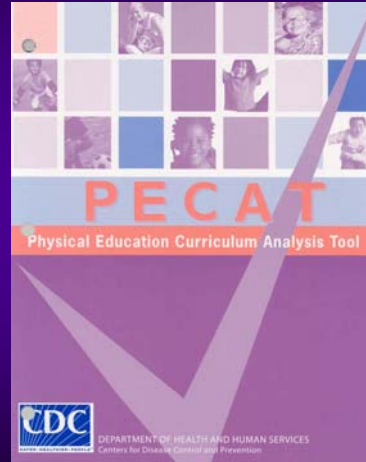


Slide 1: *PECAT* – Physical Education Curriculum Analysis Tool – *Using the PECAT*

Note to Trainer: Introduce yourself and the presentation

Using the *PECAT*

- Purpose of the *PECAT*
- Organization of the *PECAT*
- Examination and use of the *PECAT*



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Slide 2: Using the *PECAT*

- Purpose of the *PECAT*
- Organization of the *PECAT*
- Examination and use of the *PECAT*

Today I am going to discuss the purpose and organization of the *Physical Education Curriculum Analysis Tool* – the *PECAT*, and then you will have an opportunity to practice using it. The *PECAT* was developed by the Centers for Disease Control and Prevention's Division of Adolescent and School Health, to help individuals and groups analyze written physical education curriculum.

Objectives of the Presentation

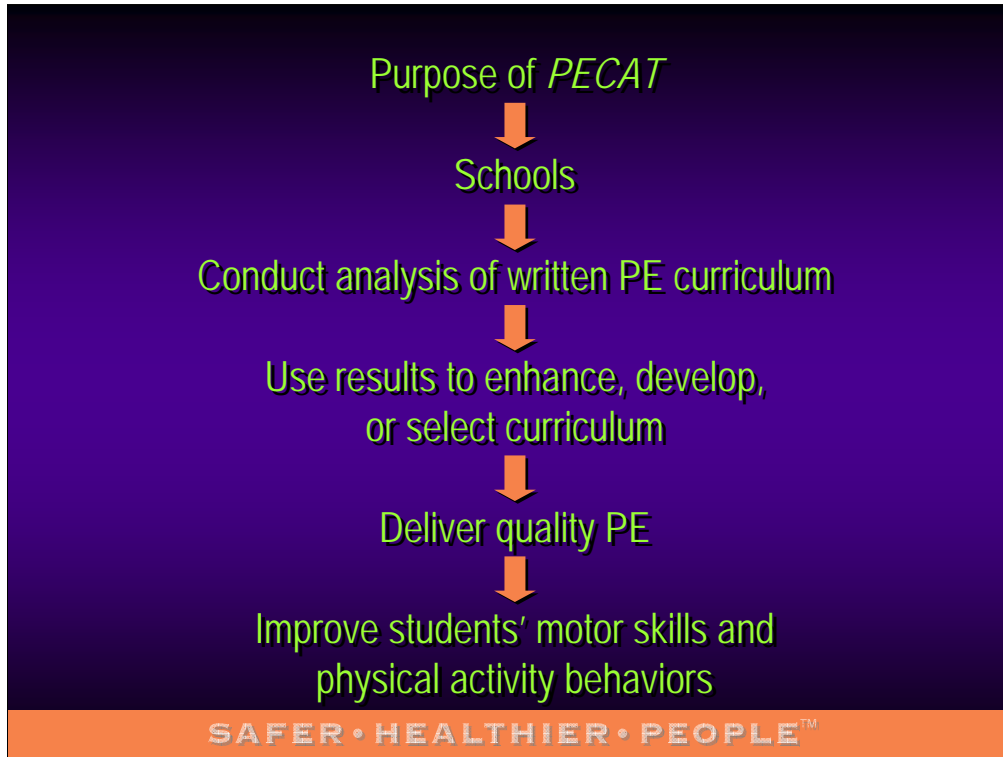
- The participants will be able to:
 - Describe how the *PECAT* can be used to improve physical education and thereby influence students' motor skills and physical activity behaviors.
 - Use the components of the *PECAT*.
 - Discuss how to incorporate the *PECAT* into your professional practice.

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Slide 3: Objectives of the Presentation

By the end of the presentation, you will be able to

- (1) Describe how the *PECAT* can be used to improve physical education and thereby influence students' motor skills and physical activity behaviors.
- (2) Use the various components of the *PECAT*, and
- (3) Discuss how to incorporate the *PECAT* into your professional practice.



Slide 4: The purpose of the *PECAT*

The purpose of the *PECAT* is to help schools conduct a clear, complete, and consistent analysis of written physical education curricula. Then, the results can help schools select a published curriculum, develop their own curricula, or enhance existing curricula to support the delivery of **quality physical education** in schools. In turn, this will improve the ability of schools to positively influence motor skills and physical activity behaviors among school age youth.

Rationale for the *PECAT*

1. The need to increase student participation in physical activity.
2. The school's role in improving physical activity habits and health of youth.
3. Physical education curriculum is the primary means through which schools deliver physical education.¹
4. No national tool to analyze physical education curriculum.

Source: Melograno VJ. *Designing the physical education curriculum*. 3rd ed. Champaign, IL: Human Kinetics, 1996.

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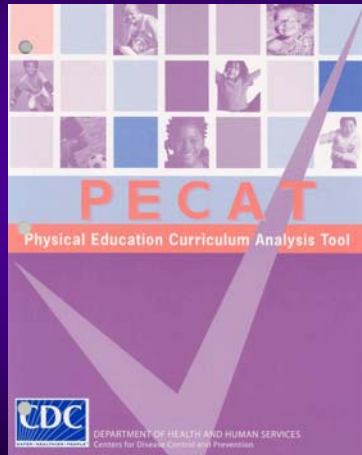
Slide 5: Rationale for the *PECAT*

There are at least four fundamental reasons for the development of the *PECAT* :

- (1) Students need to be more physically active.
- (2) Schools can (and should) help improve the physical activity habits and health of young people by providing quality instruction, programs, and services that promote enjoyable, lifelong physical activity.
- (3) A high quality physical education program is the cornerstone of a school's physical activity programming, and a well-written physical education curriculum is the foundation of a physical education program.¹
- (4) Although many documents and tools discuss and address high quality physical education, there was no pre-existing tool that allowed users to thoroughly analyze a written curriculum.

