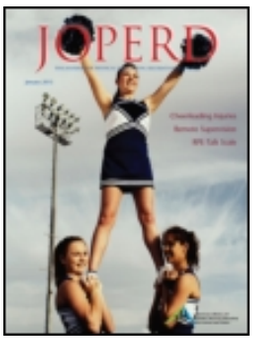

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Journal of Physical Education, Recreation & Dance

ISSN: 0730-3084 (Print) 2168-3816 (Online) Journal homepage: https://www.tandfonline.com/loi/ujrd20

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Rachel Gurvitch & Michael Metzler

To cite this article: Rachel Gurvitch & Michael Metzler (2013) Aligning Learning Activities with Instructional Models, Journal of Physical Education, Recreation & Dance, 84:3, 30-37, DOI: 10.1080/07303084.2013.767719

To link to this article: https://doi.org/10.1080/07303084.2013.767719

Aligning Learning Activities *with* Instructional Models

Rachel Gurvitch
Michael Metzler

You've chosen an instructional model for teaching. Which activities fit best within that model?

According to Metzler (2011), instructional models are "comprehensive and coherent plans" (p. 9) for teaching physical education. These plans serve as blueprints to give teachers and students a clear picture of what teaching and learning will look like in each content unit. Instruction is called "model-based" because the units are implemented within one of several models now commonly used in physical education (Metzler). Model-based instruction (MBI) has been increasingly used in physical education in the past two decades, in large part due to the growth in popularity of models like sport education (Siedentop, Hastie, & van der Mars, 2004), tactical games (Griffin, Mitchell, & Oslin, 1997), and teaching for personal and social responsibility (TPSR; Hellison, 2011).

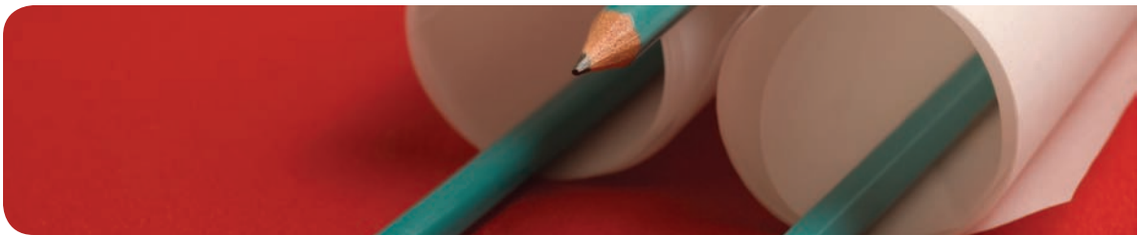
Metzler (2011) identified eight instructional models that are commonly used in physical education today. Each instructional model has a theme, which represents the "big idea" behind that model, and gives a preliminary indication of how students will be engaged to learn. The following are the eight models and themes:

- Direct instruction (the teacher as instructional leader)
- Personalized system for instruction (students progress as fast as they can or as slowly as they need)
- Cooperative learning (student learning with, by, and for each other)
- Sport education (learning to become competent, literate, and enthusiastic sportspersons)
- Peer teaching (I teach you, then you teach me)
- Inquiry (learner as a problem solver)
- Tactical games (teaching games for understanding)
- Teaching for personal and social responsibility (integration, transfer, empowerment, and teacher-student relationships)

Each instructional model is designed to promote certain kinds of learning outcomes for students, and to address different combinations of the national standards (National Association for Sport and Physical Education [NASPE], 2004). For instance, some models have a stronger emphasis on outcomes or standards in the cognitive domain, while others focus more on outcomes or standards in the psychomotor or affective domains. Because of those differences, each model uses a unique set of learning activities to help students achieve the expressed outcomes or standards in a model. It should be noted that there is no "overall" or definitive alignment between any instructional model and the national standards. That alignment will be determined by specifically analyzing many components and features of each model, including the learning activities selected by the teacher, leading to primary or secondary alignment with each standard (Metzler, 2011, pp. 7–8)

The purpose of this article is to show how teachers can align learning activities with the design, structure, and intended learning outcomes of several instructional models used in physical education

Rachel Gurvitch (rgurvitch@gsu.edu) is an associate professor, and Michael Metzler is a professor, in the Department of Kinesiology and Health at Georgia State University, in Atlanta, GA.



today. Readers who are not yet familiar with MBI can learn more about it in the book Instructional Models for Physical Education (Metzler, 2011) or at the accompanying web site (http://www.hhpcommunities.com/metzler/), which contains a brief overview of each model, sample unit plans, and other helpful resources.

