



THE OHIO STATE UNIVERSITY

The Design of Pedagogy and Content Classes in Physical Education Teacher Education- Ohio State's Approach

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Our Agenda



**Practice-based
teacher education**

**Core teaching practices
in physical education**

**Introductory
methods class**

Some common but erroneous beliefs about teaching

- Teaching is not difficult.
- Teaching is best learned through experience.
- Teaching depends on creativity and improvisation.
- Teaching is a natural talent- some people are just born teachers.

Four critical observations about teaching and teacher education derived from these studies.

- Teaching consists of a specialized knowledge base knowledge and skill that defines the profession.
- Teaching involves informed decision making.
- Relying on a creativity, experience on the job, or talent has not been shown to serve our students well.
- Much of what we are doing in teacher education doesn't work, or doesn't work well, or isn't useful.

What should physical education teacher education do?

1. Prepare novice teachers with the knowledge and skills needed teach?
2. Prepare novice teachers to learn from their practice –to be students of their practice- so that they can be life long learners.
3. Graduate students who are **competent** novice teachers.

Practice-Based Teacher Education

The central focus of PBTE

is the consideration of transferable knowledge and skills that prospective teachers must acquire in their teacher training —**transferable in the sense that their usage in and across contexts during their teacher preparation, and then as practicing teachers, functions to help them learn from their practice.**

Ward & Cho (2021)

What does PBTE look like?

One theme occurs within **recurring** cycles of teaching to maximize deliberate practice and reflection that lead to teacher change. For example:

- (1) Systematic observation of lessons,
- (2) collective analysis by preservice teachers & instructors,
- (3) preparation for teaching,
- (4) rehearsal of teaching and repeated teaching,
- (5) actual student teaching with,
- (6) collective analysis of the instruction.

What does PBTE look like?

Another theme is to connect theory and practice. That is if you learn a theory it should be **demonstrably**, not just theoretically, related to the teaching.

In physical education this means questions about the degree of time spent in the teacher education curriculum on topics like exercise science, nutrition, anatomy-at the expense of the content of K-12 physical education.

Practice-based teacher education uses a process characterized by:

- focused rationales that underlie teacher education practices that in turn define the values of the teacher education program that can be demonstrably taught to pre-service teachers
- strong alignment between theory and practice
- teaching practice that occurs in the gymnasium or on the field, not in discussions in university classrooms
- teaching practice that is embedded in content, students, and context
- approximations of practice

What teacher education must do...

Define very clearly what preservice teachers must know to be successful as teachers and teach them the knowledge and skills so that preservice teachers graduate knowing and being able to teach well as beginning teachers and with the skill set to grow as teachers as they progress in their careers.

Practice-Based Teacher Education

Defining what teachers need to know.

One example of defining is **Core Practices**.

Supported by the pedagogies **teaching rehearsals** and **repeated teaching**

Core Practices

Core practice

Another way to define the content of teacher education is to focus on the important teaching knowledge and skills of teaching. What are called the core practices of teaching.

Characteristics of Core Practices

- Practices that occur with high frequency in teaching,
- Practices that novices can enact in classrooms across different curricula or instructional approaches,
- Practices that novices can actually begin to master,
- Practices that allow novices to learn more about students and about teaching,
- Practices that preserve the integrity and complexity of teaching, and
- Practices that are research-based and have the potential to improve student achievement.

Core Practices- Represent the core task domains of teaching-examples

- Organizing and representing content.
- Designing and teaching lessons to meet an objective.
- Developing and establishing rules, routines and expectations
- Design a sequence of lessons to meet an objective.
- Design a sequence of lessons to teach content
- Establishes rules and routines

Theory

Core practices are grounded in several theories but the ones I use are:

- deliberate practice (Ericsson, Krampe, & Tesch-Römer, 1993)
- Reflection (Schön, 1983)

both lead to improved decision making in the practice of learning to teach by preservice teachers.

Ward, Chen, Higginson,, & Xie,., (2018).

Xie, Ward, Atkinson, Cho, Kim, Li, & Oh. (2021)

Xie, Ward, Chey, Cho, Dillion, & Trainer, (in press).

Core Practice?