1. Melograno VJ. Designing the physical education curriculum. 3rd ed. Champaign, IL: Human Kinetics, 1996.

Organization of the *PECAT*



Front Material includes:

- Introduction
- Instructions

Slide 6: Organization of the *PECAT*

The *PECAT* is organized into 5 sections: The Front Material includes the introduction and instructions for completing the *PECAT*. (see pages 1 – 9)

Organization of the *PECAT*

Part 1: Preliminary Curriculum Considerations

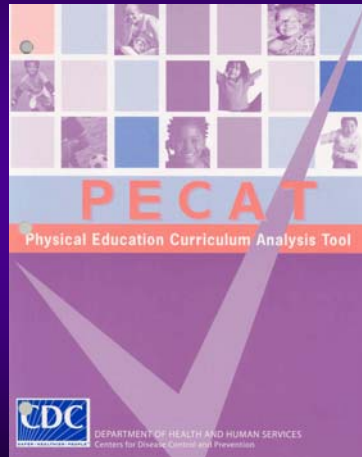
- Physical Education Curriculum Description
- Accuracy Analysis
- Acceptability Analysis
- Feasibility Analysis, and
- Affordability Analysis

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Slide 7: Organization of the *PECAT*

Part One includes the Physical Education Curriculum Description, which requests basic information about the curriculum (pages 13 – 15); and the Preliminary Curriculum Analyses (Accuracy, Acceptability, Feasibility, and Affordability Analyses), which feature questions to consider about the curriculum prior to analyzing content and student assessment. (pages 17 – 31)

Organization of the *PECAT*



Part Two includes:

- Content Analysis
- Student Assessment Analysis

Slide 8: Organization of the *PECAT*

Part Two includes the Content and Student Assessment Analyses, which feature systems for rating a curriculum on how well it addresses each of the six national standards for physical education.

- The content and student assessment analyses are divided into four subsections that correspond to the grade-level ranges used in the national standards for physical education: K – 2, 3 – 5, 6 – 8, and 9 – 12. (pages 35 – 171).
- Each subsection begins with a list of what students are expected to achieve by the end of the identified grade-level range related to each of the national standards.
- These student expectations, developed by the National Association for Sport and Physical Education (NASPE), build the framework of the curriculum analysis process, as they identify what physically educated students are expected to know and be able to do by the end of each grade-level range.
- The Content Analyses focus on what is contained within the curriculum across the grade levels, based upon the national standards. The Student Assessment Analyses focus on the existence of age-appropriate protocols for student assessment.

Organization of the *PECAT*

- **Part Three** includes:
 - Curriculum Improvement Plan
- **Appendices** include:
 - National Standards
 - Glossary
 - Resources
 - Example of a completed scoring sheet.

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Slide 9: Organization of the *PECAT*

Part Three includes the Curriculum Improvement Plan, which is a guide for users to examine *PECAT* results and determine a timeline for addressing the needed changes. (page 187)

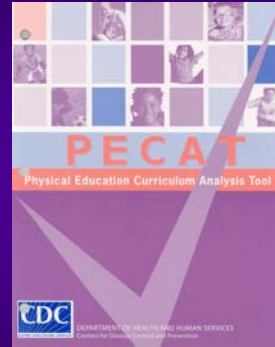
And, finally the Appendices include the National Standards, Glossary, Resources, and an example of a Completed Scoring Card. (pages 191-204)



Slide 10: Now, it's YOUR turn to look at the *PECAT!*

Develop an Understanding of:

- Accuracy Analysis
- Acceptability Analysis
- Feasibility Analysis
- Affordability Analysis
- Content Analysis
- Student Assessment Analysis



Share your understanding with others!

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Slide 11: Develop an Understanding

Next, you will take a closer look at the components of the *PECAT* to develop an understanding of:

- Accuracy Analysis,
- Acceptability Analysis,
- Feasibility Analysis,
- Affordability Analysis,
- Content Analysis, and
- Student Assessment Analysis.

Then, you'll share your understanding with your group members.

Next Steps for Group Activity

1. Form groups
2. Choose one analysis each:
 - Accuracy
 - Acceptability
 - Feasibility
 - Affordability
 - Content
 - Student Assessment
3. Read component

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Slide 12: Next Steps for Group Activity

First, form a small group of 6 people.

Second - Each group member will choose from one of the following components to read:

- Accuracy Analysis (pages 17 – 19)
- Acceptability Analysis (pages 21 – 24)
- Feasibility Analysis (pages 25 – 26)
- Affordability Analysis (pages 27 – 31)

Note to Trainer: Each group should choose one grade level for the Content Analysis and Student Assessment Analysis.

•Content Analysis (for grades K-2, see pages 35 – 49; for grades 3 – 5, see pages 69 – 83; for grades 6 – 8, see pages 105 - 119; for grades 9 – 12, see pages 141 - 153)

•Student Assessment Analysis (for grades K-2, see pages 51– 61; for grades 3 – 5, see pages 87 – 97; for grades 6 – 8, see pages 123 - 133; for grades 9 – 12, see pages 155 - 167))

Third - Each member will read or review the chosen section.

Next Steps for Group Activity

4. Answer “guiding questions” about each of the components/section:
 - What is the **purpose**? What does it provide?
 - Who **completes** it?
 - What **examples** need to be considered? (For accuracy and acceptability only)
 - What **forms** are included?
 - How **helpful** is this to you?
 - Is it **applicable** to your local situation?

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Slide 13: Next Steps for Group Activity

Fourth – Then, for each section, the group member will answer the questions on the handout titled “Guiding Questions.” You have 10 minutes to do this.

- What is the purpose of this component? What does it provide?
- Who should complete this component?
- For accuracy and acceptability component only: What are some examples of issues or concerns that might be considered in this section?
- What forms are included in this component?
- How might this component be helpful to you in understanding and reviewing curriculum?
- Is it applicable to your local situation?

Next Steps for Group Activity

5. Share your answers to the "guiding questions" with your group
 - You have 10 minutes!



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Slide 14: Next Steps for Group Activity

Fifth – when you have completed answering the questions, share your understanding of the component with your group members. You have 10 minutes to do this. *Note to trainer:* depending on the group process, it may take as long as 15 minutes.

Review and Clarification

- Let's review and clarify the sections/components together!

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Slide 15: Review and Clarification

Note to trainer: Use the following slides, if necessary, to clarify any misunderstanding the committee members may have about the analyses. OR, use these notes (slides 16 to 29) to clarify when group members share their sections, then move onto slide 30.

Accuracy Analysis

Accuracy Analysis Chart: Insert information as specified on the previous page, items A - E (if none, go to next page)

A Page location in curriculum	B Brief description of inaccurate, misword, or out current information	C Difficulty level of correcting inaccuracies	D Brief description of what needs to be done to correct the inaccuracies	E Is correction costly in terms of money or time
		<input type="checkbox"/> = Very difficult <input type="checkbox"/> = Moderately difficult <input type="checkbox"/> = Moderately easy <input type="checkbox"/> = Very easy		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> = Very difficult <input type="checkbox"/> = Moderately difficult <input type="checkbox"/> = Moderately easy <input type="checkbox"/> = Very easy		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> = Very difficult <input type="checkbox"/> = Moderately difficult <input type="checkbox"/> = Moderately easy <input type="checkbox"/> = Very easy		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> = Very difficult <input type="checkbox"/> = Moderately difficult <input type="checkbox"/> = Moderately easy <input type="checkbox"/> = Very easy		<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> = Very difficult <input type="checkbox"/> = Moderately difficult <input type="checkbox"/> = Moderately easy <input type="checkbox"/> = Very easy		<input type="checkbox"/> Yes <input type="checkbox"/> No

Name of Curriculum: _____

Name of Reviewer(s) _____ Credentials (degree, certification) _____ Relationship with school district or building _____

Accuracy analysis score: Using the information from the accuracy analysis chart, score the curriculum based on its accuracy and the extent to which the correction of any errors can be reasonably corrected. (Write the score in accuracy analysis score box below.)

