

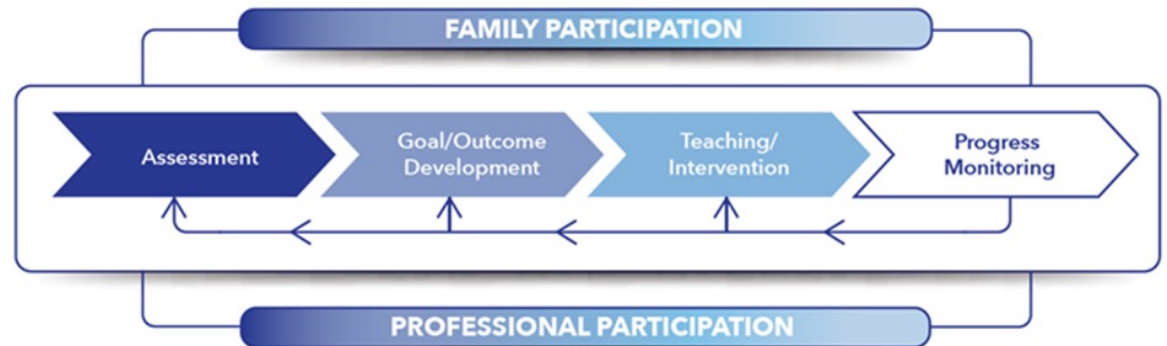
Validating the Assessment, Evaluation and Programming System (AEPS) in International Contexts



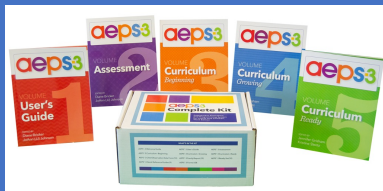
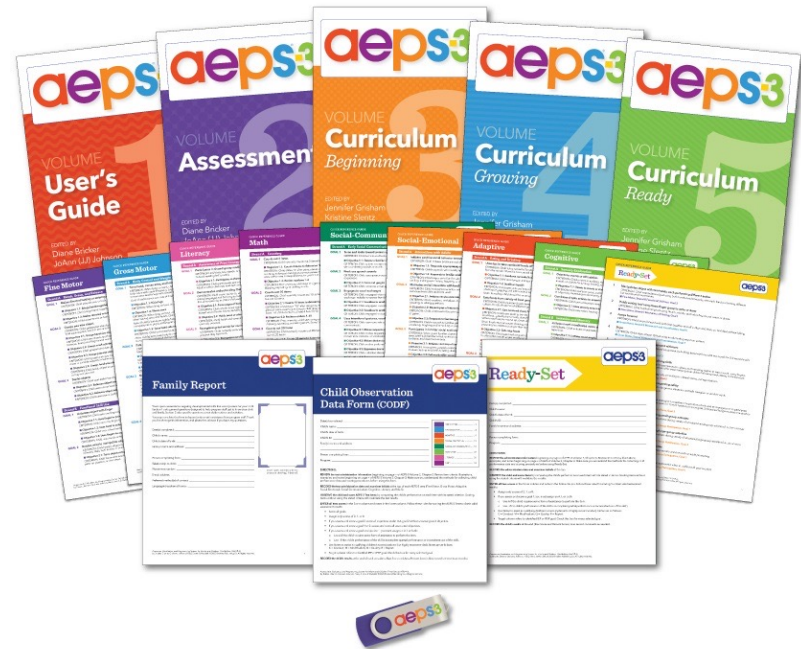
Overview of Assessment, Evaluation, and Programming System (AEPS)

AEPS-3 is a

- Curriculum-based and criterion-referenced assessment, used to . . .
- Develop individualized goals and outcomes for children, in order to . . .
- Design appropriate instruction for individual children and groups of children, and then . . .
- Measure whether the teaching/intervention is effective or not.



Assessment, Evaluation, and Programming System for Infants and Children, Third Edition (AEPS®-3), Bricker, Dionne, Grisham, Johnson, Macy, Slentz, & Waddell. © 2022 Brookes Publishing Co. All rights reserved.



Field Test of AEPS-3 in U.S.

A large blue graphic element on the left side of the slide, consisting of a main rectangular area with a darker blue tab-like shape extending from the top-left and bottom-left corners.