How learners are engaged with the content directly determines what they will learn about that content, and how they can apply that knowledge. If students are engaged in learning the tennis serve by trying to replicate the teacher's demonstration of that skill (as in direct instruction), they come away with different knowledge than students who must learn and teach that skill to others in their class (as in peer teaching). Because each instructional model is designed to promote a unique array of learning outcomes, there are many differences in the kinds of learning activities used across models in physical education. This article describes how some typical learning activities in physical education are applied within each model and across different models. While some learning activities can be used across two or more models, the task presentation and task structure of those activities will change to be better aligned with the intended learning outcomes of each model.

Learning Activities

For this article, the authors define learning activity as the way students are engaged with content for the purpose of learning. The following selected learning activities are commonly integrated in model-based instructional units:

- Learning centers—Students engage in station learning in which each station focuses on different task dimensions. The stations can, but do not have to, be related to the same learning objective. Typically, students will experience the different stations during the same lesson.

- Drills—Students engage in repetition of a discrete skill in a short period of time to allow themselves many chances to be successful.
- Situated-learning tasks—Students engage in repetitive learning tasks that contain many features of authentic game situations (e.g., game rules apply, students take on defined positions, tactics and strategy are emphasized).
- Modified/lead-up games—Students engage in modified or scaled-down versions of games for the purpose of practicing the skills and tactics essential to be successful in the full-version games.
- Games—Students engage in full-version games while applying the skills and tactics learned and practiced throughout the instructional unit.
- Partner teaching—Students engage in teaching and receiving content information from each other.
- Videotaping for self-analysis of skills/tactics—Students videotape and/or observe their skill or game-related performance for the purpose of self-analysis.
- Cooperative tasks—Students work together in small groups for the purpose of accomplishing a common learning goal.
- Critical thinking—Students engage in an in-depth analysis to develop their decision-making ability.
- Discussion strategies—Students exchange their own views and opinions as an integral part of the learning process.
- Inquiry-guided learning—Students engage in a sequence of inquires throughout the lesson, in which there is more than one available answer for each inquiry.
- Didactic strategies—Students receive verbal and/or visual content information from the teacher.

Table 1 offers an overview of the instructional models identified by Metzler (2011) and the most commonly used learning activities in each model. The alignment of learning activities and instructional models is determined by the major learning outcomes intended in each model.

Task Presentation or Task Framing. Before students can engage in a learning activity, they must receive information about it. For nearly all learning activities in physical education, this information comes from the teacher, and the type of information will depend on the specific instructional model being used in a content unit. In some models (e.g., direct instruction, personalized system of instruction [PSI], sport education, peer teaching, and TPSR), teachers (or peer tutors) communicate the learning activity to students by presenting all of the information needed for engagement, including a description of the desired form and outcome of the activity. In other instructional models (e.g., cooperative learning, inquiry, and tactical games), teachers communicate pre-activity information by framing the upcoming learning activity. In these cases, students receive more general guidelines for engagement rather than a complete and accurate description of the activity and the expected performance outcome. A key difference between task presentation and task framing is that the latter does not include a description of the desired form or performance; students are given the latitude to be

The match between instructional model and the learning activities is determined by an analysis of the nature of the learning activities and their contribution to the specific model's benchmarks.

engaged in a number of acceptable ways and to determine their own answers and other outcomes from the learning activity.

Task Structure. Whether presenting or framing an upcoming learning activity, it is the teacher's responsibility to communicate to students the specific task structure of that learning activity. The task structure is defined as students' engagement patterns in the learning activity. It is determined by the teacher's plans for the organization of people, space, time, and equipment. Basically, the task structure determines the parameters that give each learning activity its form: how students will be grouped, where it takes place, how long it will last, and what equipment will be needed for proper engagement. Each learning activity used in physical education has a unique task structure. However, a learning activity's task structure may change across different models to be in better alignment with the intended learning goals for each model. For example, the task structure for modified and lead-up games may look different when implemented in direct instruction than it will in sport education. Table 2 offers an example of drills as a learning activity and how the task structure for drills can change across five different instructional models when basketball is the unit content. Table 3offers an additional example of how the task structure of games as learning activities can change across three different instructional models in a volleyball unit.