4 = No corrections are necessary.
 3 = Only a few minor inaccuracies are evident, and all are easy to correct.
 2 = Many minor inaccuracies are evident, but all errors are easy to correct.
 1 = Major inaccuracies are evident, and one error is somewhat difficult or costly to correct.
 0 = Major inaccuracies are evident, and more than one will be difficult or costly to correct.

Accuracy Analysis Score

Slide 16: Accuracy Analysis

The Accuracy Analysis form can be found on pages 17 – 19 of the *PECAT*. (images of pages from the *PECAT*)

Accuracy Analysis

- Assess accuracy of health, medical, and scientific information in the written physical education curriculum.
- Identify inaccurate, unsound, exaggerated, distorted, outdated information, as well as the degree of difficulty.
- Determine what needs to be done to correct the problems.

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Slide 17: Accuracy Analysis

Accuracy Analysis is used to assess the *accuracy of the health, medical, and scientific information in the written physical education curriculum.*

You will:

- Identify and describe inaccurate, unsound, exaggerated, distorted or out-of-date information; you will also identify the degree of difficulty associated with correcting the problem.
- Identify what needs to be done to correct the problem, and
- Determine if the correction is costly in terms of time or money.

And, you will determine:

- Are physical and skill activities within the written curriculum represented accurately in charts, graphs, and written text?
- Are the sources of the physical education curriculum content made clear?
- Is the curriculum based on appropriate data and reliable sources of physical education information?
- Are data, information, and sources of information up-to-date?
- Does the curriculum use accurate and appropriate terminology?
- Are information, examples, scenarios, etc. relevant to the students' lives?

Accuracy Analysis

- For **Accuracy Analysis**, assemble individuals with expertise and experience in:
 - Science of physical education and/or kinesiology
 - Science of youth physical activity

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Slide 18: Accuracy Analysis

In order to best complete each section, you will want to include individuals with specific types of expertise and experience on your *PECAT* committee. For the Accuracy Analysis, you'll want someone with scientific expertise in Physical Education and/or Kinesiology, and the science of youth physical activity.

Acceptability Analysis

Acceptability Analysis Chart: Insert information as specified on the previous page, items A-E (if none, go to next page)

A Page location in curriculum	B Brief description of biased, stereotypical, incompatible, or unacceptable information or depiction	C Degree to which information is unacceptable	D Brief description of what needs to be done to correct unacceptable information	E Degree of difficulty to correct or eliminate this information and retain curriculum quality
		<input type="checkbox"/> = Serious <input type="checkbox"/> = Minor		<input type="checkbox"/> = Very difficult <input type="checkbox"/> = Moderately difficult <input type="checkbox"/> = Moderately easy <input type="checkbox"/> = Very easy
		<input type="checkbox"/> = Serious <input type="checkbox"/> = Minor		<input type="checkbox"/> = Very difficult <input type="checkbox"/> = Moderately difficult <input type="checkbox"/> = Moderately easy <input type="checkbox"/> = V
		<input type="checkbox"/> = Serious <input type="checkbox"/> = Minor		<input type="checkbox"/> = V <input type="checkbox"/> = b <input type="checkbox"/> = h <input type="checkbox"/> = v
		<input type="checkbox"/> = Serious <input type="checkbox"/> = Minor		<input type="checkbox"/> = V <input type="checkbox"/> = b <input type="checkbox"/> = h <input type="checkbox"/> = v
		<input type="checkbox"/> = Serious <input type="checkbox"/> = Minor		<input type="checkbox"/> = V <input type="checkbox"/> = b <input type="checkbox"/> = h <input type="checkbox"/> = v
		<input type="checkbox"/> = Serious <input type="checkbox"/> = Minor		<input type="checkbox"/> = V <input type="checkbox"/> = b <input type="checkbox"/> = h <input type="checkbox"/> = v

Name of Curriculum: _____

Name of Reviewer(s) _____ Credentials (degree, certification) _____ Relationship with school district or building _____

Acceptability analysis score: Using the information from the acceptability analysis chart, score the curriculum based on its overall acceptability and the extent to which the correction of any errors can be reasonably completed.

4 = No corrections are necessary.
 3 = Only a few minor inaccuracies are evident, and all are easy to correct.
 2 = Many minor inaccuracies are evident, but all errors are easy to correct.
 1 = Major inaccuracies are evident, and one error is somewhat difficult or costly to correct.
 0 = Major inaccuracies are evident, and more than one will be difficult or costly to correct.

Acceptability Analysis Score

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Slide 19: Acceptability Analysis

Acceptability Analysis. The Acceptability Analysis form can be found on pages 21 – 24 of the *PECAT*. (images of pages from the *PECAT*)

Acceptability Analysis

- Determine if anything in curriculum is:
 - Incompatible with school norms;
 - Promotes biased or stereotypical perceptions; or
 - Is inconsistent with state or school district policies or codes.

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Slide 20: Acceptability Analysis

You will review the curriculum to determine if there is anything in it (e.g., text, pictures) that might:

- Be incompatible with school norms;
- Promote biased or stereotypical perceptions of individuals or groups on the basis of personal characteristics such as race, ethnicity, gender, religion, culture, body size, physical abilities, or sexual orientation; or
- Be inconsistent with state statutes, state or district policy, codes, and/or standards.

Acceptability Analysis

- For **Acceptability Analysis**, assemble individuals with expertise and experience in:
 - School policy
 - State guidelines and mandates for physical education
 - State and local PE standards
 - Physical education needs of students