Content Validity

- 36 Professionals from each field (OT, PT, SLP, Psychology, Education)
- Completed survey about relatedness of items and clarity of items and criterion
- Analysis: Agreement among professional

Utility

- 11 teachers who had used the AEPS-2
- Participated in online training
- Completed AEPS-3 on 2-4 children
- Completed survey about the scoring, items, and usefulness of the items
- Analysis: Descriptive Statistics

Interrater Reliability

- ALL teachers who collected data for the field test
- Prior to collecting data on children, trained on AEPS-3
- Completed online training
- Completed Inter-rater reliability test
- Analysis: Inter-rater agreement

Concurrent Agreement

- 50 children (25 males and 25 females)
- 8 teachers
- Teachers complete training and Inter-rater Reliability test
- Teachers complete AEPS
- Within 2 weeks teacher also gives criterion measure - Battelle Developmental Inventory–Second Edition (BDI-2) (Newborg, 2005)
- Analysis – Pearson’s correlations

Scale Evaluation and Cut Scores

200 Teachers (all completed
online training and took IRR test)

Minimums of 4 children for each
teacher (n=874)

Children with disabilities (52.9%)
and without disabilities (47.1%)

Analyses: Rasch Rating Scale
Model, Cut-Score Development,
Classification Analysis

Curriculum Validity/

- 12 teachers
- 2-3 children for each teacher
- Teachers completed AEPS on each child
- Teachers completed the family report
- Teachers received trained on curriculum
- Family and teachers identified the goals for the child and identified AEPS curriculum Activities/Routines and strategies for teaching the goals
- After 3 months of implementation, focus groups were held to determine validity of curriculum
- Analysis: Qualitative

References

Toland, M., Grisham, J., Waddell, M., & Crawford, R. & Deuber, D. (2022). Scale evaluation and eligibility determination of a field test version of the Assessment, Evaluation, & Programming System 3rd edition. *Topics on Early Childhood Special Education*, 42(2), 15-161.

Grisham, J., Waddell, M., Crawford, R. & Toland, M. (2021). Psychometric properties of Assessment, Evaluation, and Programming System – 3rd Edition. *Journal of Early Intervention*, 43(1), 24-37.

Macy, M., Bricker, D., Dionne, C., Grisham-Brown, J., Johnson, J., Slentz, K., Waddell, M., Behm, M., & Shrestha, H. (2016). Content validity analysis of qualitative feedback on the revised Assessment, Evaluation, and Programming System for Infants and Children test. *Journal of Intellectual Disability - Diagnosis & Treatment*, 3(4), 1-10.

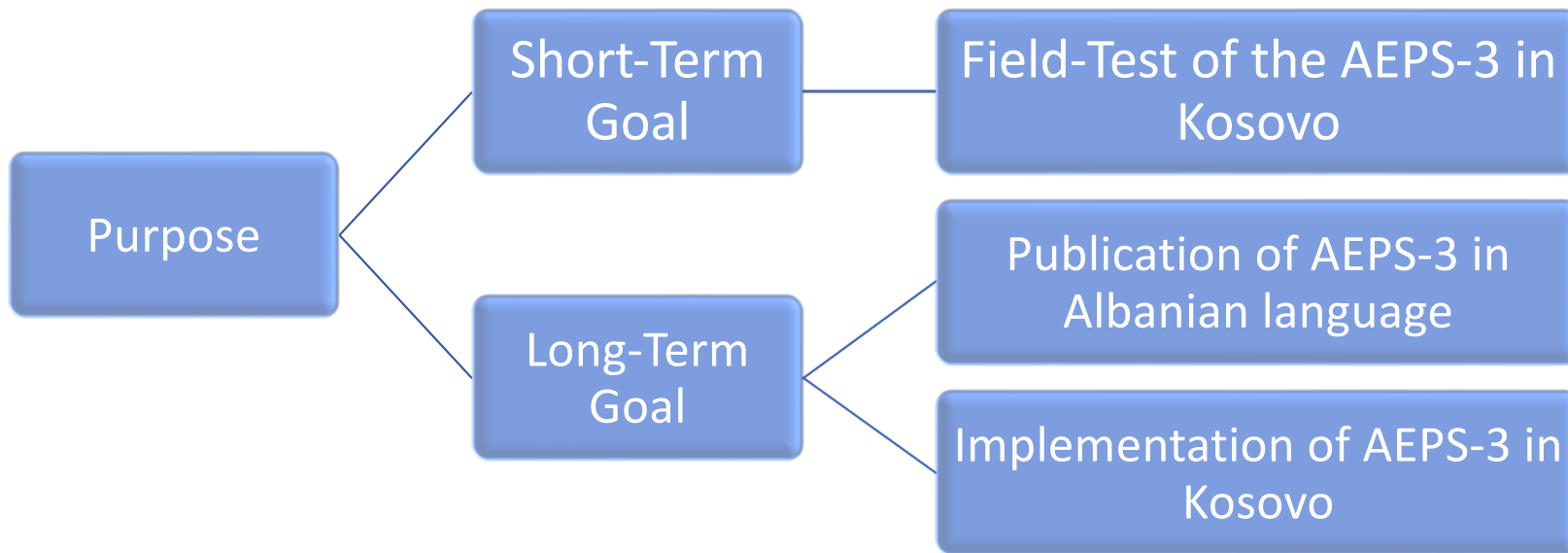
Rationale for Validating AEPS in other Countries

