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Assessments in Adapted Physical Education

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The Individual with Disabilities Education Act (2004) Assessment Mandate (§300.304) requires public schools to use technically sound instruments and best practices in evaluation. Technically sound instruments generally refer to assessments that have been shown through research to be **valid and reliable** (71 Fed. Reg. at 46642) for full evaluations (i.e., initial, triennial, exit). To determine if a student is performing developmentally below their peers, it is necessary to use a **formal (standardized) assessment**, unless the Individualized Education Program (IEP) committee has determined an **informal (non-standardized) assessment** to be more appropriate. Informal (non-standardized) assessments cannot provide specific data that can be definitively used to determine eligibility and placement needs (e.g., gross motor quotient, age equivalent). However, if standardized assessment is not appropriate and the IEP team determines there is a more functional and appropriate assessment, then that assessment can be used with team support (e.g., *Project MOBILITEE, Region 10 Supplemental Assessments*).

Formal (standardized) assessment follows specific procedure and protocol that assessors must adhered to when administering the instrument. Examples include specific instructions for the testing environment, equipment, administration instructions, data-recording process, and how to interpret results. Assessments become standardized through **empirical research**, which is achieved by measuring the validity and reliability of an instrument. **Validity** is the extent to which an instrument measures what it is supposed to measure (Thomas et al., 2015). **Reliability** refers to the consistency of a measure. Several factors must be considered when establishing these measures including, but not limited to, age range, regions, ethnic diversity, and disability type. An assessment instrument will only be standardized within the parameter measured. For example, if an assessment is standardized for children 3.0 to 10.11 years of age, and the assessment is used on a 12-year-old, it would not be considered a formal (standardized) assessment to use with that student. The assessment can still be used with IEP team decision, however, it would be an informal (non-standardized) assessment if not used within the parameters of the standardization and needs to be reported as such to all parties.

Assessment information needs to be derived from multiple sources to get a complete and clear picture of the student's skills and abilities, as well as, how their skills and abilities will fit with the general physical education curriculum and setting (Bittner et al., 2020). The Individual with Disabilities Education Act (2004) Assessment Mandate (§300.304) also requires multiple assessments be used for determining an appropriate educational program for the child. Thus, for any initial, triennial, or exit assessment, formal (standardized) assessment AND informal (non-standardized) assessment must be used. It is inappropriate and unacceptable to base any eligibility decision upon the results of a single assessment instrument; tests alone will not give a comprehensive picture of how a student performs or what they can or cannot do (present level of performance). Only by systematically collecting data through a variety of approaches (e.g., standardized and information testing, observations, interviews, rubrics) and from a variety of sources (e.g., parents, teachers, related service personnel) can an adequate picture be obtained of the student's strengths and needs.

Bittner and Foster (2021) conducted a survey to determine which assessments where most frequently used in adapted physical education (APE). The **preschool** motor assessments reported by APE teachers nationally used most frequently were *Test of Gross Motor Development-2* (*TGMD-2*; 32%), *Curriculum, Assessment, Resources, Evaluation (CARE-R;* 19%), and *Brigance Diagnostic Inventory of Early Development* (17%). The motor assessments used most frequently for **elementary** school students were *TGMD-2* (58%), *Adapted Physical Education Assessment Scale (APEAS II Elementary Level*; 20%), and *Competency Testing for Adapted Physical Education* (*CTAPE*; 13%). For **middle school** students, the assessments used most frequently were *APEAS II Secondary Level* (28%) and *CTAPE* (26%). For **high school** students, the most frequently used motor assessments were also *APEAS II Secondary Level* (21%) and *CTAPE* (21%). For students with **high needs of support** (i.e., severe/profound disabilities), the *Kounas Assessment of Limited Mobility Students* (*KALMS*; 20%) and *CARE-R* (20%) were the most frequently used motor assessments. When asked to rank motor assessments by their overall frequency of use, APE teachers chose *TGMD-2* (50%), *APEAS* (42%), and *CTAPE* (39%).