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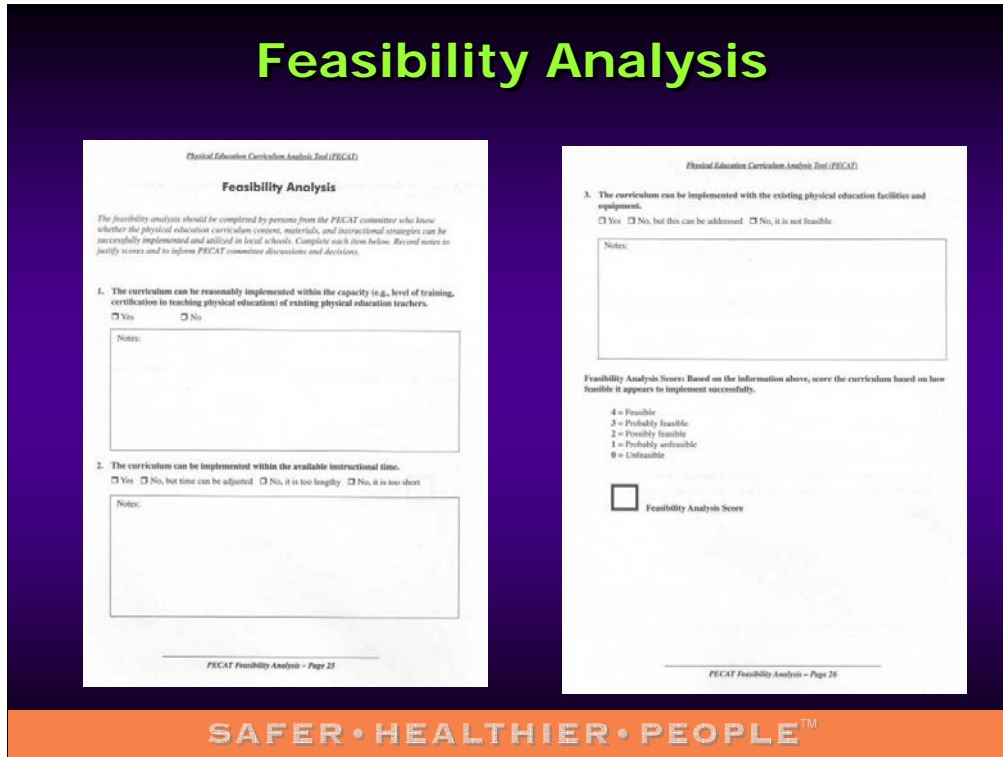
Slide 21: Acceptability Analysis

For the Acceptability Analysis, you will want to assemble individuals with expertise and experience in:

- State guidelines for PE, including local policy guidelines for PE-policy (if they exist),
- State and/or local PE frameworks and standards that guide physical education (if they exist),
- School expectations for physical education material, and
- The physical education needs of students.

In addition, you will want to include contact information for the person who is in charge of policy information for the school system.

Feasibility Analysis



Slide 22: Feasibility Analysis

The Feasibility Analysis form can be found on pages 25 – 26 of the *PECAT*. (images of pages from the *PECAT*)

Feasibility Analysis

- Can the curriculum be implemented:
 - By physical education teachers?
 - Within available instructional time?
 - With existing PE facilities and equipment?

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Slide 23: Feasibility Analysis

For this analysis, select committee members who know if the physical education curriculum content, materials, and instructional strategies can be successfully implemented and utilized in the classroom. Questions you will consider include:

- Can it be reasonably implemented by physical education teachers?
- Can it be implemented within the available instructional time?
- Can it be implemented with the existing physical education facilities and equipment?

Feasibility Analysis

- For **Feasibility Analysis**, assemble individuals with expertise and experience in:
 - School and/or district-level PE coordination
 - Curriculum and instruction
 - School administration
 - Teaching of physical education

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Slide 24: Feasibility Analysis

For the Feasibility Analysis, you will need individuals with expertise and experience in:

- School and/or district-level Physical Education coordination/supervision (if one exists),
- Curriculum and instruction,
- School administration, and
- Teaching of physical education.

You may also want to include master teachers and school principals from each grade level.

Affordability Analysis

- Identify needed changes and costs, to purchase or revise curriculum, in:

- Staffing
- Facilities
- Schedule

District Education Curriculum Analysis Tool (PECAT)

Affordability Analysis

The affordability analysis should be completed by people who are knowledgeable about curriculum development, purchasing, implementation, and revision costs; costs in changing school operating procedures; and resources available for covering these costs. Complete each item below. Record notes to justify scores and inform PECAT committee discussions and decisions.

1. What is the initial cost of curriculum materials?

Item	Unit Cost	Number of Units Needed	Total Initial Cost (Unit cost times number of units needed)
Core curriculum (breakdown of separate grade-specific or content-specific materials might be necessary)	\$		\$
Necessary instructional materials not included as part of core curriculum (may include cost of equipment, videos, CDs, master transparencies, etc.)	\$		\$
Required consumable student materials	\$		\$
Other (e.g., parent materials, take-home items)	\$		\$
Total Minimum Curriculum Purchase Costs	\$		\$
Optional supplementary materials (including suggested, but not required, consumable materials)	\$		\$
Total Initial Curriculum Costs	\$		\$

Notes and comments:

PECAT/Affordability Analysis - Page 27

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Slide 25: Affordability Analysis

For this analysis, you will score how affordable the curriculum appears to be (pages 27 – 31 of the *PECAT*). This analysis look at both costs and resources available to balance those costs.

Costs to consider include:

- Costs of changing school operating procedures;
- Costs of sustaining curricular materials annually;
- Costs associated with changes in staffing, facilities, and/or schedule so that lessons in the curriculum can be implemented as written;
- Costs of revising the curriculum to ensure that the content is accurate and acceptable.

If you are reviewing your district-developed curriculum, some of the pieces of the affordability analysis may not be applicable to your local setting, but many of them are. For example, you may need to consider the costs to implement the curriculum.

Affordability Analysis

- For **Affordability Analysis**, assemble individuals with expertise and experience in:
 - School finances
 - Curriculum and instruction
 - School administration
 - Teaching of physical education

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Slide 26: Affordability Analysis

The Affordability Analysis should be completed by persons who are knowledgeable about curriculum purchasing, implementation, and curriculum revision costs. You will want to include individuals with expertise and experience in:

- School finances (for example, the school finance officer or someone who can provide cost of staffing, and current and projected budget allocations),
- Curriculum and instruction,
- Physical education curriculum (a specialist or other supervisor in charge),
- School administration, and
- Teaching of physical education.

You may also want to include master teachers and school principals from each grade level.

Content Analysis

- How well does the curriculum:
 - Cover what students should know?
 - Cover what students should be able to do?
 - Align with the National Physical Education Standards?

Physical Education Curriculum Analysis Tool (PECAT)

Content Analysis for Standard 1

Grades K-2

The content analysis for standard 1, grades K-2, is completed by placing a check in the box corresponding to "2", "1", or "0", after each question. Once this is complete, add the numbers down and then scores and place in the content analysis score box for standard 1.

Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

	Fully 2	Partially 1	Not 0
Does the curriculum include			
1. Specific lessons on fundamental movement skills, including locomotor (e.g., walk, skip, hop, nonlocomotor (e.g., bend, twist, crouch) and manipulative (e.g., striking an object) for each skill?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Specific introductory lessons on motor skills such as rolling, transfer of body weight to one leg, or rhythmic movement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Specific lessons on the combination of movement and motor skills, such as dribbling a ball while walking or creating movement patterns using different speeds, directions, and skills?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. At least one initial and one follow-up learning experience (e.g., introduction of basic tennis skills and then tossing the ball back and forth with partners) for each skill?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Specific instructions that clearly indicate the appropriate grade level at which each motor skill and movement pattern should be introduced and subsequently taught?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Content Analysis Score for Standard 1 (Grades K-2) + + = SCORE

(Add the total numbers to determine the total score and place score on scorecard, page 63.)

Key for Scoring:
2 = Fully: The curriculum sufficiently addresses each and every element of the question. 1 = Partially: The curriculum partially addresses the question. 0 = Not: The curriculum does not address the question.