- Early Intervention Systems in other countries often adhere to a medical model in terms of assessment and service delivery
- Professionals in many countries are trying to promote recommended practices including authentic assessment, family centered practices and inclusion
- Assessment and curriculum systems that promote recommended practices do not exist in many parts of the world; the AEPS is one system that does so
- In order to establish the validity of the system, research is necessary in the culture and in the language of the country

Field-Test of the Assessment, Evaluation, and Programming System (AEPS) for Infants and Children-3rd Edition in Kosovo

Lema Kabashi, Ph.D.





Project Significance

- Assessment instruments, existing or new, cannot be used by early childhood professionals if they do not have defensible psychometric properties addressing validity, reliability, and utility.
- Kosovo doesn't have a criterion-referenced curriculum-based assessment that can be used with children from birth to 6 years old.
- Ultimate goal - provide Kosovo with increased sustainable resources and practices to improve early childhood education.

Field-Test

- Content validity
- Utility
- Interrater Reliability
- Concurrent Validity
- Curriculum Validity
- Psychometrics of Test and Cutoff Scores.



Monthly Meetings (Spring 2021-present)

Procedural steps, Materials, Focus groups, Presentations, & Publications

Collaboration with
Dr. Jennifer
Grisham

AEPS-3 Trainings (studies 2,3,4,5)

Funding (partial-Study 5)

Funding

CARITAS Swiss

- €14.300 euro

AAUW &
Donations

- \$4000

EMRG Board

- \$3000

Peja
Municipality

- €800



Timeline:

- Preparation: Summer 2021
- Study: October-November 2021



Key study events:

35 expert reviewers from different disciplines reviewed the AEPS-3 and completed the survey about the items to validate the content.



Results:

Changes were made for any items that professionals considered necessary; only one item was eliminated

Study 1: Content Validity

Content validity refers to the degree to which an assessment measures what is designed to measure



Timeline:

- Preparation: Summer-November 2021
- Study: December 2021-January 2022



Key study events:

16 teachers were trained in the AEPS-3

They administered the AEPS-3 with 1-2 children & completed a survey about the utility of the AEPS-3



Results:

All teachers found the AEPS-3 useful to use with children in Kosovo

Study 2: Utility

Utility refers to usefulness of an assessment for different purposes (e.g., developing individualized education programs, monitor progress, etc.).



Timeline:

December 2021 – Present



Key study events:

- 54 teachers were trained in the AEPS-3
- They observed videos of children engaged in activities and scored AEPS-3 items. Their scores were compared to a “gold standard” to determine whether they are consistent in their judgments.



Results:

All teachers scored above 80% IRR

Study 3: Interrater Reliability

Reliability refers to the stability and accuracy of assessment results.



Timeline:

February – May 2022



Key project events:

- 16 teachers were trained in the AEPS-3 curriculum.
- They will implement the AEPS-3 curriculum for 3 months to 2 children each. Families completed family report and then with teachers identified goals for the child and identified AEPS-3 curriculum activities/routines for teaching that goal.



Milestones:

The validity of the AEPS-3 curriculum was established, so teachers found that children made pro can be implemented with young children in Kosovo.

Study 4: Curriculum Validity

Curriculum validity refers to the effectiveness of the test items in teaching the curriculum



Timeline:

May 2022-Ongoing



Key project events:

38 teachers were trained in the AEPS-3 how to administer AEPS-3 to both children with and without disabilities (25 children for each age bracket at 6 months interval)



Milestones:

Cut scores at 6-month intervals will be established so it can be used for eligibility purposes for young children at risk or who have disabilities in Kosovo.