- Existing Core practices in
 - ▶ **Elementary mathematics** (Ball et al., 2009)
 - ▶ **Teaching in general** (Schneider-Kavanagh, Shahan, & Morrison, 2017; University of Michigan Teaching works 2018)
 - ▶ **History** (Fogo, 2014)
 - ▶ **Music** (Millican & Helweh-Forrester, 2018)
 - ▶ **Science** (Kloser, 2014)

Core Practice	Description
Establishes and uses rules and routines.	Teachers use rules and routines to maximize the time available for instruction. Routines are a framework that create continuity across lessons by making make predictable and thus routinized frequently occurring management tasks (e.g., attendance), transitional tasks (e.g., entering and leaving the gymnasium). Rules identify appropriate and inappropriate behaviors tied to high expectations.
Holds students accountable using informal and formal accountability systems.	Holding students accountable is a practice of ensuring students are successfully making progress in lessons. Accountability drives managerial and instructional tasks, but only if those tasks are developmentally appropriate, meaningful and presented in a motivating instructional setting
Establishes and maintains rapport with students.	Knowing who your students are and how to connect with them is a foundational requirement for teaching effectively. Teachers who make time to learn and understand student’s backgrounds, culture, values and prior knowledge become a student of their students. This allows for the development of respectfulness, positive and social interactions, and the design of meaningful and appropriate instruction.
Devotes at least 70% of lesson time to content.	Devoting the majority of lesson to teaching the content of the lesson is not just associated with student learning, it might be considered an ethical principle that teachers should be spending time on the content that they are being employed to teach.
Devotes at least 50% of the lesson time to creating MVPA.	While individual lessons may not always meet this criterion, most lessons should endeavor to do so as a commitment to public health goals and teachers should be able to demonstrate that they create this outcome.

Core Practice	Description
Represents to students developmentally appropriate content to students in small understandable chunks of information.	<p>An essential task of teaching is to organize and present content to students in understandable ways. Organizing the content into developmentally appropriate and sequential chunks is an important teaching practice for teachers to acquire. Teachers need a repertoire of content representations for use when they need to describe their tasks, to respond to students when they ask questions to clarify they task and to provide alternative explanations for students who have misunderstandings.</p>
Uses accurate demonstrations in presenting content to students.	<p>Demonstrations are not required in every instance of instruction, but when they are used they should accurately present the task to be performed. Similarly use of accurate pictures and recordings.</p>
Uses a sequence of extending and refining tasks to teach an objective.	<p>Content development refers to incremental and progressive sequencing of instructional tasks to teach a specific outcome. This is characterized by step-by-step incremental progression of both understandings and performance. Progressions should be goal directed and advance student learning toward terminal objectives of the lesson or of those of the instructional unit.</p>
Designs a developmentally appropriate sequence of lessons to teach content that meets unit objectives.	<p>Carefully-sequenced lessons that help students develop an deeper understanding and competence of content is an important practice. Effectively-sequenced lessons maintain a coherent focus for students linking past lessons with current lessons.</p>

Core Practice	Description
Enacts a developmentally appropriate sequence of lessons to teach content that meets unit objectives.	Teaching carefully planned lessons that meet student’s needs leads to deeper understanding and performance competence is an essential teaching practice
Selects and uses instructional methods and curricula to teach content.	There are a variety of instructional and curriculum models and their use be consistently faithful to their frameworks so that they produce specific outcomes.
Selects and uses methods to assess students' learning of content.	Effective formative assessments provide both students and teachers with ongoing feedback that allows teachers evaluate and design further instruction. Effective summative assessments provide teachers with information about what students have learned and where they are struggling in relation to specific learning outcomes at the end of a unit of instruction
Differentially modifies tasks to accommodate student learning for all students.	A hallmark of effective teaching is the teacher’s adjustment of their instruction to meet the needs of the students in their class.
Uses feedback, cues and prompts to correct and shape student learning.	Feedback, cues and prompts serve several functions in instruction and including informing, correcting, motivating and reinforcing student learning.

Core Practice	Description
Uses feedback, cues and prompts to correct and shape student learning.	Feedback, cues and prompts serve several functions in instruction and including informing, correcting, motivating and reinforcing student learning.
Analyzes and improves specific elements of their own teaching.	Learning to teach is an ongoing process that requires regular analysis of instruction and its effectiveness and different effects on students. The critical skills are reflection and effecting change in future teaching is a lifelong teaching practice. Analyzing instruction may take place individually or collectively and involves identifying salient features of the instruction and making reasoned hypotheses for how to improve.
Write appropriate, comprehensible, and professional messages to colleagues, parents, and others.	Competence in communication in the form of messages to colleagues, parents, and others is an essential teaching task.

What does Teacher Education need to do?

- Create frequent, systematic opportunities to practice using professional judgements that they use core practices in their teaching.

What does Teacher Education need to do?

- Teach more directly ‘on the work of teaching rather than on traditional academic or theoretical topics that may have only marginal relevance’

(Forzani, 2014 p. 357)

- Teaching practice that occurs in the gymnasium or on the field, not in discussions in university classrooms.

What does Teacher Education need to do?

- Create practices include to teach approximations of practice.
 - ▶ Teaching rehearsals.
 - ▶ Repeated practice of teaching.
 - ▶ Lessons that are very similar to the actual lesson and context.