Grades K-2 - Page 37

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Slide 27: Content Analysis

The *PECAT* helps users analyze written physical education curriculum, on the basis of the **content it includes and the student skills it assesses**.

The Content Analysis determines how well the curriculum covers the components of what students should know and be able to do, and how well it aligns with the national PE standards. (In the *PECAT*, for grade K-2 see pages 35 – 49; for grades 3 – 5 see pages 69 – 83; for grades 6 – 8 see pages 105 - 119; and for grades 9 – 12 see pages 141 - 153).

Student Assessment Analysis

Physical Education Curriculum Analysis Tool (PECAT)

Student Assessment Analysis for Standard 1

Grades K-2

The student assessment analysis for standard 1, grades K-2, is completed by placing a check in the box corresponding to "2", "1", or "0" after each question. Once this is complete, add the numbers down and then sum and place in the student assessment analysis score box for standard 1.

Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities

	Fully 2	Partially 1	No* 0
Does the curriculum include			
1. Protocols for assessing fundamental movement skills, including locomotor (e.g., walk, skip, hop), nonlocomotor (e.g., bend, twist, rock), and manipulative (e.g., striking an object) skills?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Protocols for assessing specialized movement skills such as rolling, standing of body weight on one leg, or rhythmic movements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Protocols for assessing the combination of movement and motor skills such as dribbling a ball while walking or creating movement patterns using different speeds, directions, and skills?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Protocols for assessing the application of a variety of locomotor, nonlocomotor, manipulative, combination, and specialized skills, such as having a student demonstrate how to adapt movement skills to changing conditions (e.g., rolling a ball to a moving partner or moving to music)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Specific instructions that clearly indicate the appropriate grade level at which each protocol for student assessment should be conducted for the above components?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student Assessment Score for Standard 1 (Grades K-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Add the numbers across for the total score and place score on scorecard, page 65.)

SCORE:

* Key for Rating
2 = Fully includes 1 or more specific protocols for assessment and multiple levels of complexity; 1 = Partially; Does include 1 or more protocols but not multiple levels of complexity; 0 = Not Done (not include any protocol for assessing student performance.)

Grades K-2 - Page 51

- How well does the curriculum:
 - Integrate standards-based assessment protocols?
 - Provide age-appropriate student assessment protocols for each standard?

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Slide 28: Student Assessment Analysis

The Student Assessment Analysis determines how well the curriculum integrates standards-based assessment protocols for the knowledge and skills expected from students, and whether there are student assessment protocols for each standard (to guide the evaluation or assessment of student skill and ability for performance and of demonstration). (In the PECAT, for grades K-2 see pages 51– 61; for grades 3 – 5 see pages 87 – 97; for grades 6 – 8 see pages 123 - 133; and for grades 9 – 12 see pages 155 – 167.)

Each analysis contains several critical components taken directly from the national physical education standards. For example, standard 1 (“demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities”) features four components: fundamental movement skills, specialized movement skills, combination of movement skills, and application of skills.

Content and Student Assessment Analyses

- For **Content Analysis and Student Assessment Analysis**, assemble individuals with expertise and experience in:
 - Science of physical education and/or kinesiology
 - Science of youth physical activity
 - Curriculum and instruction
 - Teaching of physical education
 - Protocols for physical education assessment (e.g., state/district requirements, fitness testing, etc.)

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Slide 29: Content and Student Assessment Analyses

For the Content Analysis and Student Assessment Analysis, you will need these **materials**:

- National [\[1\]](#) and state PE standards,
- Physical Education assessments used by teachers within the school system, and
- Any established protocols/policies that address assessment in physical education, such as physical fitness testing, some state/district requirements, screening tools, pre/post unit testing, etc.

For the Content Analysis and Student Assessment Analysis, you will need to **assemble individuals** with expertise and experience in:

- Science of physical education and/or kinesiology,
- Science of youth physical activity,
- Curriculum and Instruction,
- Teaching of physical education, and
- Protocols for physical education assessment (e.g., state/district requirements, fitness testing, etc.).

[\[1\]](#) Note: the national standards can be found in the *PECAT*, Appendix 2, page 193.

Completing the *PECAT*



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Slide 30: Completing the *PECAT*

Now that you understand the components of the *PECAT*, what are the next steps in completing the *PECAT*?

Note to trainer: The Committee may have already selected the *PECAT* coordinator. The coordinator is responsible for assisting the committee with identifying roles and responsibilities of each member; leading the committee through a clear timeline; and leading the committee through the process of completing the *PECAT*. (image of people in a conference room)

Preparation for Completing the *PECAT*

Assemble the following items:

- Curriculum(a) to be reviewed
- Copies of the *PECAT*
- Copies of state or local PE standards
- Contact information of school or district-level physical education curriculum administrator or supervisor

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Slide 31: Preparation for Completing the *PECAT*

Here are the general items that the *PECAT* Coordinator will need to assemble before beginning the *PECAT* process:

- Copies of each of the curriculum to be reviewed,
- Copy of the *PECAT* for each committee member,
- Copies of state or local standards, and
- Contact information of school or district-level physical education curriculum administrator or supervisor.

Steps to Completing the *PECAT*

- **Step 1:** Identify the roles and responsibilities of each committee member.

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Slide 32: Steps to Completing the *PECAT*

Step 1: Now, the roles and responsibilities of each committee member will need to be identified.

- Are there any other people you might include on your committee?

Note to Trainer: You may want to offer suggestions for types of individuals who may serve on the *PECAT* committee. In addition to individuals with expertise and experience in education, school finance, physical education and kinesiology, and school administration, **interested parents or guardians and community leaders** can be supportive and provide additional perspectives associated with physical education curriculum planning and implementation.