Study 5: Psychometrics of Test and Cut Scores

The psychometrics evidence and cut score refer to an assessment accurately and reliably discriminate between typically developing children and those whose development is significantly delayed or deviant and requires intervention.





Timeline:

Pause



Key study events:

- 30 teachers will be trained in the AEPS-3
- They will administer AEPS-3 to 32 children.
 - Within 2 weeks they will also administer a norm referenced test. Scores are compared.



Milestones:

The AEPS-3 concurrent validity will be established, and professionals will be able to use it with children in Kosovo.

Study 4: Concurrent Validity

Concurrent validity refers to the degree an assessment's results are similar to those generated from a norm-referenced assessment.

Publication of AEPS-3 in Albanian Language

Brookes Publishing
Company

Publication

Implementation of AEPS-3 in Kosovo

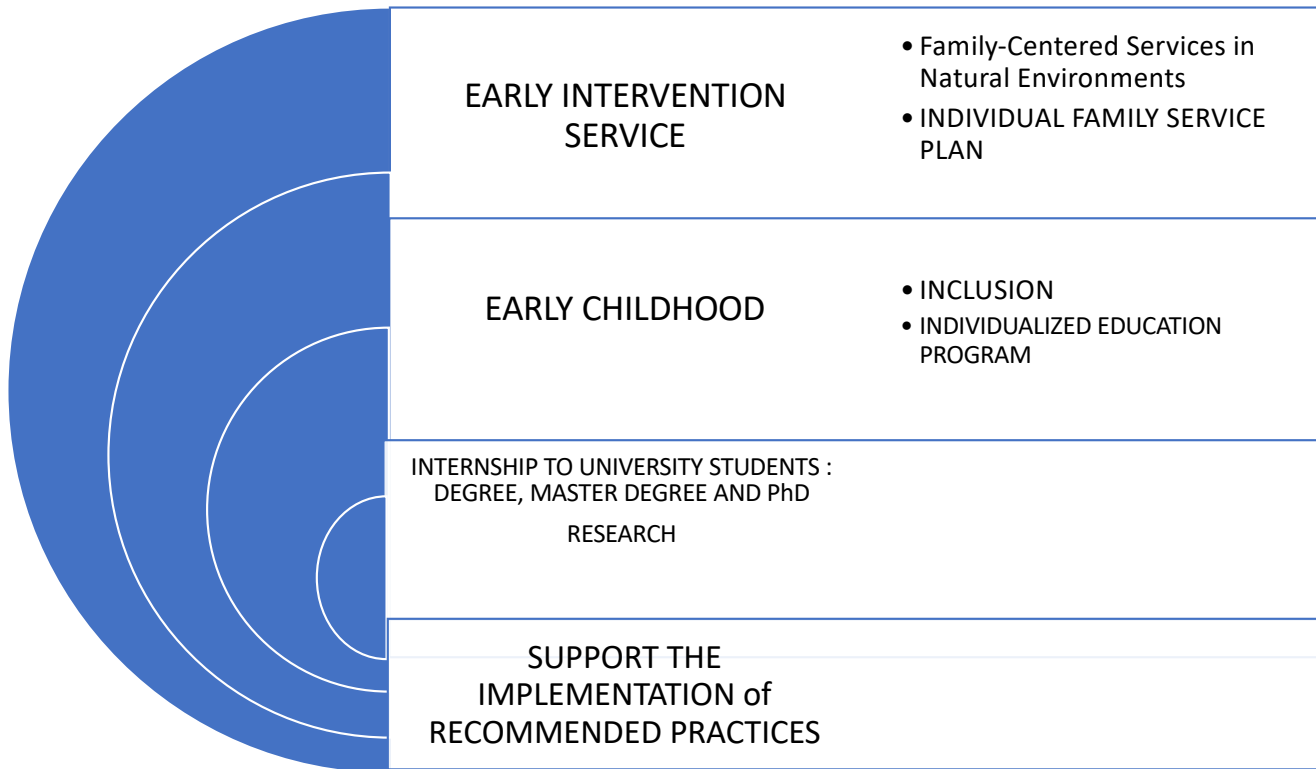


- Study of the effectiveness of the AEPS-3



ADAPTATION OF THE AEPS SCALE TO SPAIN









The Practices in Spain

- **Two or more service providers work with the child at separate times and with little communication between or among them.**
- **The professional's work directly with the child, outside the class (SEPARATE OF OTHER CHILDREN)**
- **Child-level outcomes specify just the domain and not the child's functional behavior (through observation or caregiver report) that are used in everyday activities at home or school**
- **The professionals write the objectives without the family and teachers participation.**