What teacher education must do...

Preservice teachers must learn to adapt by applying PCK differentially according to the needs of the students.

Needs such as but not limited to physical performances (e.g., task accomplishment), cognitive understanding (e.g., rules, techniques, or procedures) interpersonal communication (e.g., positive and negative social interactions) and management (e.g., on/off task behavior).

Adaptive Teaching

Adaptive teaching is evidenced by flexible, sometimes innovative, behaviors that are a response to changing circumstances that are not working.

Adaptive teaching competence can be defined as a “teachers' ability to adjust their planning and teaching to the individual learning processes of students” (Brühwiler & Blatchford, 2011, p. 98)

Adaptive Teaching

Adaptive teaching includes at least four dimensions:

1. subject knowledge which refers to in-depth content knowledge and knowledge about differentiation,
2. diagnosis of student learning that concerns knowledge of students' individual learning, needs and characteristics,
3. teaching methods as part of the repertoire of teaching approaches, and
4. classroom management to facilitate student learning.

Practice based teacher education pedagogies

Teaching rehearsals: where the lesson is rehearsed.

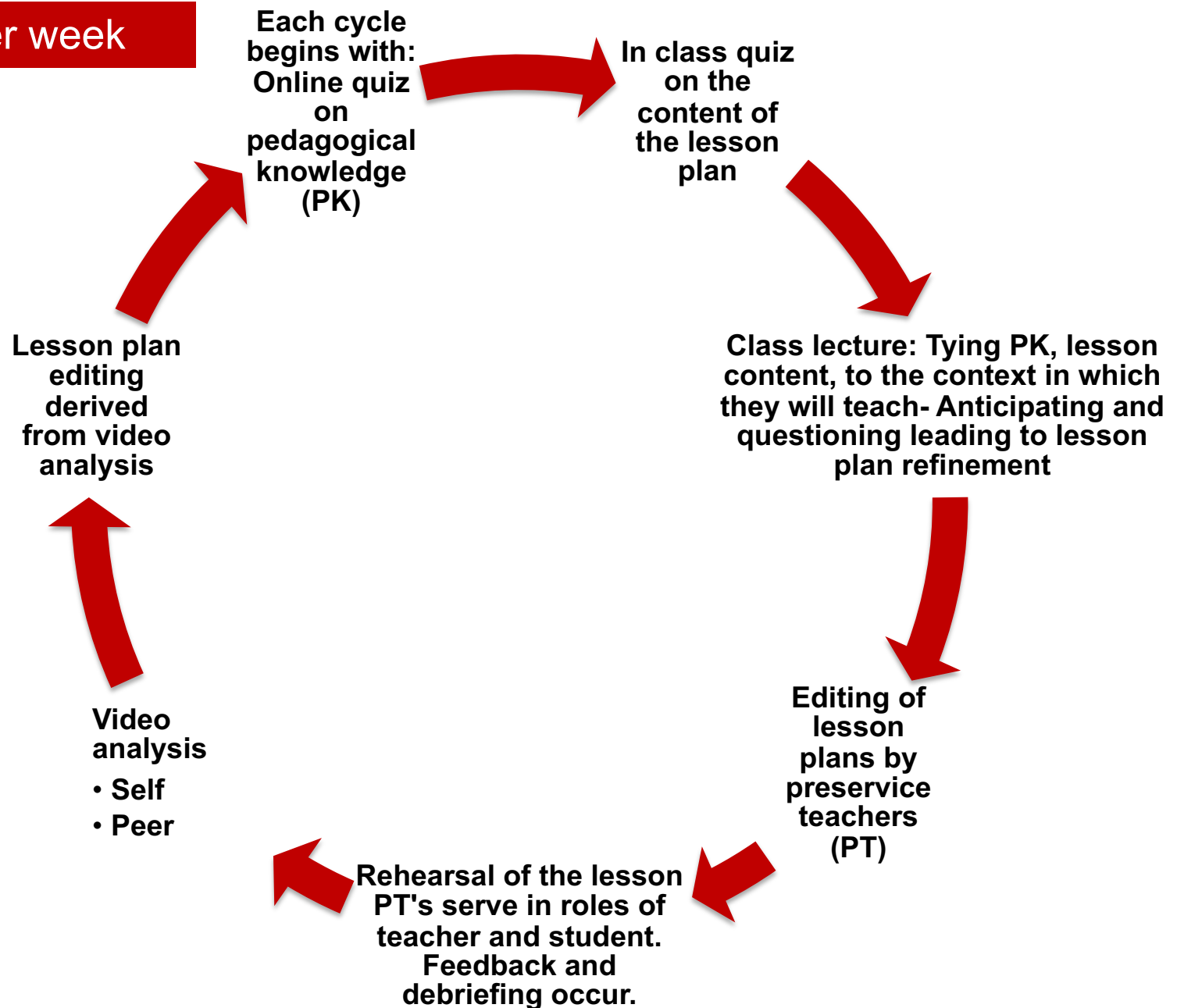
Repeated teaching: where the same lesson is rehearsed or taught several times.