Steps to Completing the *PECAT*

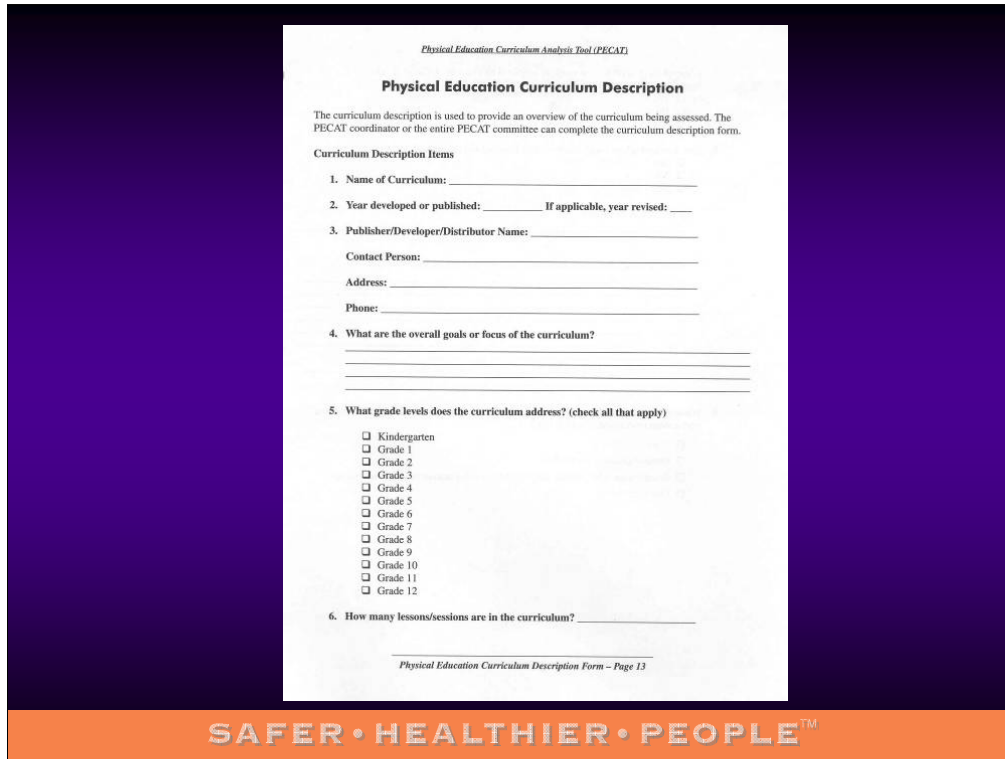
- **Step 2:** Review curriculum materials, the *PECAT*, and any additional state or local standards.
 - Complete Curriculum Description Form together, and
 - Determine organization of the committee for completion of other forms.

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Slide 33: Steps to Completing the *PECAT*

Step 2. Review curriculum materials, the *PECAT*, and any additional state or local standards.

- Each member of the committee should receive a copy of the curriculum being reviewed as well as a copy of the *PECAT*.
 - This allows members to understand the framework of the curriculum as well as its contents.
- The *PECAT* will allow you to analyze any additional standards; how to do so will be discussed later.
- The committee should begin by completing the Curriculum Description Form (pages 13 – 15) together, then:
 - Decide who will be responsible for completing the preliminary, content, and student assessment analyses for each grade level range.
 - The entire *PECAT* committee might work together on all grade-level ranges or subcommittees could be formed to complete specific components of the *PECAT* (e.g., Preliminary Curriculum Considerations; Content Analysis; Student Assessment Analysis) or specific grade levels.



Slide 34: Physical Education Curriculum Description

The Physical Education Curriculum Description form can be found in the *PECAT* on pages 13-15.

Steps to Completing the *PECAT*

- **Step 3:** Complete the Accuracy, Acceptability, Feasibility, and Affordability Analyses.
 - Complete the Preliminary Curriculum Considerations.
 - Complete before proceeding to the Content and Student Assessment Analyses.
 - Make choices early.

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Slide 35: Steps to Completing the *PECAT*

Step 3: Complete the Accuracy, Acceptability, Feasibility, and Affordability Analyses (pages 17 – 31 of the *PECAT*).

- The preliminary analyses allow you to determine the accuracy of the curriculum, how well the curriculum is aligned with community norms, and how feasible and affordable it will be for the school district and physical education teachers to implement the curriculum.
- Consider the questions for each analysis, consult with knowledgeable individuals, complete the scoring charts, and place the score in the score box on the last page of each analysis.
- For a locally-developed curriculum, complete each of these analyses to determine any initial considerations that should be addressed before proceeding to the Content and Student Assessment Analyses.
 - For example, the Affordability Analysis may enable the *PECAT* committee to identify costs that were undocumented previously. These considerations will be important when the curriculum improvement plan is established.
- For commercially-developed curricula, if a curriculum has low scores on any of these preliminary analyses, you should not proceed with the Content and Student Assessment Analyses.
- A commercially-developed curriculum that is not rated as accurate, acceptable, feasible, and affordable is not an appropriate choice.

Steps to Completing the *PECAT*

- **Step 4:** Complete the Content and Student Assessment Analyses
 - Perform Content and Student Assessment Analyses
 - Consider importance of sequential written curriculum
 - Identify the content, skills, and activities that should be covered yearly, and throughout K-12.
 - Students need to be taught increasingly advanced skills and concepts.

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Slide 36: Steps to Completing the *PECAT*

Step 4: Complete the Content and Student Assessment Analyses (pages 35 – 171 of the *PECAT*).

- Perform Content and Student Assessment Analyses.
- Consider the importance of sequential written curriculum.
 - The sequence identifies, defines, and describes the skills and activities that should be covered on a yearly basis, as well as the sequence of instruction throughout students' educational K – 12 experience.
 - All questions, across the grade levels, within the *PECAT* are based on the premise that students need to be taught increasingly advanced forms of physical activity skills and concepts as they progress through their educational experience.

Note to Trainer: Each of the Preliminary Curriculum Consideration Analyses should have been scored during the process of completing each one. These scores do not contribute to the Overall *PECAT* Scorecard.

Sequence Considerations

- Standards built on previous grade level.
- Content Analysis examines sequence from one grade level to the next.
- Student Assessment Analysis determines if age-appropriate assessment protocols exist across the grade levels.

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Slide 37: Sequence Considerations

The questions in the Content Analysis and Student Assessment Analysis address the sequence of the curriculum, or how each standard builds on the previous grade level.

- For example, Content Analysis question 1 for standard 1, grades K-2 asks how well a written curriculum includes specific lessons on fundamental movement skills.
- Content Analysis for standard 1, grades 3-5 asks whether the curriculum includes specific lessons on *mature* forms of fundamental movement skills.

Scoring Criteria for Content Analysis

- **2** = Fully addresses each element of the question
- **1** = Partially addresses the question
- **0** = Does not address the question

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Slide 38: Scoring Criteria for Content Analysis

The scoring criteria for calculating scores for the Content Analysis are:

- A score of 2 or “Fully”, means that the curriculum sufficiently addresses each and every element of the question;
- A score of 1 or “Partially”, means that the curriculum partially addresses the question; and
- A score of 0 or “No”, means that the curriculum does not address the question. (see example for grades K-2 on page 37 of the *PECAT*)

Scoring for Student Assessment Analysis

- **2** = Fully: one or more specific protocols + multiple levels of student competency
- **1** = Partially: one or more protocols but not multiple levels of student competency
- **0** = No: does not include any protocol

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Slide 39: Scoring for Student Assessment Analysis

The scoring criteria for calculating the scores for the Student Assessment Analysis are:

- A score of 2 or “Fully”, means that the curriculum includes one or more specific protocols for student assessment and multiple levels of student competency.
- A score of 1 or “Partially”, means that the curriculum includes one or more protocols for student assessment but not multiple levels of student competency.
- A score of 0 or “No”, means that the curriculum does not include any protocol for assessing student performance in this component (see example for grades K-2 on page 51 of the *PECAT*).

Calculating the Scores

- (1) Add all of the "2s" together
- (2) Add all of the "1s" together
- (3) Add two sums together
- (4) Place total number in the large box

Physical Education Curriculum Analysis Tool (PECAT)

Example of a Completed Scoring Sheet

Content Analysis for Standard 1 Grades K-2

The content analysis for standard 1, grades K-2, is completed by placing a check mark in either the box for "2", "1", or "0" after each question. Once this is complete, add the numbers down and then across and place in the content analysis total score box.

Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities

Does the curriculum include	Fully	Partially	No
	2	1	0
1. Specific lessons on fundamental movement skills, including locomotor (e.g., walk, skip, hop), nonlocomotor (e.g., bend, twist, rock), and manipulative (e.g., striking an object)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Specific introductory lessons on motor skills, such as rolling, transfer of body weight to one leg, or rhythmic movement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Specific lessons about the combination of movement and motor skills, such as dribbling a ball while walking or creating movement patterns using different speeds, directions, and skills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. At least one initial and one follow-up learning experience (e.g., introduction of basic tossing skills and then tossing a ball to a moving partner)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Does the curriculum clearly indicate the grade level at which each motor and movement skill should be introduced and subsequently taught?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Content Analysis Score for Standard 1 (Grades K-2) ① + ② + ③ = ⑥

Appendix 1: Example of Completed Scoring Sheet – Page 191

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Slide 40: Calculating the Scores

To calculate the scores for the Content and Student Assessment Analyses, follow these steps:

- (1) To determine the total number of points, first add all of the "2" responses together. For example, if the curriculum received three "2" responses on the content analysis for standard 1, grades K-2, the total for that column would be 6.
- (2) Next, add all of the "1" responses together. If the curriculum received two "1" responses, the total for that column would be 2.
- (3) Finally, add these two sums together and place the number in the large box in the lower right corner of the scoring sheets.
- (4) The total score for this example would be 6.

Note to Trainer. See an example of a completed scoring sheet for Content Analysis on page 191 of the *PECAT*.

Scoring Content and Student Assessment Analyses

Examples are only examples!!!

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Slide 41: Scoring Content and Student Assessment Analyses

Key point: The examples provided in the *PECAT* for Content and Student Assessment Analyses items are just that—examples. They are not intended to be the only items that should be considered when determining the extent to which the curriculum addresses a specific component of a standard. When you answer each question, be sure to consider additional relevant examples.

Additional State or Local Standards

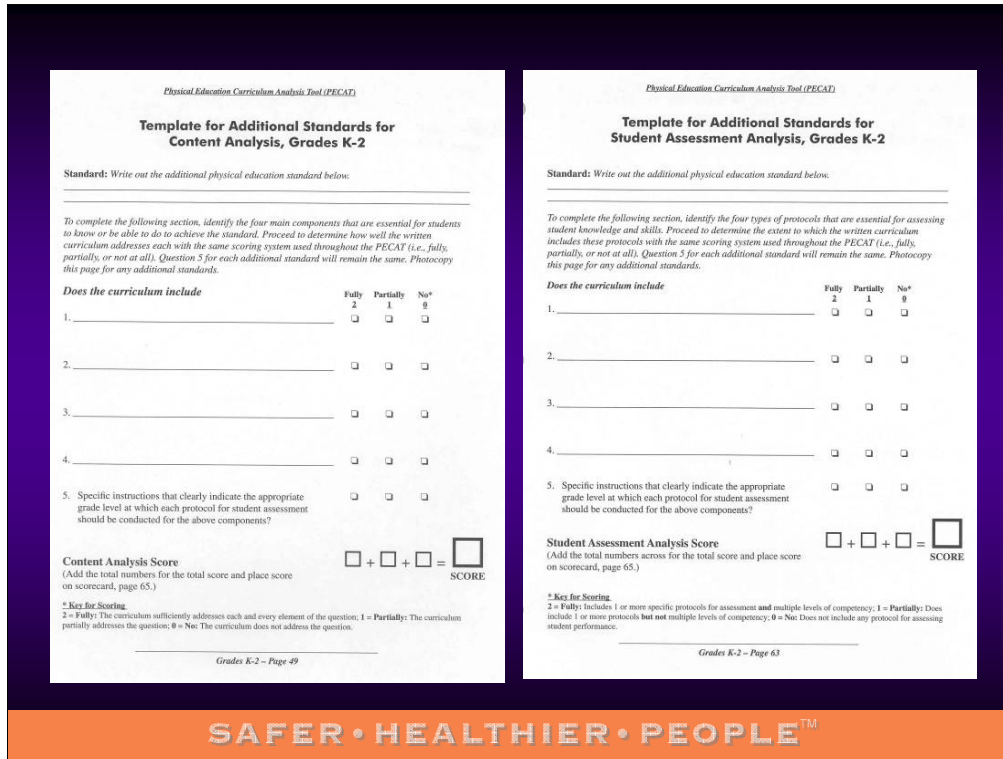
- What to do?
 - Use templates for Content and Student Assessment Analyses
 - Write standard
 - Identify 4 essential components
 - Enter score

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Slide 42: Additional State or Local Standards

What to do?

- For any additional state or local standards that differ from the national standards, a template follows each grade level range for both Content and Student Assessment. (For example, look at page 49 to see the template for additional standards for Content Analysis, Grades K-2; and page 63 for Student Assessment Analysis, grades K-2.) You will follow the same scoring system described previously, and you can complete as many templates as needed.
- Write out the entire standard.
- Identify four main components that are essential for students to know and be able to do in order to achieve the standard.
- Enter the score.



Slide 43: Templates for the Content Analysis and for the Student Assessment Analysis

Shown are the templates for the Content Analysis and for the Student Assessment Analysis for grades K—2, which can be found on pages 49 and 63 of the *PECAT*. Templates for each grade level are found in the respective grade level sections of the *PECAT* (e.g., for grades 3—5 see pages 85 and 89; for grades 6—8 see pages 121 and 135; and for grades 9—12 see pages 155 and 169).

Content and Student Assessment Analyses—What's Next?

- Transfer score for each standard to the corresponding grade-level scorecards.

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Slide 44: Content and Student Assessment Analyses—What's Next?

When the Content and Student Assessment Analyses for each grade level are completed, you will transfer the scores for each standard to the Content and Student Assessment Analyses Scorecards, located at the end of the section for that grade level (see example for grades K-2 on page 65, shown on next slide #45).

Physical Education Curriculum Analysis Tool (PECAT)

SCORECARD FOR CONTENT AND STUDENT ASSESSMENT ANALYSES

Grades K-2

To complete the scorecard for content and student assessment analyses (grades K-2), transfer the individual scores for each standard from the preceding pages.

NATIONAL STANDARD	CONTENT ANALYSIS SCORE	STUDENT ASSESSMENT ANALYSIS SCORE
1		
2		
3		
4		
5		
6		
<i>ADDITIONAL STANDARDS</i>		

Note: Add each of these scores to the overall PECAT scorecard on page 173.

Grades K-2 – Page 65

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Slide 45: Scorecard for the Content and Student Assessment Analyses

This is the blank Scorecard for the Content and Student Assessment Analyses for grade K-2 (page 65 of the *PECAT*).

Content and Student Assessment Analyses—What's Next?