SERVICES BASED ON THERAPIES
FOR THE CHILDREN

PARENTS ARE INSIDE OR
OUTSIDE OF THE ROOM BUT
THEY ONLY OBSERVE THE
PROFFESIONALS WORKING WITH
THE CHILD TO LATER ON
IMITATE (OR REPEAT) THOSE
ACTIVITES AT HOME



At school, teachers only receive documents with general results. They have no support in the classroom to learn how to teach the child.



We Knew the DEC Recommended Practices...





Specialists started to support the teachers offer the children opportunities as part of everyday learning

Why the validation?

We needed to change our practices SO we needed instruments to support us to use authentic assessment to”
1) Determine children’s level of functioning, 2) Write Individual Goals for Children, 3) Plan Intervention, and 2) Monitor Performance



Utility Study

Study Objectives

- Validation of the AEPS 3rd Edition to Spain
- To gather feedback about the usefulness of the AEPS in Spain

Instrument

AEPS 3rd Edition Utility Survey

The questions address 3 areas of feedback:

- 1) Clarity and ease of scoring;
- 2) function and clarity of items and criteria
- 3) usefulness of the AEPS for its intended

Professionals responded on a Likert scale from 1 to 4 the degree of agreement (1 = strongly disagree to 4 = strongly agree) with the statements.

Method - *Participants*

The present study included a total of 16 Spanish providers

GENER:

14 female

2 male

ROLE:

2 Teachers

1 Teacher Assistant

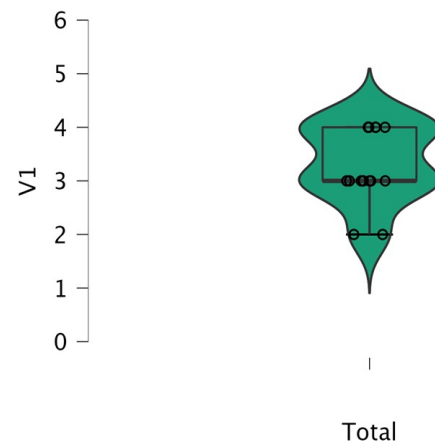
13 Early Intervention/ Early Childhood Special Education Specialist

	Media	Desviación Típica	Mínimo	Máximo	25th percentile	50th percentile	75th percentile
Years of experience EarlyIntervention	9.500	5.073	3.000	22.000	5.000	9.500	12.250
Years ofexperience EarlyChildhood	6.500	9.004	0.000	32.000	0.000	2.500	12.250

Data analysis

AEPS is easily administered in authentic environments (e.g., child's classroom, home, or in any other natural environment)

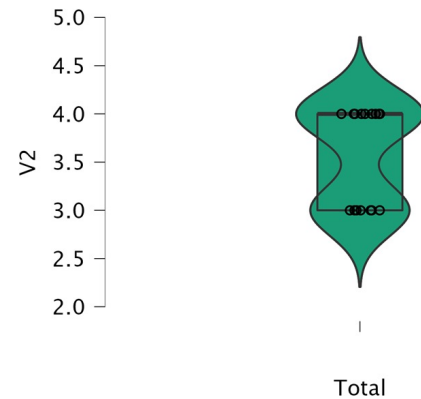
	Media	Desviación Típica	Mínimo	Máximo	25th percentile	50th percentile	75th percentile
V1	3.313	0.704	2.000	4.000	3.000	3.000	4.000



Results - continued

- AEPS items provide useful information for summarizing individual child strengths and writing present levels of development

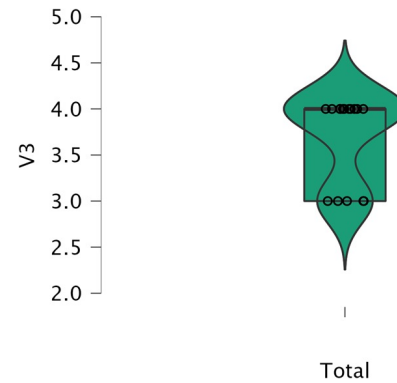
	Media	Desviación Típica	Mínimo	Máximo	25th percentile	50th percentile	75th percentile
V2	3.563	0.512	3.000	4.000	3.000	4.000	4.000