Approximations: where the lesson taught is done so in conditions that approximate setting to be taught.

Scenarios: Where teachers discuss what they would do if.....

Video analyzing and interpreting: Where teachers and instructors analyze teaching.

Course life per week



Studies: Ward, Chen, Higginson,, & Xie.,. (2018).
Xie, Ward, Atkinson, Cho, Kim, Li, & Oh. (2021)
Xie, Ward, Chey, Cho, Dillion, & Trainer, (in press).

Systematic development of adaptation in an introductory teaching methods class

Phase 1 Learning to teach lesson 1			Phase 2 Learning to teach lesson 2		Phase 3 Generalizing to lesson 3			Phase 4 Generalizing to more groups		Phase 5 Generalizing more groups and new plan
Sept 3	Sept 10	Sept 17	Sept 24	Oct 8	Oct 15	Oct 22	Oct 29	Nov 5	Nov 12	Nov 19
Lesson 1 1 group 3-4 students	Lesson 1 1 group 3-4 students	Lesson 1 1 group 3-4 students	Lesson 2 1 group 3-4 students	Lesson 2 1 group 3-4 students	AU break	Lesson 3 1 group 3-4 students	Lesson 3 1 group 3-4 students	Lesson 3 X 2 groups	Lesson 3 X 2 groups	Lesson 4 X 2-3 groups

Teaching Rehearsal & Repeated Teaching

Teaching rehearsal and **repeated teaching** are critical pedagogies that enable teacher candidates to mastery and be able to apply the skills and knowledge of core practices within the time frame.

Teaching Rehearsal

Teaching rehearsal is a pedagogy that is used to **APPROXIMATE** pre-service teacher learning experiences by exposing preservice teachers to situations they are likely to encounter when they teach, they will begin to **understand the nuances of teaching**.

Teach preservice teachers skill sets that focus on not just delivering management, instruction and content, **but also on closely observing the effects of these elements with the goal of learning from their current experience by adapting these elements to accommodate students and improving their future teaching**.

Practices Focused on Teaching Rehearsals

- Routines and Rules
 - Signals (e.g., Freeze, Stop, Go)
- Transitioning (e.g., where to go, rotation)
- Familiarity with the content
- Lesson scripting/adaptation
 - Personal language/styles preference
 - Tasks adaptation base on students (few)
- Task presentation
 - Preciseness
 - Time management/Pace of the lesson

Teaching rehearsals & practiced-based teacher education

Teaching rehearsals as practice-based pedagogies can:

- **APPROXIMATE** pre-service teachers' experiences close enough to the actual lessons they will teach.
- All the practices are in lieu of actual teaching. In both instances they represent opportunities for preservice teachers to practice and receive feedback in a safe and supportive environment (Lampert et al., 2013)

Repeated Teaching

- A pedagogy which enables preservice teachers to continuously engage in a reflective cycle - observation, analysis, reflection, and adaptation
- The same lessons are repeatedly taught in authentic teaching contexts
- Results in the refinement and adjustment of practice
- **GOAL:** to begin to understand what is occurring in the process of teaching and why it might be occurring.

Repeated teaching & Practiced-based teacher education

Through repeated teaching in **authentic contexts** (both labs and schools), preservice teachers learn **transferable knowledge and skills**:

1. Core practices embedded in the lessons
2. Knowledge of students and contexts
3. Make proper decisions and adjustments based on the characteristics of teaching contexts and students
 - a. Time management
 - b. Lesson pace
 - c. Feedback
 - d. Lesson planning

Create Approximations

Preservice teachers learn transferable knowledge and skills through repeatedly teaching in authentic teaching contexts.

Teaching rehearsal (lab)

- Mimic student misbehaviors and skill levels
- Teach the entire lessons
- Teach the same lessons that will be taught in schools
- Teach the same # of students that student teachers will be teaching in schools
- Emphasize core practices that will be used in schools

Create Approximations

Preservice teachers learn transferable knowledge and skills through repeatedly teaching in authentic teaching contexts.

Repeated teaching (school)

- Teach the entire lessons
- Teach in real school contexts (considering weather; student learning needs, responses, characteristics, and motor and cognitive development; school time structure and space...)

Learning to make decisions in authentic contexts

What pedagogy and content to keep, what to refine, and what to change?

