changes are made in the absence of data.</p>	<p><b>3</b> Program changes are loosely linked to student performance data.</p>	<p><b>4</b> Program changes are generally linked to student performance data.</p>	<p><b>5</b> Program changes are consistently linked to student performance data.</p>
<p><b>7. Evaluation of effectiveness is a <u>dynamic, responsive, ongoing process</u> that is reviewed periodically.</b></p>	<p><b>1</b> No process is used to evaluate effectiveness.</p>	<p><b>2</b> Evaluation of effectiveness only takes place annually, but the team does not make program changes based on data.</p>	<p><b>3</b> Evaluation of effectiveness only takes place annually and the team uses the data to make annual program changes.</p>	<p><b>4</b> Evaluation of effectiveness takes place on an on-going basis and team generally uses the data to make program changes.</p>	<p><b>5</b> Evaluation of effectiveness takes place on an on-going basis and the team consistently uses the data to make program changes.</p>

## Quality Indicators for Assistive Technology Transition

Quality Indicator	Variations				
	UNACCEPTABLE				PROMISING PRACTICES
<b>1. <u>Transition plans address the AT needs of the student, including roles and training needs of team members, subsequent steps in AT use, and follow-up after transition takes place.</u></b>	<b>1</b> Transition plans do not address AT needs.	<b>2</b> Transition plans rarely address AT needs, critical roles, steps or follow-up.	<b>3</b> Transition plans sometimes address AT needs but may not include critical roles, steps or follow-up.	<b>4</b> Transition plans always address AT needs and usually include critical roles, steps or follow-up.	<b>5</b> Transition plans consistently address AT needs and all team members are involved and knowledgeable about critical roles, steps and follow-up.
<b>2. <u>Transition planning empowers the student using AT to participate in the transition planning at a level appropriate to age and ability.</u></b>	<b>1</b> Student is not present.	<b>2</b> Student may be present but does not participate or input is ignored.	<b>3</b> Student sometimes participates and some student input is considered.	<b>4</b> Student participates and student input is generally reflected in the transition plan.	<b>5</b> Student is a full participant and student input is consistently reflected in the transition plan.
<b>3. <u>Advocacy related to AT use is recognized as critical and planned for by the teams involved in transition.</u></b>	<b>1</b> No one advocates for AT use or the development of student's self-determination skills.	<b>2</b> Advocacy rarely occurs for AT use or the development of student self-determination skills.	<b>3</b> Advocacy sometimes occurs for AT use and the development of student self-determination skills.	<b>4</b> Advocacy usually occurs for AT use and the development of student self-determination skills.	<b>5</b> Advocacy consistently occurs for AT use and the development of student self-determination skills.
<b>4. <u>AT requirements in the receiving environment are identified during the transition planning process.</u></b>	<b>1</b> AT requirements in the receiving environment are not identified.	<b>2</b> AT requirements in the receiving environment are rarely identified	<b>3</b> AT requirements in the receiving environment are identified, some participants are involved and some requirements are addressed.	<b>4</b> AT requirements in the receiving environment are identified, most participants are involved and most requirements are addressed.	<b>5</b> AT requirements in the receiving environment are consistently identified by all participants.

<b>5. Transition planning for students using AT proceeds according to an <u>individualized timeline</u>.</b>	<p style="text-align: center;"><b>1</b></p> Individualized timelines are not developed to support transition planning for students using AT.	<p style="text-align: center;"><b>2</b></p> Individualized timelines are developed, but do not support transition planning for students using AT.	<p style="text-align: center;"><b>3</b></p> Individualized timelines are sometimes developed and support transition planning for students using AT.	<p style="text-align: center;"><b>4</b></p> Individualized timelines are generally developed and support transition planning for students using AT.	<p style="text-align: center;"><b>5</b></p> Individualized timelines are consistently developed and support transition planning for students using AT.
<b>6. Transition plans address specific <u>equipment, training and funding</u> issues such as transfer or acquisition of AT, manuals and support documents.</b>	<p style="text-align: center;"><b>1</b></p> The plans do not address AT equipment, training and funding issues.	<p style="text-align: center;"><b>2</b></p> The plans rarely address AT equipment, training and/or funding issues.	<p style="text-align: center;"><b>3</b></p> The plans sometimes address AT equipment, training or funding issues.	<p style="text-align: center;"><b>4</b></p> The plans usually address AT equipment, training and funding issues.	<p style="text-align: center;"><b>5</b></p> The plans consistently address AT equipment, training and funding issues.



