



Early Intervention Management and Research Group
(EMRG)

White Paper No. 1

November 2008

The Relationship Between the Ages & Stages Questionnaires[®] (ASQ) and the Assessment, Evaluation, and Programming System for Infants and Children (AEPS[®])¹

By Diane Bricker, Ph.D., with assistance from David Allen, Ph.D.,
Jantina Clifford, Ph.D., Kristie Pretti-Frontczak, Ph.D., Kris
Slentz, Ph.D., & Jane Squires, Ph.D.

Suggested citation:

Bricker, D., Allen, D, Clifford, J, Pretti-Frontczak, K., Slentz, K., & Squires, J. (2008). *The relationship between the Ages & Stages Questionnaires[®] (ASQ) and the Assessment, Evaluation, and Programming System for Infants and Children (AEPS[®])* (EMRG White Paper No. 1). Eugene, OR: Early Intervention Management and Research Group (EMRG).

¹ This white paper is the first of the Early Intervention Management and Research Group (EMRG) White Paper Series: EMRG, Eugene, OR. EMRG is a non-profit mutual benefit corporation created to manage future developments associated with linked measurement and curriculum systems designed to enhance early childhood intervention services offered to young children and their families. See www.aepslinkedssystem.com for other white papers in the series.

INTRODUCTION

All users of assessment measures with young children should be careful to select the genre of measures that is appropriate for their intended purpose because the validity of most measures is based on use for a single purpose. For example, screening tools have been developed and validated for use as a screening measure and not for other purposes, such as documenting child progress. The purpose of this paper is to clarify the differences between two measures that are used frequently to assess young children: the Ages & Stages Questionnaires and the Assessment, Evaluation, and Programming System for Infants and Children. Specifically, two important issues are addressed: the target populations for whom the measures are intended, and the purpose or intended use of the measures.

The *Ages & Stages Questionnaires*[®] (ASQ), *Second Edition* (Bricker & Squires, 1999), is a developmental screening measure designed for use with children from birth to 60 months of age and to be completed by parents or other caregivers. The *Assessment, Evaluation, and Programming System for Infants and Children* (AEPS[®]), *Second Edition*, (Bricker, 2002) is a criterion referenced curriculum-based assessment designed to be used with young children with disabilities and those who are at risk. The developmental range of the AEPS is from birth to 6 years of age.

The target populations for both tools include two groups: 1) children with known conditions or disabilities, and 2) children at risk. Descriptions of these two groups are offered below as well as a discussion of which measures (i.e., AEPS or ASQ) should be used with each population.

Assessment and evaluation measures can be used for a variety of purposes, including screening, eligibility assessment or evaluation, program assessment, progress monitoring, and program evaluation. Child assessment often begins with *screening*, which entails the use of brief procedures to determine if children are developmentally on target (i.e., consistently performing behaviors expected for their chronological age) or not (i.e., consistently not performing behaviors expected for their chronological age). Children who are screened should be referred for *eligibility assessment* or *eligibility evaluation* to determine if they meet pre-established criteria to be eligible to receive therapeutic or educational services. *Program assessment* refers to more in-depth measurement to determine children's goals and objectives. In this paper, *progress monitoring* refers to the

tracking of individual child progress toward acquisition of identified goals and objectives. Finally, *program evaluation* refers to conducting global comparisons over time.

Given these definitions, ASQ should be used as a first-level screen to determine if children are developing within normal limits or if their development is suspect and thus should receive follow-up assessment. Most children with moderate to serious developmental delays or problems do not need to be screened but rather should be referred for eligibility evaluation. AEPS is a curriculum-based assessment that can be used for the remaining four purposes of assessment/evaluation: 1) determining eligibility for services, 2) programmatic assessment to develop goals and intervention content, 3) child progress monitoring, and 4) program evaluation.

CHILDREN WITH KNOWN CONDITIONS OR DISABILITIES

Children with known conditions (e.g., Down syndrome, cerebral palsy) that almost certainly produce a disability do NOT require screening; however, children whose development is questionable or appears mildly atypical should receive screening. Children with known conditions and children who are identified during the screening process should be evaluated to determine if they are eligible for services. (In many states children with known conditions automatically qualify for Individuals with Disabilities Education Act [IDEA] of 1990 [PL 101-476] and Individuals with Disabilities Improvement Act [IDEA] of 2004 [PL 108-446] services, and in these cases program assessment can be initiated in lieu of eligibility assessment/evaluation.) Although not all states approve the use of curriculum-based measures to determine eligibility for services, the use of a curriculum-based measure, such as AEPS, is the most effective and efficient type of assessment to establish eligibility. AEPS offers authentic assessment (i.e., data are collected while observing children participate in play and daily activities) and results can be used directly to establish eligibility for services as well as to determine high quality goals and intervention content.