In lab

Lesson scripting (e.g. what to say, how to explain tasks)
(Some) teaching adaptation

In school

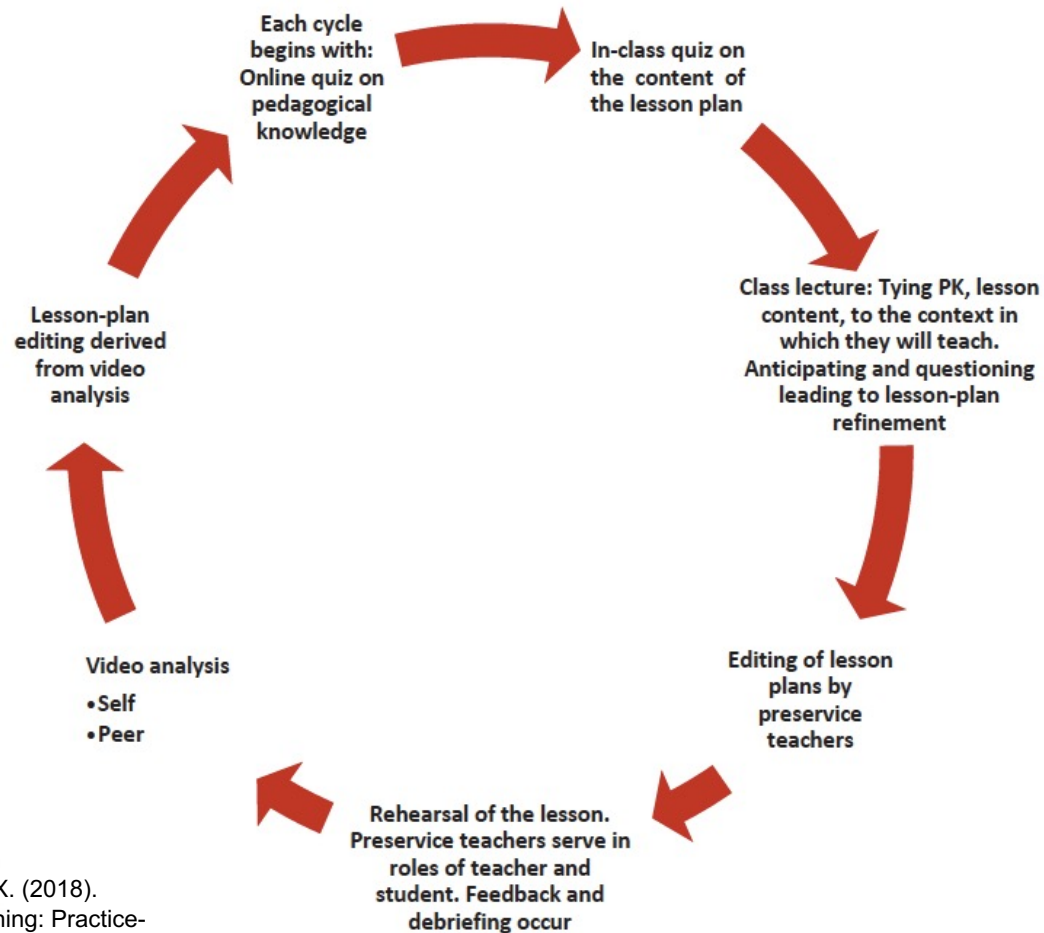
Teaching adaptation
 Lesson pace adjustment
 Feedback refinement
 Space adjustment

Teaching rehearsal & Repeated teaching IS / IS NOT

IS	IS NOT
Based on deliberate practice literature	Disconnected to literature
Practicing core practices in authentic contexts (labs or schools)	Learning theories in the classroom
Constant observation, analysis, reflection, and adaptation during teaching	Simply delivering lessons
Integration of instructional practices	Practicing discrete skills
Teaching entire lessons	Teaching a part of lessons (e.g. entry, exist, warmup...)
Teaching planned lessons (particular content, pedagogical content knowledge, and instructional and curriculum models)	
Experiencing the role of teacher and actively observing	