## Quality Indicators for Administrative Support of Assistive Technology

Quality Indicator	Variations				
	UNACCEPTABLE  PROMISING PRACTICES				
<b>1. The education agency has <u>written procedural guidelines</u> that ensure equitable access to AT devices and services for students with disabilities, if required for a free appropriate public education (FAPE).</b>	<b>1</b> No written procedural guidelines are in place.	<b>2</b> Written procedural guidelines for few components of AT service delivery are in place. (i.e. assessment or consideration)	<b>3</b> Written procedural guidelines that address several components of AT service delivery are in place.	<b>4</b> Written procedural guidelines that address most components of AT service delivery are in place.	<b>5</b> Comprehensive written procedural guidelines that address all components of AT service delivery are in place.
<b>2. The education agency <u>broadly disseminates</u> clearly defined procedures for accessing and providing AT services and supports the implementation of those guidelines.</b>	<b>1</b> No procedures disseminated and no plan to disseminate.	<b>2</b> A plan for dissemination exists, but has not been implemented.	<b>3</b> Procedures are disseminated to a few staff who work directly with AT.	<b>4</b> Procedures are disseminated to most agency personnel and generally used.	<b>5</b> Procedures are disseminated to all agency personnel and consistently used.
<b>3. The education agency includes appropriate AT responsibilities in <u>written descriptions of job requirements</u> for each position in which activities impact AT services.</b>	<b>1</b> No job requirements relating to AT are written.	<b>2</b> Job requirements related to AT are written only for a few specific personnel who provide AT services.	<b>3</b> Job requirements related to AT are written for most personnel who provide AT services but are not clearly aligned to job responsibilities.	<b>4</b> Job requirements related to AT are written for most personnel who provide AT services and are generally aligned to job responsibilities.	<b>5</b> Job requirements related to AT are written for all personnel who provide AT services and are clearly aligned to job responsibilities.

<p><b>4. The education agency employs <u>personnel with the competencies needed to support quality AT services within their primary areas of responsibility at all levels of the organization.</u></b></p>	<p><b>1</b> AT competencies are not considered in hiring, assigning or evaluating personnel.</p>	<p><b>2</b> AT competencies are recognized as an added value in an employee but are not sought.</p>	<p><b>3</b> AT competencies are recognized and sought for specific personnel.</p>	<p><b>4</b> AT competencies are generally valued and used in hiring, assigning and evaluating personnel.</p>	<p><b>5</b> AT competencies are consistently valued and used in hiring, assigning and evaluating personnel.</p>
<p><b>5. The education agency includes <u>AT in the technology planning and budgeting process.</u></b></p>	<p><b>1</b> There is no planning and budgeting process for AT.</p>	<p><b>2</b> AT planning and budgeting is a special education function that is not included in the agency-wide technology planning and budgeting process.</p>	<p><b>3</b> AT is sometimes included in the agency-wide technology planning and budgeting process, but is inadequate to meet AT needs throughout the agency.</p>	<p><b>4</b> AT is generally included in agency-wide technology planning and budgeting process in a way that meets most AT needs throughout the agency.</p>	<p><b>5</b> AT is included in the agency-wide technology planning and budgeting process in a way that meets AT needs throughout the agency.</p>
<p><b>6. The education agency provides access to <u>ongoing learning opportunities about AT for staff, family, and students.</u></b></p>	<p><b>1</b> No learning opportunities related to AT are provided.</p>	<p><b>2</b> Learning opportunities related to AT are provided on a crisis-basis only. Learning opportunities may not be available to all who need them.</p>	<p><b>3</b> Learning opportunities related to AT are provided to some individuals on a pre-defined schedule.</p>	<p><b>4</b> Learning opportunities related to AT are provided on a pre-defined schedule to most individuals with some follow-up opportunities.</p>	<p><b>5</b> Learning opportunities related to AT are provided on an ongoing basis to address the changing needs of students with disabilities, their families and the staff who serve them.</p>
<p><b>7. The education agency uses a <u>systematic process to evaluate all components of the agency-wide AT program.</u></b></p>	<p><b>1</b> The agency-wide AT program is not evaluated.</p>	<p><b>2</b> Varying procedures are used to evaluate some components of the agency-wide AT program.</p>	<p><b>3</b> A systematic procedure is inconsistently used to evaluate a few components of the agency-wide AT program.</p>	<p><b>4</b> A systematic procedure is generally used to evaluate most components of the agency-wide AT program.</p>	<p><b>5</b> A systematic procedure is consistently used throughout the agency to evaluate all components of the agency-wide AT program.</p>