Results - continued

- AEPS items provide useful information for monitoring child progress

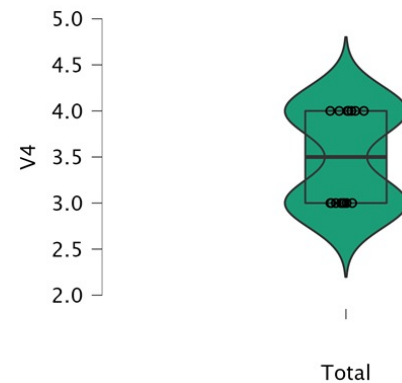
	Media	Desviación Típica	Mínimo	Máximo	25th percentile	50th percentile	75th percentile
V3	3.688	0.479	3.000	4.000	3.000	4.000	4.000



Results - continue

Requiring the use of I and A with a 1 score will provide useful information for progress monitoring

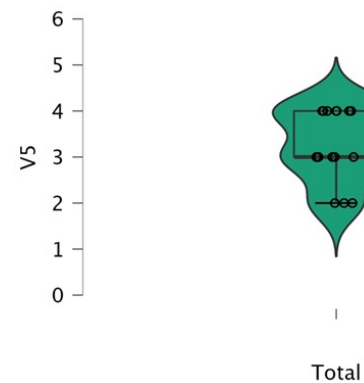
	Media	Desviación Típica	Mínimo	Máximo	25th percentile	50th percentile	75th percentile
V4	3.500	0.516	3.000	4.000	3.000	3.500	4.000



Results - continue

AEPS items provide useful information for informing outcome data reporting to state and federal agencies

	Media	Desviación Típica	Mínimo	Máximo	25th percentile	50th percentile	75th percentile
V5	3.250	0.775	2.000	4.000	3.000	3.000	4.000



Conclusions: Usefulness of AEPS for its intended purposes

We revised scoring criteria to reflect culturally relevant experiences and norms.

In Spain the culture have an oral tradition of sharing information rather than relying on written documents, so the participants said “ we need many time to completed the scale”

Examine each AEPS item and change the content to ensure our cultural appropriateness for the community. For example, when eating, the children cannot choose the food and they can't bring the food from home

LINGUISTIC CONSIDERATIONS

Consider substituting new Communication items to appropriately accommodate differences in the grammar of the language. For example, an item asks if the child uses word endings such as 's,' 'ed,' and 'ing.' These word endings are particular to the English language; the item would need to be modified to reflect the grammatical structure of a different language. Consulting with a linguist or speech language pathologist who specializes in child language acquisition of the target language is recommended.

Conclusions - continued

- CULTURAL CONSIDERATIONS. Maybe we will use others examples.
- Personal Safety
- 4. Recognizes and reports information regarding safety
- 4.2 Reports inappropriate events, actions, or language by other children or adults
- Criterion: Child informs caregiver or other trusted adult about seeing or hearing something that child believes may be inappropriate or dangerous.
- Example: Child reports stranger asked him/her to get in car to help find lost puppy, children talking about playing with matches, or seeing older brother take father's weapon from closet shelf.



Strengths

- Measures functional skills
- Observe young children during play and daily routines
- Family involvement
- Monitors performance
- Allows for adaptations and modifications

Weaknesses:

- Understand purpose? Providers say that they need many hours to do the assessment, because they do not understand that if the teacher knows the children, it will be easy
- Summarize (numerical, visual, narrative)
- Generate reports (automatic in AEPSi)
- Interpret findings

NEXT STEPS

Use the scale in many schools with different providers and collect more data

Discussion

- International research, such as this, requires collaboration at many levels including between researchers and with other entities (e.g., universities, ministry of education, NGOs)
- Although authors attempted to develop a “universally designed” assessment, the current research shows that it is impossible to use an assessment developed in the U.S. in other countries without adaptations (aside from just translation)
- The potential for AEPS-3 to support the development of early intervention systems or promote the use of recommended practices within existing systems in other countries is promising

QUESTIONS?



THANK YOU!