Designing Methods Classes

One Example: Our Cycle

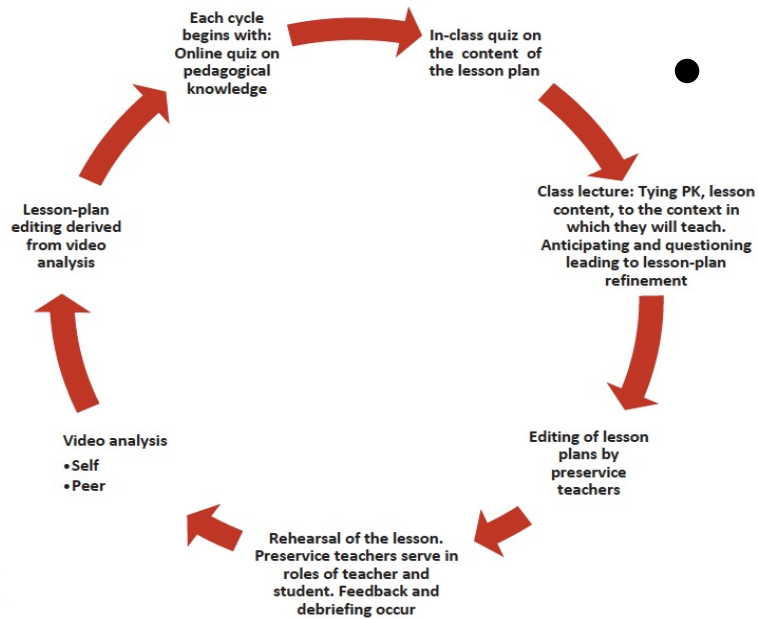


Ward, P., Chen, Y., Higginson, K., Xie, X. (2018). Teaching rehearsals and repeated teaching: Practice-based physical education teacher education pedagogies. *Journal of Physical Education, Recreation & Dance*, 89(6), 20-25.

Intro to pedagogy in PE and sport

- Once a week class
- 2 hour lecture in the morning
- 2 hour lab in the afternoon of the same day

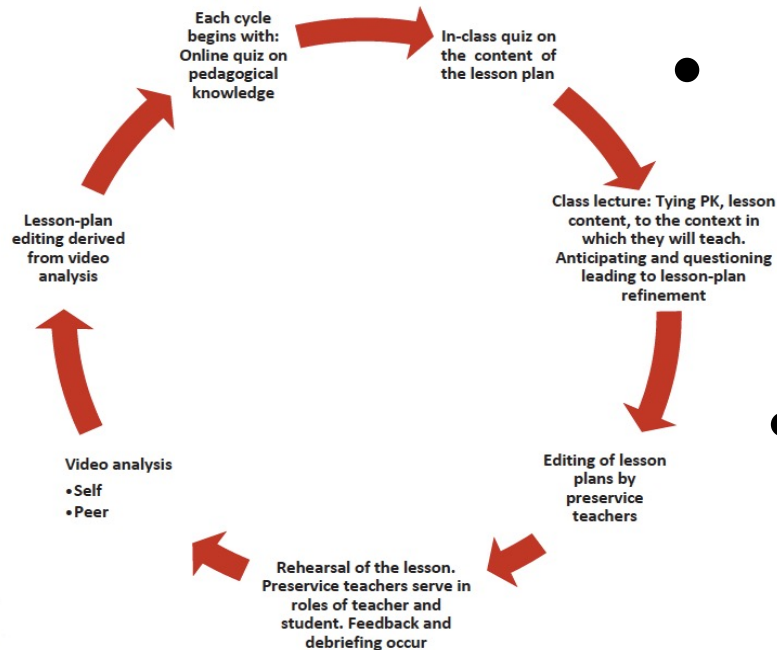
Step 1



Ward, P., et al. (2018)

- Student reading before class
- From the textbook
- Focused on a specific pedagogical skill
- Online quiz over the reading before class

Step 2

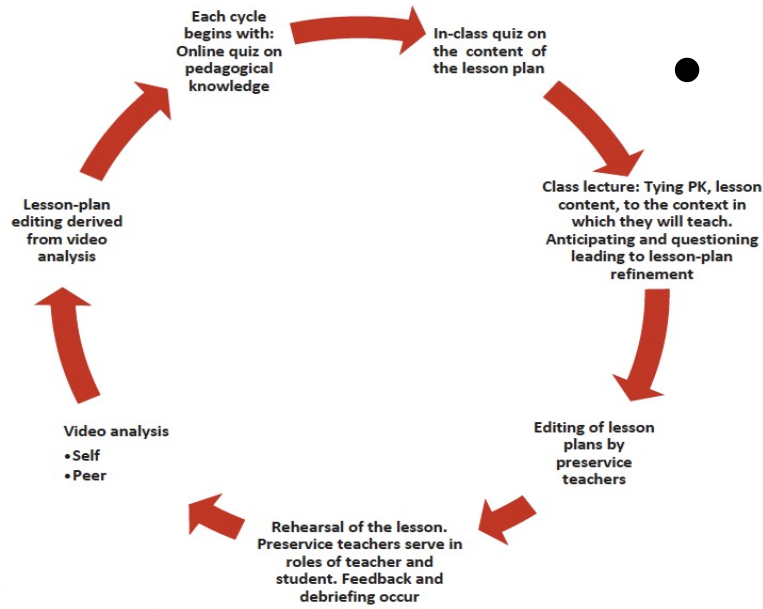


Ward, P., et al. (2018)