## Quality Indicators for Professional Development and Training in Assistive Technology

Quality Indicator	Variations				
	UNACCEPTABLE				PROMISING PRACTICES
<b>1. Comprehensive AT professional development and training support the understanding that AT devices and services enable students to accomplish IEP goals and objectives and make progress in the general curriculum.</b>	<b>1</b> There is no professional development and training in the use of AT.	<b>2</b> Professional development and training only addresses technical aspects of AT tools and/or is not related to use for academic achievement.	<b>3</b> Some professional development and training includes strategies for use of AT devices and services to facilitate academic achievement.	<b>4</b> Most professional development and training includes strategies for use of AT devices and services to facilitate academic achievement.	<b>5</b> All professional development and training includes strategies for use of AT devices and services to facilitate academic achievement.
<b>2. The education agency has an AT professional development and training plan that identifies the audiences, the purposes, the activities, the expected results, evaluation measures and funding for AT professional development and training.</b>	<b>1</b> There is no plan for AT professional development and training.	<b>2</b> The plan includes unrelated activities done on a sporadic basis for a limited audience.	<b>3</b> The plan includes some elements (e.g. variety of activities, purpose, levels) for some audiences.	<b>4</b> The plan includes most elements of a comprehensive plan, for most audiences.	<b>5</b> The comprehensive AT professional development plan encompasses all elements, audiences, and levels.
<b>3. The comprehensive AT professional development and training content addresses all aspects of the selection, acquisition and use of AT.</b>	<b>1</b> There is no professional development and training on related to selection, acquisition, and use of AT.	<b>2</b> Professional development and training addresses few aspects of selection, acquisition, and use of AT.	<b>3</b> Professional development and training addresses some aspects of selection, acquisition, and use of AT.	<b>4</b> Professional development and training addresses most aspects of selection, acquisition, and use of AT.	<b>5</b> Professional development and training addresses all aspects of selection, acquisition, and use of AT.

<p><b>4. AT professional development and training address and are <u>aligned with other local, state and national professional development initiatives.</u></b></p>	<p><b>1</b> Professional development and training does not consider other initiatives.</p>	<p><b>2</b> Professional development and training rarely aligns with other initiatives.</p>	<p><b>3</b> Professional development and training sometimes aligns with other initiatives.</p>	<p><b>4</b> Professional development and training generally aligns with other initiatives.</p>	<p><b>5</b> Professional development and training consistently aligns with other initiatives as appropriate.</p>
<p><b>5. AT professional development and training include <u>ongoing learning opportunities that utilize local, regional, and/or national resources.</u></b></p>	<p><b>1</b> There are no professional development and training opportunities.</p>	<p><b>2</b> Professional development and training occurs infrequently.</p>	<p><b>3</b> Professional development and training is sometimes provided.</p>	<p><b>4</b> Professional development and training is generally provided.</p>	<p><b>5</b> Professional development and training opportunities are provided on a comprehensive, repetitive and continuous schedule utilizing appropriate local, regional and national resources.</p>
<p><b>6. Professional development and training in AT follow <u>research-based models for adult learning that include multiple formats and are delivered at multiple skill levels.</u></b></p>	<p><b>1</b> Professional development and training never considers adult learning.</p>	<p><b>2</b> Professional development and training rarely considers models for adult learning strategies.</p>	<p><b>3</b> Professional development and training sometimes considers research-based adult learning strategies.</p>	<p><b>4</b> Professional development and training generally considers research-based adult learning strategies.</p>	<p><b>5</b> Professional development and training consistently considers research-based adult learning strategies.</p>
<p><b>7. The effectiveness of AT professional development and training is <u>evaluated by measuring changes in practice that result in improved student performance.</u></b></p>	<p><b>1</b> Changes in practice are not measured.</p>	<p><b>2</b> Changes in practice are rarely measured.</p>	<p><b>3</b> Changes in practice are measured using a variety of measures but may not be related to student performance.</p>	<p><b>4</b> Changes in practice are usually measured using a variety of reliable measures linked to improved student performance.</p>	<p><b>5</b> Changes in practice are consistently measured using a variety of reliable measures linked to improved student performance.</p>

## **QUALITY INDICATORS FOR ASSISTIVE TECHNOLOGY SERVICES**

### **RESEARCH-BASED REVISIONS, 2005**

The consideration of assistive technology (AT) devices and services is required during the development of every Individualized Educational Program (IEP) and every Individual Family Service Plan (IFSP) for children from birth to school age. The Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004) requires that each team that plans for the education of a child with a disability document any AT devices and/or services the child may need. Despite this requirement, there has been no agreed upon description of high quality AT services by which schools can measure their compliance.

Since the summer of 1998, the Quality Indicators for Assistive Technology (QIAT) Consortium has focused its efforts on defining a set of descriptors that could serve as over-arching guidelines for quality AT services. The Consortium has attempted to develop descriptors that are applicable regardless of service delivery models. It is the belief of the Consortium that these descriptors can be used to guide:

1. School districts in the development and provision of quality AT services which are aligned to federal, state and local mandates;
2. AT service providers in the evaluation and improvement of their services;
3. Consumers of AT services in the selection of adequate AT services;
4. University faculty and professional development providers in the delivery of programs that develop knowledge and skills needed to offer quality AT services;
5. Leaders in the development of regulations and policies related to the use of AT in education.

When reviewing or using the Quality Indicators for Assistive Technology, it is important to be aware of some basic assumptions that pertain to all areas of QIAT. First, it is essential that ALL AT services developed and delivered by states or districts are legally correct according to the mandates and expectations of federal and state laws and are aligned to district policies. Second, AT efforts, at all stages, involve on-going collaborative work by teams which include families and caregivers, school personnel, and other needed individuals and service agencies. Third, multidisciplinary team members involved in AT processes are responsible for following the code of ethics for their specific profession.