APE teachers need to use a standardized assessment for initial, triennial, or exit assessment. In addition, IDEA mandates multiple assessments (i.e., standardized, non-standardized) be considered. There are a variety of APE assessments that may be considered. Which assessments to select should involve many factors including, but not limited to, age, purpose of the assessment, and functioning level of the student. See Table 1 for an overview of some of the more prevalently used assessments used in APE.

Table 1

Selected Adapted Physical Education Assessments

Assessment	Purpose	Target population	Standardization	Int
Adapted Physical Education Assessment Scale (APEAS) • *Preschool* • *Elementary* • *Secondary*	To assess perceptual motor function, object control, locomotor skills, physical fitness, and adaptive behaviors to determine APE need	2 to 4.6 years 4.6 to 11-year-olds 12 years +	Non-standardized (informal)*	Percentile r
	https://www.shapeamerica.org/prodev/workshops/adapted/apeasii.aspx			
Apache Motor Skill Assessment Test (AMSAT)	Advanced motor movements	10 to 19 years	Standardized (formal) assessment, but has not been peer reviewed and was self-published	Norm refer Criterion re
	https://www.adaptedpe.com/			
Brigance Diagnostic Inventory of Early Development	Preambulatory Motor Skills and Behaviors, Gross Motor Skills and Behaviors	Birth to 7 years	Standardized (formal)	Test yields scaled scor the student assessment scores for i which can eligibility)
	https://www.curriculumassociates.com/products/brigance			
Brockport Physical Fitness Test (Winnick & Short)	To assess physical fitness of youth with disabilities	10 to 17-year-olds	Standardized (formal)	Each test it referenced Zone; Adap
	https://us.humankinetics.com/products/brockport-physical-fitness-test-manual-2nd-edition-with			
Bruinicks Oseretsky Test of Motor Proficiency (BOT-2)	To assess bilateral coordination, running speed and agility, and strength in APE	4 to 21.11 years old	Standardized (formal)	Utilize poi ranking and performanc from 0-320
	https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Oseretsky-Test-of-Motor-Proficiency-%7C-Second-Edition/p/100000648.html			

Competency Testing for Adapted Physical Education (CTAPE)	Evaluative assessment of locomotor, kinesthetic, balance, and sport skills in conjunction with fitness levels to determine APE need	6 to 15-year-olds	Standardized (formal)	70% to 100 69% to 45% 44% to 20% 19% to 0%
	https://www.wrightslaw.com/info/ape.la.elig.crit.pdf			
CTAPE and LaMAP Assessment Supplement (CLAS)	To provide additional information on a student gross motor abilities after scoring 19% or below on the CTAPE or LaMAP	2.6 to 15-year-olds	Non-standardized (informal)	(+) = perfo (-) = did n as stated E= emergi N/A = non-
	https://www.wrightslaw.com/info/ape.la.elig.crit.pdf			
Curriculum, Assessment, Resources, Evaluation (CARE-R)	To assess object control, health and fitness, perceptual and fine motor skills	All ages	Non-standardized (informal)	Age equiva
	https://www.lacoe.edu/Portals/0/Curriculum-Instruction/SH_PE/CARE-R%20Flyer.pdf?ver=2			
FitnessGram	Assessment designed to enhance fitness by providing feedback on student's health-related fitness	5 to 19-year-olds	Standardized (formal)	Standardize leading to Zone", "Ne "Healthy F
	https://us.humankinetics.com/products/fitnessgram-administration-manual-5th-edition-with-we			
Kounas Assessment of Limited Mobility Students Revised-(KALMS)	Specifically for Orthopedically Impaired students	3 to 21 years	Non-standardized (informal)	Subtests in Awareness Coordinati
	http://kalmstest.com/			
Hawaii Early Learning Profile (HELP)	Family centered curriculum-based assessment process for infants and toddlers and their families.	Birth to 3 years and 3 to 6 years (separate protocols)	Non-standardized (informal)	Subtests in Communic expressive) Social-Emo
	https://www.vort.com/			
	To assess motor skills of young kids	2.6 to 5.11-year-olds	Non-standardized (informal)	70-100% =