- Students study a lesson plan before class
- Designed by the teacher
- Will be used in schools
- In-class quiz over the reading before class

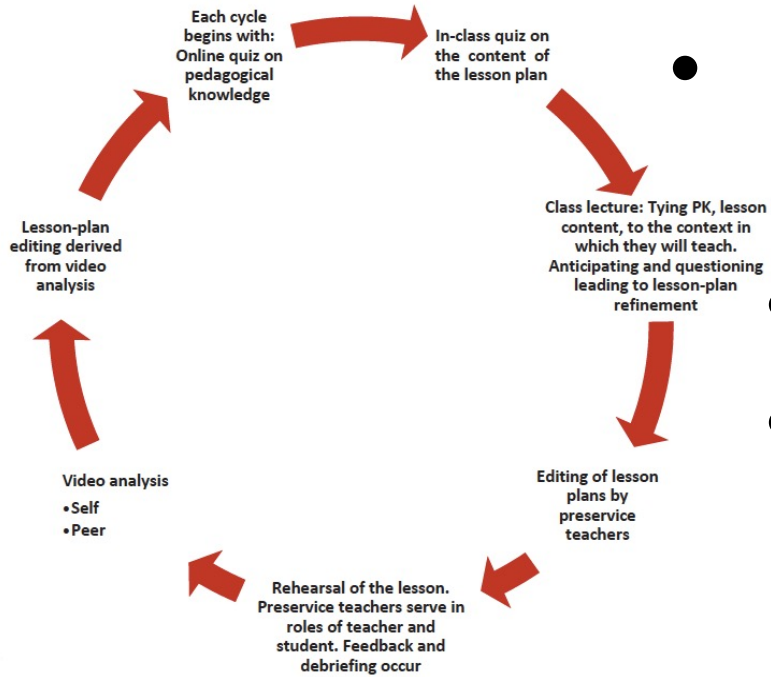
Step 3

- Lecture tying the pedagogy from readings to the lesson plan for the week



Ward, P., et al. (2018)

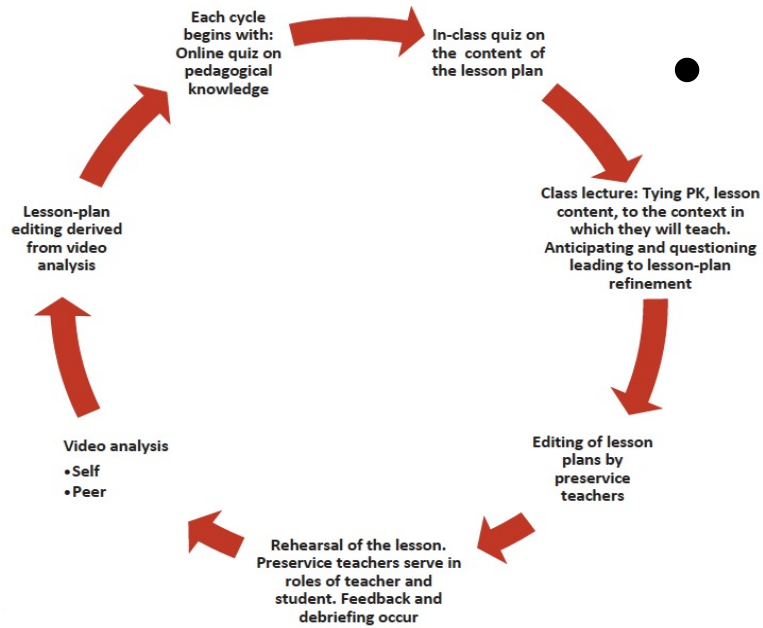
Step 4



- Rehearsal of the lesson plan in lab
- Teacher
- Student

Ward, P., et al. (2018)