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### **Quality Indicators for Consideration of Assistive Technology Needs**

Consideration of the need for AT devices and services is an integral part of the educational process contained in IDEA 2004 for referral, evaluation, and IEP development. Although AT is considered at all stages of the process, the Consideration Quality Indicators are specific to the consideration of AT in the development of the IEP as mandated by IDEA 2004. In most instances, the Quality Indicators are also appropriate for the consideration of AT for students who qualify for services under other legislation (e.g. 504, ADA).

1. **Assistive technology devices and services are considered for all students with disabilities regardless of type or severity of disability.**

Intent: Consideration of assistive technology need is required by IDEA 2004 and is based on the unique educational needs of the student. Students are not excluded from consideration of AT for any reason. (e.g. type of disability, age, administrative concerns, etc.)

- \*2. **During the development of the individualized educational program, the IEP team consistently uses a collaborative decision-making process that supports systematic consideration of each student's possible need for assistive technology devices and services.**

Intent: A collaborative process that ensures that all IEP teams effectively consider the assistive technology of students is defined, communicated, and consistently used throughout the agency. Processes may vary from agency to agency to most effectively address student needs under local conditions.

3. **Quality Indicator: IEP team members have the collective knowledge and skills needed to make informed assistive technology decisions and seek assistance when needed.**

Intent: IEP team members combine their knowledge and skills to determine if assistive technology devices and services are needed to remove barriers to student performance. When the assistive technology needs are beyond the knowledge and scope of the IEP team, additional resources and support are sought.

- \*4. **Decisions regarding the need for assistive technology devices and services are based on the student's IEP goals and objectives, access to curricular and extracurricular activities, and progress in the general education curriculum.**

Intent: As the IEP team determines the tasks the student needs to complete and develops the goals and objectives, the team considers whether assistive technology is required to accomplish those tasks.

5. The IEP team **gathers and analyzes data** about the student, customary environments, educational goals, and tasks when considering a student's need for assistive technology devices and services.

Intent: The IEP team shares and discusses information about the student's present levels of achievement in relationship to the environments, and tasks to determine if the student requires assistive technology devices and services to participate actively, work on expected tasks, and make progress toward mastery of educational goals

6. When assistive technology is needed, the IEP team **explores a range** of assistive technology devices, services, and other supports that address identified needs.

Intent: The IEP team considers various supports and services that address the educational needs of the student and may include no tech, low tech, mid-tech and/or high tech solutions and devices. IEP team members do not limit their thinking to only those devices and services currently available within the district.

7. The assistive technology consideration process and **results are documented in the IEP** and include a rationale for the decision and supporting evidence.

Intent: Even though IEP documentation may include a checkbox verifying that assistive technology has been considered, the reasons for the decisions and recommendations should be clearly stated. Supporting evidence may include the results of assistive technology assessments, data from device trials, differences in achievement with and without assistive technology, student preferences for competing devices, and teacher observations, among others.

### **COMMON ERRORS:**

1. AT is considered for students with severe disabilities only.
2. No one on the IEP team is knowledgeable regarding AT.
3. Team does not use a consistent process based on data about the student, environment and tasks to make decisions.
4. Consideration of AT is limited to those items that are familiar to team members or are available in the district.
5. Team members fail to consider access to the curriculum and IEP goals in determining if AT is required in order for the student to receive FAPE.
6. If AT is not needed, team fails to document the basis of its decisions.

\* Data indicates that this item is important, however additional dimension added during revision may require revalidation.



## **Quality Indicators for Assessment of Assistive Technology Needs**

Quality Indicators for Assessment of Assistive Technology Needs is a process conducted by a team, used to identify tools and strategies to address a student's specific need(s). The issues that lead to an AT assessment may be very simple and quickly answered or more complex and challenging. Assessment takes place when these issues are beyond the scope of the problem solving that occurs as a part of normal service delivery.

**1. Procedures for all aspects of assistive technology assessment are clearly defined and consistently applied.**

Intent: Throughout the educational agency, personnel are well informed and trained about assessment procedures and how to initiate them. There is consistency throughout the agency in the conducting of assistive technology assessments. Procedures may include– but are not limited to– initiating an assessment, planning and conducting an assessment, conducting trials, reporting results, and resolving conflicts.

**2. Assistive technology assessments are conducted by a team with the collective knowledge and skills needed to determine possible assistive technology solutions that address the needs and abilities of the student, demands of the customary environments, educational goals, and related activities.**

Intent: Team membership is flexible and varies according to the knowledge and skills needed to address student needs. The student and family are active team members. Various team members bring different information and strengths to the assessment process.

**3. All assistive technology assessments include a functional assessment in the student's customary environments, such as the classroom, lunchroom, playground, home, community setting, or work place.**

Intent: The assessment process includes activities that occur in the student's current or anticipated environments because characteristics and demands in each may vary. Team members work together to gather specific data and relevant information in identified environments to contribute to assessment decisions.