AEPS can be used in two distinct ways to determine children's eligibility for services. First, valid cutoff scores for age intervals from 4 to 66 months have been developed for AEPS. For a description of how to use AEPS cutoff scores, see *Administration Guide*, Appendix F, of Volume 1 in the AEPS series (Bricker, 2002), or the *EMRG White Paper 3, Deriving and Using AEPS Cutoff Scores to Determine Eligibility* (Bricker, Clifford, Yovanoff, & Waddell, 2006). Second, the AEPS Eligibility Scripts^a (Macy & Bricker, 2004) can be administered to individual children to determine their eligibility for IDEA

services. The AEPS Eligibility Scripts is a set of scripted activities that systematically assess AEPS items using a semi-standardized format that permits comparison across children. For a description of how to use the AEPS Eligibility Scripts, see *The Development and Implementation of the Assessment, Evaluation, and Programming System (AEPS) Standardized Scripts and Activities: An Exploratory Study* (Macy, 2002) and the article “Validity and Reliability of a Curriculum-Based Assessment Approach to Determine Eligibility for Part C Services” in the *Journal of Early Intervention* (Macy, Bricker, & Squires, 2005).

For children with disabilities, program assessment can be an extension of the eligibility assessment/evaluation if a measure such as AEPS is used. Results from AEPS can be used to develop high quality goals and objectives and to guide intervention efforts. At suitable intervals following intervention (e.g., quarterly), re-administration of AEPS provides systematic feedback on children’s progress toward targeted goals and objectives.

CHILDREN AT RISK

Children with known risk factors (e.g., low-income family, medical problems) comprise the second population addressed in this paper. Children with documented risk conditions or whose development is suspect should be screened with a measure that has been determined to be both valid and reliable. ASQ offers general screening in five developmental areas: communication, gross motor, fine motor, problem solving, and personal-social. The *Ages & Stages Questionnaires: Social-Emotional*[®] (ASQ:SE) (Squires, Bricker, & Twombly, 2002) may be used with populations of children at risk and also with children who have a documented disability to determine if they may also have a social-emotional problem. The ASQ-I (Clifford, 2006) is an expansion version of the ASQ that has more items than contained on individual questionnaires. Use of the ASQ-I with children who have a disability is usually not appropriate because this measure does not provide sufficient detail on the children’s repertoires to develop valid IEPs, IFSPs, or intervention content.

Use of ASQ and ASQ:SE permits parents to impart information in a reliable manner so that children’s developmental status can be determined. Screening can produce one of three results: the child’s performance suggests typical development, the child’s performance suggests a questionable level of development (i.e., scores are near the cutoff

points), or the child’s performance suggests a delay or disability (i.e., scores are at or below the cutoffs).

Children who appear to be developing typically may be monitored over time and re-screened at suitable intervals (e.g., once a quarter). Children whose scores are below the established cutoffs should be referred for assessment to determine if they are eligible for IDEA services (i.e., administer the AEPS). Children whose scores are in the questionable range may be referred for further assessment/evaluation or, in some cases, referred to an appropriate intervention program (e.g., Head Start or Parts B and C of IDEA).

INTENDED PURPOSES

As noted earlier, the purpose of ASQ is to screen young children for developmental problems, while the primary purposes of the AEPS are to determine eligibility, yield content to develop goals and intervention activities, and permit evaluation of child progress. Table 1 provides a comparison of the AEPS and ASQ measures for the processes of screening, eligibility assessment/evaluation, program assessment, progress monitoring, and program evaluation.

Table 1. Comparison of AEPS and ASQ measures

Measure	Screen	Eligibility Assessment /Evaluation	Program Assessment	Progress Monitor	Program Evaluation	Parent Completion	Completion Time
AEPS	No	x	Yes	Yes	Yes	No ²	a
AEPS-Eligibility Scripts	No	Yes	No	No	Yes	No	b
ASQ	Yes	No	No	No	No	Yes	c
ASQ: SE	Yes	No	No	No	No	Yes	c
ASQ-I	No	No	No	No	Yes	Yes	d

a Completion time is usually 1–2 hours and can be done over several sessions.

b Completion time is usually less than 1 hour.

c Completion time is usually less than 15 minutes.

d Completion time is usually less than 30 minutes.

x The AEPS cutoffs can be used to corroborate eligibility decisions or independently establish eligibility.

^aData collection on the ASQ-I and the AEPS: Eligibility Scripts are in a preliminary phase and currently each lacks support as a valid and reliable measurement tool.

Figure 1 offers an overview of AEPS and ASQ uses for children with known conditions or disabilities and for those classified as at risk. At the top of Figure 1, the linked processes of screening, eligibility assessment/evaluation, program assessment, intervention, and progress monitoring/program evaluation are listed. In this figure, progress monitoring and program evaluation have been combined. Next listed are the uses of ASQ and ASQ-I under each relevant process for children at risk. Finally, uses of AEPS and the AEPS: Eligibility Scripts are listed under each relevant process for children who have disabilities.