Step 5

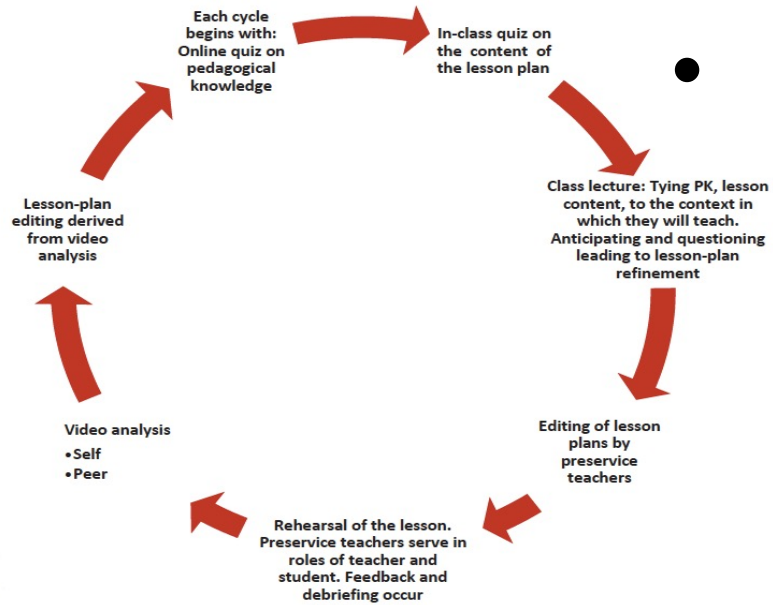


- Video Watching
- Self
- Peer

Ward, P., et al. (2018)

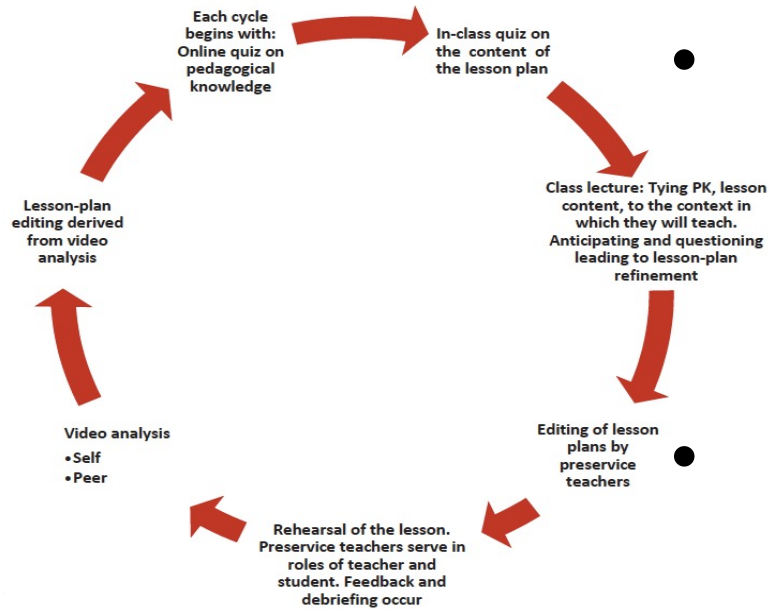
Step 6

- Student editing of the lesson plan



Ward, P., et al. (2018)

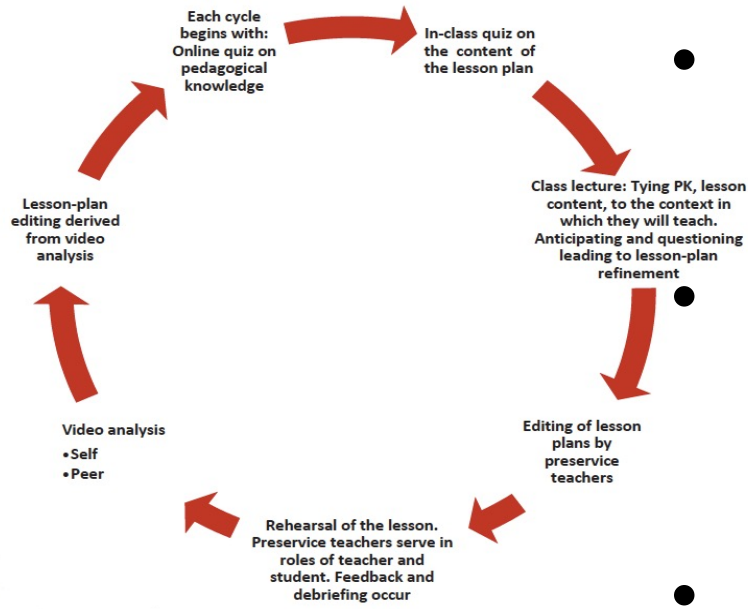
Second Cycle



Ward, P., et al. (2018)

- Students use their edited plans to teach a small group of middle school students
- Supervisors watch and give feedback
- Students adjust delivery of the plan to meet middle school student needs (pacing, explanation of tasks, ...)

Questions



Ward, P., et al. (2018)

- What other ideas do you have?
- How can you implement a similar cycle in your own program?
- What changes can you make in your own program to use core practices, practice based teacher ed., rehearsals, and repeated teaching?

Questions

Thank you for allowing me to share my thoughts on physical education teacher education

Email: Ward.116@osu.edu

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Ppt, class syllabus

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**THE LEARNING TO TEACH PHYSICAL EDUCATION
RESEARCH PROGRAM**