**4. Assistive technology assessments, including needed trials, are completed within reasonable time lines.**

Intent: Assessments are initiated in a timely fashion and proceed according to a timeline that the IEP team determines to be reasonable based on the complexity of student needs and assessment questions. Timelines comply with applicable state and agency requirements.

**5. Recommendations from assistive technology assessments are based on data about the student, environments and tasks.**

Intent: The assessment includes information about the student's needs and abilities, demands of various environments, educational tasks, and objectives. Data may be gathered from sources such as student performance records, results of experimental trials, direct observation, interviews with students or significant others, and anecdotal records.

**\*6. The assessment provides the IEP team with clearly documented recommendations that guide decisions about the selection, acquisition, and use of assistive technology devices and services.**

Intent: A written rationale is provided for any recommendations that are made. Recommendations may include assessment activities and results, suggested devices and alternative ways of addressing needs, services required by the student and others, and suggested strategies for implementation and use.

**7. Assistive technology needs are reassessed any time changes in the student, the environments and/or the tasks result in the student's needs not being met with current devices and/or services.**

Intent: An assistive technology assessment is available any time it is needed due to changes that have affected the student. The assessment can be requested by the parent or any other member of the IEP team.

### **COMMON ERRORS**

1. Procedures for conducting AT assessment are not defined, or are not customized to meet the student's needs.
2. A team approach to assessment is not utilized.
3. Individuals participating in an assessment do not have the skills necessary to conduct the assessment, and do not seek additional help.
4. Team members do not have adequate time to conduct assessment processes, including necessary trials with AT.
5. Communication between team members is not clear.
6. The student is not involved in the assessment process.
7. When the assessment is conducted by any team other than the student's IEP team, the needs of the student or expectations for the assessment are not communicated.

\* Research indicates that this item is important, however additional dimension added during revision may require revalidation.

### **Quality Indicators for Including Assistive Technology in the IEP**

The Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004) requires that the IEP team consider AT needs in the development of every Individualized Education Program (IEP). Once the IEP team has reviewed assessment results and determined that AT is needed for provision of a free, appropriate, public education (FAPE), it is important that the IEP document reflects the team's determination in as clear a fashion as possible. The Quality Indicators for AT in the IEP help the team describe the role of AT in the child's educational program.

**\*1. The education agency has guidelines for documenting assistive technology needs in the IEP and requires their consistent application.**

Intent: The education agency provides guidance to IEP teams about how to effectively document assistive technology needs, devices, and services as a part of specially designed instruction, related services, or supplementary aids and services

**2. All services that the IEP team determines are needed to support the selection, acquisition, and use of assistive technology devices are designated in the IEP.**

Intent: The provision of assistive technology services is critical to the effective use of assistive technology devices. It is important that the IEP describes the assistive technology services that are needed for student success. Such services may include evaluation, customization or maintenance of devices, coordination of services, and training for the student and family and professionals, among others.

**3. The IEP illustrates that assistive technology is a tool to support achievement of goals and progress in the general curriculum by establishing a clear relationship between student needs, assistive technology devices and services, and the student's goals and objectives.**

Intent: Most goals are developed before decisions about assistive technology are made. However, this does not preclude the development of additional goals, especially those related specifically to the appropriate use of assistive technology.

**4. IEP content regarding assistive technology use is written in language that describes how assistive technology contributes to achievement of measurable and observable outcomes.**

Intent: Content which describes measurable and observable outcomes for assistive technology use enables the IEP team to review the student's progress and determine whether the assistive technology has had the expected impact on student participation and achievement.

5. Assistive technology is included in the IEP in a manner that provides a **clear and complete description** of the devices and services to be provided and used to address student needs and achieve expected results.

Intent: IEPs are written so that participants in the IEP meeting and others who use the information to implement the student's program understand what technology is to be available, how it is to be used, and under what circumstances. "Jargon" should be avoided.

**COMMON ERRORS:**

1. IEP teams do not know how to include AT in IEPs.
2. IEPs including AT use a "formula" approach to documentation. All IEPs are developed in similar fashion and the unique needs of the child are not addressed.
3. AT is included in the IEP, but the relationship to goals and objectives is unclear.
4. AT devices are included in the IEP, but no AT services support the use.
5. AT expected results are not measurable or observable.

### **Quality Indicators for Assistive Technology Implementation**

Assistive technology implementation pertains to the ways that assistive technology devices and services, as included in the IEP (including goals/objectives, related services, supplementary aids and services and accommodations or modifications) are delivered and integrated into the student's educational program. Assistive technology implementation involves people working together to support the student using assistive technology to accomplish expected tasks necessary for active participation and progress in customary educational environments.

**1. Assistive technology implementation proceeds according to a collaboratively developed plan.**

Intent: Following IEP development, all those involved in implementation work together to develop a written action plan that provides detailed information about how the AT will be used in specific educational settings, what will be done and who will do it.