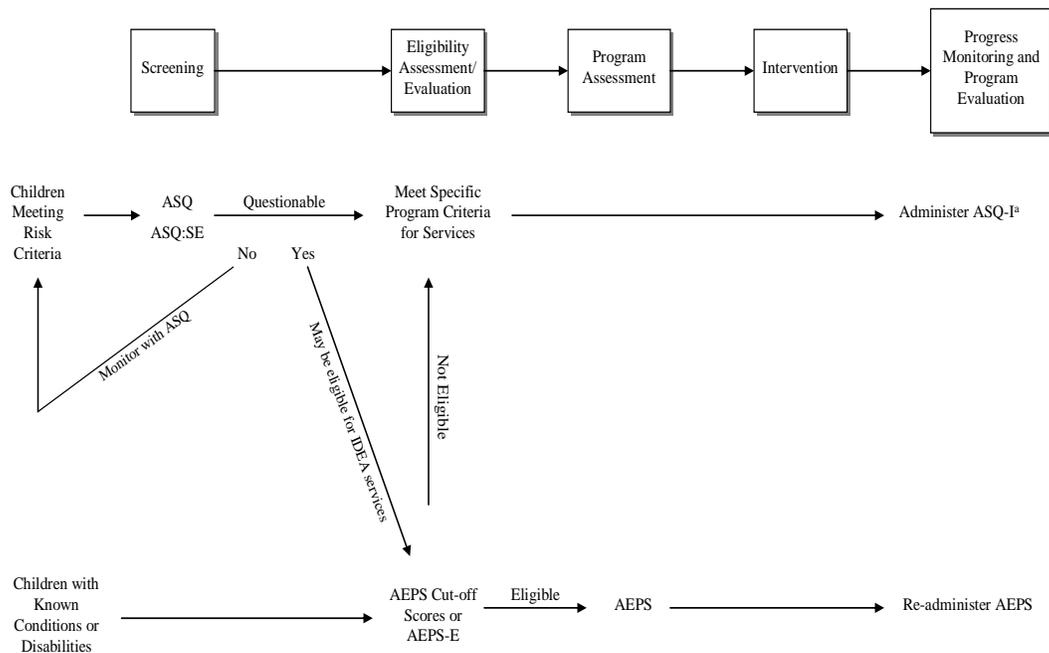


Figure 1. Relationship between the use of the ASQ, ASQ: SE, and ASQ-I with children who are at risk and the AEPS and AEPS-Eligibility Scripts with children who have disabilities.

^a ASQ-I can be used for program evaluation for children at risk.

Most programs who serve children at risk may not have the resources necessary to conduct in-depth and comprehensive assessments (i.e., administering AEPS) of their children. However, they can use ASQ-I, which can be completed independently by caregivers, through observation or by caregiver interview. ASQ-I is more comprehensive than ASQ (i.e., has more items) but is less detailed and comprehensive than AEPS (i.e., does not have as many items, and many items are not functional). In addition, ASQ-I does not have detailed criteria for each item and is not linked to a curriculum. Thus, ASQ-I can provide a more detailed picture of children’s developmental repertoires than

ASQ but does not yield outcomes as comprehensive as AEPS and therefore is not generally adequate to determine children's goals and objectives (i.e., program assessment). ASQ-I may be useful for programs that need to conduct both screening and program evaluation but do not need to develop individual goals and objectives for participating children or monitor individual child progress. Finally and importantly, AEPS and ASQ differ in terms of item content. Items (i.e., goals and objectives) on AEPS were included because they target critical educational and developmental skills and information. All AEPS items are potentially appropriate functional goals and objectives. Items on the ASQ measures were not selected because of their educational content, but because they discriminate between children of different chronological ages. Thus, AEPS items can be used to formulate intervention content while items on the ASQ measures generally should not be used to formulate educational or developmental goals or intervention content.

As noted, ASQ and AEPS are designed for different purposes (i.e., ASQ primarily for screening and AEPS for eligibility assessment/evaluation, program assessment, progress monitoring, and program evaluation); however, when linked, these measures can provide a process for cumulatively gathering child information.

The ASQ or ASQ: SE outcomes yield a preliminary and limited profile of children's developmental skills and/or social-emotional competence. This limited developmental profile can be used as the starting place for conducting more comprehensive and in-depth assessment using AEPS. That is, the results from ASQ and, in some instances, ASQ: SE can serve as a beginning place for completing AEPS. For example, if a child is able to cut a straight line and/or copy three shapes—items on the 48 month questionnaire of ASQ, these data can be used to corroborate similar items on AEPS.

In summary, this paper addressed the need to carefully discriminate between assessment purposes. In particular, the difference between a screening tool, ASQ, and a comprehensive curriculum-based assessment, AEPS, were discussed with the intent that these important tools be used appropriately for the benefit of young children and their families.

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