Louisiana Motor Assessment for Preschoolers (LaMAP)				45-69% = r 20-44% = r 0-19% = se
	https://www.wrightslaw.com/info/ape.la.elig.crit.pdf			
Oregon Project	To assess gross motor skills of visually impaired preschool students	3 to 5-year-olds	Non-standardized (informal)	+ Has skill - Items the
	https://www.perkinselearning.org/content/oregon-project-visually-impaired-blind-preschool-ch			
Peabody Developmental Motor Scales	To assess the gross and fine motor skills of children	Birth to 5 years	Standardized (formal)	Composite Quotient", "Total Mot
	https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Developmental-Motor-Scales-%7C-Second-Edition/p/100000249.html			
Physical Activity Profile of Independence for Individuals with Severe and Profound Impairments (PAPI ISAPI)	Assesses the levels of independence for engaging in rudimentary skills, fundamental skills, and personal-social skills.	5 to 21-year-olds	Non-standardized (informal)	Levels of i analysis rel Education
	https://docs.google.com/file/d/0B-NTczGMqliIX2ttQkVIY3ZwTEU/view?resourcekey=0-DLGdmbFPTdkwPhgQnDGWAQ			
Project MOBILITEE	APE assessment of physical/motor fitness to develop a curriculum guide going forward	5–21-year-olds	Non-standardized (informal)	Scoring sys as dictated 1 = there is 4 = an aver
	https://www.tahperd.org/web/images/pdfs/about%20us/divisions/Project_MOBILITEE.pdf			
Sensory Processing Assessment of Responses (Weiner & Davis, 2019)	Assesses individual responses to stimuli through the eight sensory systems: auditory, gustatory, interoception, olfactory, proprioception, tactile, vestibular, and visual.	3+ years	Non-standardized (informal)	Avoids (A) out (S)). Cl often obser next to the descriptors
	brad.m.weiner@gmail.com			

Special Olympics Motor Activities Training Program	To prepare athletes for sport-specific activities appropriate for their ability levels	8 years +	Non-standardized (informal)	Ability to c
	https://www.specialolympics.org/our-work/sports/motor-activity-training-program			
Test of Gross Motor Development-3 (Ulrich, 2019)	Assessment to identify children with gross motor deficits	3 to 10.11-year-olds	Standardized (formal)	Norm refer Criterion re Gross moto
	https://www.proedinc.com/Products/14805/tgmd3-test-of-gross-motor-developmentthird-editio			
Test of Secondary Basic Sport Skills (Vetter, 2021)	Identifies deviations or performance errors in performing skills	11.6 to 15.5 years	Standardized (formal)	10 skills an Checklist
	https://us.humankinetics.com/products/test-of-secondary-basic-sports-skills-digital-manual			

*SHAPE America recently announced the validation of *APEAS Elementary* and *APEAS Secondary*. However, the authors believe APEAS has NOT been standardized due to concerns with:

- Sample size (only used 30 children)
- Age of participants (APEAS Secondary is for youth 12-17 but this sample only used children 6-12)
- No demographics, disabilities, gender provided
- No stratified random sample (only participants from New York area)
- Only one field examiner- no interrater reliability
- Not peer reviewed
- Low reliability scores, yet still being used:
    - Postures (.59) "In the current analysis, Imitation of Postures showed to be not reliable and it is likely that adding repeated measure would not correct the problem"
    - Balance L Closed (.73)
- Locomotor moderate correlation to *TGMD-2* (r = .55)

https://apeas.shapeamerica.org/Upload/resources/Shape-Report-with-Full-Analysis.pdf


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