**2. Assistive technology is integrated into the curriculum and daily activities of the student across environments.**

Intent: Assistive technology is used when and where it is needed to facilitate the student's access to, and mastery of, the curriculum. Assistive technology may facilitate active participation in educational activities, assessments, extracurricular activities, and typical routines.

**3. Persons supporting the student across all environments in which the assistive technology is expected to be used share responsibility for implementation of the plan.**

Intent: All persons who work with the student know their roles and responsibilities, are able to support the student using assistive technology, and are expected to do so.

**4. Persons supporting the student provide opportunities for the student to use a variety of strategies—including assistive technology— and to learn which strategies are most effective for particular circumstances and tasks.**

Intent: When and where appropriate, students are encouraged to consider and use alternative strategies to remove barriers to participation or performance. Strategies may include the student's natural abilities, use of assistive technology, other supports, or modifications to the curriculum, task or environment.

**5. Training for the student, family and staff are an integral part of implementation.**

Intent: Determination of the training needs of the student, staff, and family is based on how the assistive technology will be used in each unique environment. Training and technical assistance are planned and implemented as ongoing processes based on current and changing needs.

6. **Assistive technology implementation is initially based on assessment data and is adjusted based on performance data.**

Intent: Formal and informal assessment data guide initial decision-making and planning for AT implementation. As the plan is carried out, student performance is monitored and implementation is adjusted in a timely manner to support student progress.

7. **Assistive technology implementation includes management and maintenance of equipment and materials.**

Intent: For technology to be useful it is important that equipment management responsibilities are clearly defined and assigned. Though specifics may differ based on the technology, some general areas may include organization of equipment and materials; responsibility for acquisition, set-up, repair, and replacement in a timely fashion; and assurance that equipment is operational.

### **COMMON ERRORS**

1. Implementation is expected to be smooth and effective without addressing specific components in a plan. Team members assume that everyone understands what needs to happen and knows what to do.
2. Plans for implementation are created and carried out by one IEP team member.
3. The team focuses on device acquisition and does not discuss implementation.
4. An implementation plan is developed that is incompatible with the instructional environments.
5. No one takes responsibility for the care and maintenance of AT devices and so they are not available or in working order when needed.
6. Contingency plans for dealing with broken or lost devices are not made in advance.

### **Quality Indicators for Evaluation of the Effectiveness of Assistive Technology**

This area addresses the evaluation of the effectiveness of the AT devices and services that are provided to individual students. It includes data collection, documentation and analysis to monitor changes in student performance resulting from the implementation of assistive technology services. Student performance is reviewed in order to identify if, when, or where modifications and revisions to the implementation are needed.

- 1. Team members share clearly defined responsibilities to ensure that data are collected, evaluated, and interpreted by capable and credible team members.**

Intent: Each team member is accountable for ensuring that the data collection process determined by the team is implemented. Individual roles in the collection and review of the data are assigned by the team. Data collection, evaluation, and interpretation are led by persons with relevant training and knowledge. It can be appropriate for different individual team members to conduct these tasks.

- 2. Data are collected on specific student achievement that has been identified by the team and is related to one or more goals.**

Intent: In order to evaluate the success of assistive technology use, data are collected on various aspects of student performance and achievement. Targets for data collection include the student's use of assistive technology to progress toward mastery of relevant IEP and curricular goals and to enhance participation in extracurricular activities at school and in other environments.

- 3. Evaluation of effectiveness includes the quantitative and qualitative measurement of changes in the student's performance and achievement.**

Intent: Changes targeted for data collection are observable and measurable, so that data are as objective as possible. Changes identified by the IEP team for evaluation may include accomplishment of relevant tasks, how assistive technology is used, student preferences, productivity, participation, and independence, quality of work, speed and accuracy of performance, and student satisfaction, among others.

- 4. Effectiveness is evaluated across environments during naturally occurring and structured activities.**

Intent: Relevant tasks within each environment where the assistive technology is to be used are identified. Data needed and procedures for collecting those data in each environment are determined.

5. **Data are collected to provide teams with a means for analyzing student achievement and identifying supports and barriers that influence assistive technology use to determine what changes, if any, are needed.**

Intent: Teams regularly analyze data on multiple factors that may influence success or lead to errors in order to guide decision-making. Such factors include not only the student's understanding of expected tasks and ability to use assistive technology but also student preferences, intervention strategies, training, and opportunities to gain proficiency.

6. **Changes are made in the student's assistive technology services and educational program when evaluation data indicate that such changes are needed to improve student achievement.**

Intent: During the process of reviewing evaluation data, the team decides whether changes or modifications need to be made in the assistive technology, expected tasks, or factors within the environment. The team acts on those decisions and supports their implementation.

7. **Evaluation of effectiveness is a dynamic, responsive, ongoing process that is reviewed periodically.**

Intent: Scheduled data collection occurs over time and changes in response to both expected and unexpected results. Data collection reflects measurement strategies appropriate to the individual student's needs. Team members evaluate and interpret data during periodic progress reviews.