- Transfer the scores for each grade-level and each standard to the Overall *PECAT* Scorecard

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Slide 46: Content and Student Assessment Analyses—What's Next?

Then, all of the scores on the Scorecards for each grade level should be transferred to the Overall *PECAT* Scorecard (page 173).

OVERALL PECAT SCORECARD

To complete the overall PECAT scorecard and examine strengths and weaknesses of a single curriculum, transfer each of the individual scores from the completed content and student assessment analyses scorecards to the corresponding location below.

Overall PECAT Scorecard – Page 173

STANDARD	Content Analysis Score for Each Grade Level				STANDARD	Student Assessment Analysis Score for Each Grade Level			
	K-2	3-5	6-8	9-12		K-2	3-5	6-8	9-12
Standard #1	9	6	9	10	Standard #1	6	5	9	5
Standard #2	8	7	7	9	Standard #2	7	8	9	9
Standard #3	6	5	5	6	Standard #3	10	7	5	6
Standard #4	7	7	6	7	Standard #4	8	5	5	5
Standard #5	5	5	5	5	Standard #5	0	2	1	0
Standard #6	6	5	6	6	Standard #6	0	2	2	2
<i>Additional Standards:</i>					<i>Additional Standards:</i>				
#1					#1				
#2					#2				
#3					#3				
#4					#4				

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Slide 47: Overall PECAT Scorecard

This is what a completed Overall Scorecard might look like. This form is found on page 173 of the *PECAT*.

Other considerations

- For each standard:
 - Identify answers with 2 points, as strengths.
 - Highlight answers with 1 or 0 points, as potential weaknesses or gaps.

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Slide 48: Other Considerations

For each standard, identify the answers that received 2 points and note those as strengths; next, highlight the answers that received 1 or 0 points and note those as potential weaknesses or gaps that need to be addressed in the curriculum improvement planning process.

Other considerations

- For each standard:
 - Review scores on scorecards per grade level analyzed.
 - Highlight discrepancies existing across two areas analyzed.
 - Determine where improvement is needed most.

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Slide 49: Other Considerations

Then, review the scores for each standard on the scorecards for each grade level analyzed. Highlight any discrepancies that exist across the two areas analyzed (e.g., considerably higher scores for content than for student assessment). This process can help determine where improvement is most needed (e.g., within content only, within student assessment only, in particular standards, on individual components, on specific grade-level ranges).

For Multiple Curricula Analyses

- Transfer all scores to *PECAT* Multiple Curricula Comparison Scorecard.
- Identify strengths and weaknesses of each curriculum.
- Select the strongest curriculum that meets local needs.

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Slide 50: For Multiple Curricula Analyses

If you are analyzing and comparing **multiple curricula**, transfer all content and student assessment analyses scores to the multiple curriculum scorecard located immediately after the individual *PECAT* overall scorecard (see pages 175 – 181). This will help you identify strengths and weaknesses of each curriculum and enable you to select the one that has strong scores and that will meet your local needs.

PECAT MULTIPLE CURRICULA COMPARISON SCORECARD GRADES K-2									
CONTENT ANALYSIS SCORES FOR GRADES K-2					STUDENT ASSESSMENT ANALYSIS SCORES FOR GRADES K-2				
<i>Curricula being analyzed</i>					<i>Curricula being analyzed</i>				
	Name:	Name:	Name:	Name:		Name:	Name:	Name:	Name:
Standard #1					Standard #1				
Standard #2					Standard #2				
Standard #3					Standard #3				
Standard #4					Standard #4				
Standard #5					Standard #5				
Standard #6					Standard #6				
<i>Additional Standards:</i>					<i>Additional Standards:</i>				
#1					#1				
#2					#2				
#3					#3				
#4					#4				

Slide 51: PECAT Multiple Curricula Comparison Scorecard

Here is an example of the *PECAT* Multiple Curricula Comparison Scorecard for Grades K—2 (page 175 of the *PECAT*). The other grade ranges follow the same scorecard format.



Slide 52: Locally Developed Curriculum

For those users reviewing a **locally developed** curriculum, the Curriculum Improvement Plan, beginning on page 183, will guide the *PECAT* committee through the action steps needed to create a plan for improvement.

The Curriculum Improvement Plan should not be used if you are reviewing commercially developed curricula.

Curriculum Improvement Plan

- The Curriculum Improvement Plan guides users through a process of:
 1. Interpreting scores.
 2. Completing worksheet.
 3. Implementing the plan.
 4. Reassessing for improvement.

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Slide 53: Curriculum Improvement Plan

The Curriculum Improvement Plan guides users through a process of:

- Interpreting and evaluating *PECAT* scores,
- Completing the improvement plan worksheet (highlighting those areas that are most feasible to improve),
- Implementing the improvement plan (that is, identifying recommendations, actions, and timeline); and,
- Reassessing and striving for continuous improvement.

Curriculum Improvement Plan Worksheet

Identified weaknesses within PECAT results	PECAT Committee recommendations	Necessary actions	Persons responsible and completion dates

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Curriculum Improvement Plan – Page 187

Physical Education Curriculum Analysis Tool (PECAT)

Slide 54: Curriculum Improvement Plan Worksheet

This is an example of the Curriculum Improvement Plan Worksheet (found on page 187 of the *PECAT*).

Curriculum Improvement Plan

- Follow through on Curriculum Improvement Plan:
 - Organize quarterly meetings.
 - Discuss progress.
 - Share progress with school officials.

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Slide 55: Curriculum Improvement Plan

- Once the curriculum improvement plan is in place, you will continue to organize meetings, at least quarterly, to discuss progress made on the improvement plan.
- You will need to schedule regular times for the *PECAT* committee, or the *PECAT* coordinator, to meet with appropriate school district administrators and school board members to share progress and heighten awareness of the curriculum needs for physical education.

Note to Trainer: If participants have questions about resources to help in implementing the actions determined in the curriculum improvement plan, direct them to the resources section of the *PECAT* (Appendix 4, pages 199 – 204),

Conclusions

- Use of the *PECAT* can provide valuable insight as to how well your curriculum aligns with national and/or state physical education standards.
- The Curriculum Improvement Plan should be utilized to guide your *PECAT* Committee through planning for revisions and enhancement to your curriculum.
- Identifying resources to assist with implementing the Curriculum Improvement Plan is an essential step.

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Slide 56: Conclusions

- Using the *PECAT* can provide valuable insight as to how well your curriculum aligns with physical education standards.
- Additionally, the Curriculum Improvement Plan should be utilized to guide your committee through planning for revisions and enhancement.
- Finally, utilize the Resources section of the *PECAT*, NASPE's resource list for curriculum and instruction, and other materials and tools for physical education.

What's Next?

- Now, let's look at a curriculum!



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Slide 57: What's Next?

Now, let's look at a curriculum! (image of footsteps)

Note to Trainer: If copies of the *PECAT* are not provided to the participants, distribute copies of the analyses forms. Begin the *PECAT* process.



Slide 58: Thank you!