### **COMMON ERRORS:**

1. An observable, measurable student behavior is not specified as a target for change.
2. Team members do not share responsibility for evaluation of effectiveness.
3. An environmentally appropriate means of data collection and strategies has not been identified.
4. A schedule of program review for possible modification is not determined before implementation begins.



**Quality Indicators for Assistive Technology Transition**  
(NEW AREA, 2003 – NOT INCLUDED IN VALIDATION STUDY)

Transition plans for students who use assistive technology address the ways the student's use of assistive technology devices and services are transferred from one setting to another. Assistive technology transition involves people from different classrooms, programs, buildings, or agencies working together to ensure continuity. Self-advocacy, advocacy and implementation are critical issues for transition planning.

1. **Transition plans address assistive technology needs of the student, including roles and training needs of team members, subsequent steps in assistive technology use, and follow-up after transition takes place.**

Intent: The transition plan assists the receiving agency/team to successfully provide needed supports for the AT user. This involves the assignment of responsibilities and the establishment of accountability.

2. **Transition planning empowers the student using assistive technology to participate in the transition planning at a level appropriate to age and ability.**

Intent: Specific self-determination skills are taught that enable the student to gradually assume responsibility for participation and leadership in AT transition planning as capacity develops. AT tools are provided, as needed, to support the student's participation.

3. **Advocacy related to assistive technology use is recognized as critical and planned for by the teams involved in transition.**

Intent: Everyone involved in transition advocates for the student's progress, including the student's use of AT. Specific advocacy tasks related to AT use are addressed and may be carried out by the student, the family, staff members or a representative.

4. **AT requirements in the receiving environment are identified during the transition planning process.**

Intent: Environmental requirements, skill demands and needed AT support are determined in order to plan appropriately. This determination is made collaboratively and with active participation by representatives from sending and receiving environments.

**5. Transition planning for students using assistive technology proceeds according to an individualized timeline.**

Intent: Transition planning timelines are adjusted based on specific needs of the student and differences in environments. Timelines address well mapped action steps with specific target dates and ongoing opportunities for reassessment.

**6. Transition plans address specific equipment, training and funding issues such as transfer or acquisition of assistive technology, manuals and support documents.**

Intent: A plan is developed to ensure that the AT equipment, hardware, and/or software arrives in working condition accompanied by any needed manuals. Provisions for ongoing maintenance and technical support are included in the plan.

**COMMON ERRORS:**

1. Lack of self-determination, self-awareness and self-advocacy on part of the individual with a disability (and/or advocate).
2. Lack of adequate long range planning on part of sending and receiving agencies (timelines).
3. Inadequate communication and coordination.
4. Failure to address funding responsibility.
5. Inadequate evaluation (documentation, data, communication, valued across settings) process.
6. Philosophical differences between sending and receiving agencies.
7. Lack of understanding of the law and of their responsibilities.

### **Quality Indicators for Administrative Support of Assistive Technology Services**

This area defines the critical areas of administrative support and leadership for developing and delivering assistive technology services. It involves the development of policies, procedures, and other supports necessary to sustain effective assistive technology programs.

- 1. The education agency has written procedural guidelines that ensure equitable access to assistive technology devices and services for students with disabilities, if required for a free, appropriate, public education (FAPE).**

Intent: Clearly written procedural guidelines help ensure that students with disabilities have the assistive technology devices and services they require for educational participation and benefit. Access to assistive technology is ensured regardless of severity of disability, educational placement, geographic location, or economic status.

- 2. Quality Indicator: The education agency broadly disseminates clearly defined procedures for accessing and providing assistive technology services and supports the implementation of those guidelines.**

Intent: Procedures are readily available in multiple formats to families and school personnel in special and general education. All are aware of how to locate the procedures and are expected to follow procedures whenever appropriate.

- 3. The education agency includes appropriate assistive technology responsibilities in written descriptions of job requirements for each position in which activities impact assistive technology services.**

Intent: Appropriate responsibilities and the knowledge, skills, and actions required to fulfill them are specified for positions from the classroom through the central office. These descriptions will vary depending upon the position and may be reflected in a position description, assignment of duty statement, or some other written description.

- 4. The education agency employs personnel with the competencies needed to support quality assistive technology services within their primary areas of responsibility at all levels of the organization.**

Intent: Although different knowledge, skills, and levels of understanding are required for various jobs, all understand and are able to fulfill their parts in developing and maintaining a collaborative system of effective assistive technology services to students.

- 5. The education agency includes assistive technology in the technology planning and budgeting process.**

Intent: A comprehensive, collaboratively developed technology plan provides for the technology needs of all students in general education and special education.

**6. The education agency provides access to on-going learning opportunities about assistive technology for staff, family, and students.**

Intent: Learning opportunities are based on the needs of the student, the family, and the staff and are readily available to all. Training and technical assistance include any topic pertinent to the selection, acquisition, or use of assistive technology or any other aspect of assistive technology service delivery.

**7. The education agency uses a systematic process to evaluate all components of the agency-wide assistive technology program.**

Intent: The components of the evaluation process include, but are not limited to, planning, budgeting, decision-making, delivering AT services to students, and evaluating the impact of AT services on student achievement. There are clear, systematic evaluation procedures that all administrators know about and use on a regular basis at central office and building levels.

**COMMON ERRORS:**

1. If policies and guidelines are developed, they are not known widely enough to assure equitable application by all IEP teams.
2. It is not clearly understood that the primary purpose of AT in school settings is to support the implementation of the IEP for the provision of a free, appropriate, public education (FAPE).
3. Personnel have been appointed to head AT efforts, but resources to support those efforts have not been allocated. (Time, a budget for devices, professional development, etc.)
4. AT leadership personnel try to or are expected to do all of the AT work and fail to meet expectations.
5. AT services are established but their effectiveness is never evaluated.

**Quality Indicators for Professional Development and Training in Assistive Technology**  
(NEW AREA, 2003 – NOT INCLUDED IN VALIDATION STUDY)

This area defines the critical elements of quality professional development and training in assistive technology. Assistive technology professional development and training efforts should arise out of an ongoing, well-defined, sequential and comprehensive plan. Such a plan can develop and maintain the abilities of individuals at all levels of the organization to participate in the creation and provision of quality AT services. The goal of assistive technology professional development and training is to increase educators' knowledge and skills in a variety of areas including, but not limited to: collaborative processes; a continuum of tools, strategies, and services; resource; legal issues; action planning; and data collection and analysis. Audiences for professional development and training include: students, parents or caregivers, special education teachers, educational assistants, support personnel, general education personnel, administrators, AT specialists, and others involved with students.

1. **Comprehensive assistive technology professional development and training support the understanding that assistive technology devices and services enable students to accomplish IEP goals and objectives and make progress in the general curriculum.**

Intent: The Individuals with Disabilities Education Act (IDEA) requires the provision of a free and appropriate public education (FAPE) for all children with disabilities. The Individualized Education Plan (IEP) defines FAPE for each student. The use of AT enables students to participate in and benefit from FAPE. The focus of all AT Professional Development and training activities is to increase the student's ability to make progress in the general curriculum and accomplish IEP goals and objectives.

2. **The education agency has an AT professional development and training plan that identifies the audiences, the purposes, the activities, the expected results, evaluation measures and funding for assistive technology professional development and training.**

Intent: The opportunity to learn the appropriate techniques and strategies is provided for each person involved in the delivery of assistive technology services. Professional development and training are offered at a variety of levels of expertise and are pertinent to individual roles.

3. **The content of comprehensive AT professional development and training addresses all aspects of the selection, acquisition and use of assistive technology.**

Intent: AT professional development and training address the development of a wide range of assessment, collaboration and implementation skills that enable educators to provide effective AT interventions for students. The AT professional development and training plan includes, but is not limited to: collaborative processes; the continuum of tools, strategies and services; resources; legal issues; action planning; and data collection.

**4. AT professional development and training address and are aligned with other local, state and national professional development initiatives.**

Intent: Many of the effective practices used in the education of children with disabilities can be enhanced by the use of assistive technology. The functional use of AT is infused into all professional development efforts.

**5. Assistive technology professional development and training include ongoing learning opportunities that utilize local, regional, and/or national resources.**

Intent: Professional development and training opportunities enable individuals to meet present needs and increase their knowledge of AT for use in future. Training in AT occurs frequently enough to address new and emerging technologies and practices and is available on a repetitive and continuous schedule. A variety of AT professional development and training resources are used.

**6. Professional Development and Training in assistive technology follow research-based models for adult learning that include multiple formats and are delivered at multiple skill levels.**

Intent: The design of Professional Development and Training for AT recognizes adults as diverse learners who bring various levels of prior knowledge and experience to the training and can benefit from differentiated instruction using a variety of formats and diverse timeframes (e.g., workshops, distance learning, follow-up assistance, ongoing technical support).

**7. The effectiveness of assistive technology professional development and training is evaluated by measuring changes in practice that result in improved student performance.**

Intent: Evidence is collected regarding the results of AT professional development and training. The professional development and training plan is modified based on these data in order to ensure changes educational practice that result in improved student performance.

**COMMON ERRORS:**

1. The educational agency does not have a comprehensive plan for ongoing AT professional development and training.
2. The educational agency's plan for professional development and training is not based on AT needs assessment and goals.
3. Outcomes for professional development are not clearly defined and effectiveness is not measured in terms of practice and student performance.
4. A continuum of ongoing professional development and training is not available.
5. Professional development and training focuses on the tools and not the process related to determining student needs and integrating technology into the curriculum.
6. Professional development and training is provided for special educators but not for administrators, general educators and instructional technology staff.