Selecting Learning Activities for MBI

Prior to the planning and implementation of the MBI unit, physical education teachers are encouraged to consider several questions that can guide their thought process in the selection of specific learning activities for their unit. The following questions are designed as self-checks that teachers should consider as they are engaged in the planning phase of their unit.

Which Model Is Being Used? Before selecting the learning activities, the teacher will have already selected the appropriate instructional model for a specific unit of instruction. As advised by Metzler (2011), the selection process of an instructional model should be a deductive process in which the teacher first determines the context, content, and desired learning outcomes. Then the teacher is ready to select an instructional model that can help in achieving those stated learning outcomes in the specific context. For example, if a teacher wants to teach a bowling unit and the context allows for sufficient space and resources for the students to practice bowling-related skills, the teacher could consider the PSI model. The PSI model is best suited for units that emphasize the psychomotor domain and that center around discrete skills that should be learned in a definite sequence (for additional information on the PSI model, see chapter 9 in Metzler).

Which Learning Activities Should Be Used? Once the teacher has selected the appropriate instructional model for the unit, he or she can start planning learning activities that will support the overall learning outcome for the unit and for each lesson. For each lesson, teachers will state a measurable learning outcome and a sequence of learning activities that will facilitate achieving that outcome. Since the learning activities are defined as the way students are engaged with the content for the purpose of learning, it is important to establish a match between the selected model and the learning activities. As suggested in table 1, not all learning activities can be used in every model. For example, learning centers cannot be used in a PSI unit due to the nature of this instructional model and the model's unique benchmarks (Metzler, 2011).

Table 1.
Instructional Models and Primary Learning Activities

	Instructional Model							
Learning Activity	**Direct Instruction**	**PSI**	**Cooperative Learning**	**Sport Education**	**Peer Teaching**	**Inquiry**	**Tactical Games**	**TPSR**
Learning centers	x			x				
Drills	x	x		x	x		x	
Situated-learning tasks		x		x			x	
Modified/lead-up games	x			x			x	
Games	x			x			x	
Partner teaching			x	x	x			x
Videotaping for self-analysis of skills/tactics		x		x			x	
Cooperative tasks			x	x				x
Critical thinking			x	x		x	x	x
Discussion strategies			x	x				x
Inquiry-guided learning			x			x	x	
Didactic strategy	x	x						

Table 2.
Drills as the Learning Activity Across the Different Instructional Models (basketball example in italics)

	Task Presentation	People	Space	Time	Equipment
Direct Instruction	Given by the teacher to the whole class. Includes a demonstration and all people, space, time, and equipment (PSTE) information. *The teacher demonstrates the layup with proper form and key performance cues.*	The teacher assigns students to groups to provide the maximum number of safe practice attempts in the allotted time for the drill. *Students are in groups of six for practice.*	Determined by the teacher and described to the class verbally. *Each group uses one of 6 baskets in the gym.*	Determined by the teacher. It can be set as a number of practice minutes, or a number of practice attempts. *Students practice for 5 minutes.*	The needed equipment is selected by the teacher, who also provides a plan for distributing the equipment. *Each basket has 6 balls under it.*
PSI	Provided to students via a written and/or visual media presentation. It will include all needed PSTE information. *Each student views a DVD of the proper form and performance cues for the layup. (Other students might be practicing a different skill at this time.)*	Each student arranges his/her own practice space according to the written instructions. *Each student practices on his/her own.*	Determined by the teacher and described to individual students via the written/visual instructions. *Each student sets up his/her practice area according to the instructions on the DVD.*	Each student takes the amount of time needed to reach the stated performance criterion for each drill. *Students practice the drill until they can make 6 of 10 layups. Completion time will differ among students.*	The needed equipment is described in the written/visual task presentation. Students individually secure equipment for each new drill. *The instructions tell each student what is needed for each drill, and how to secure what they need.*
Sport Education	Conducted by each team's "coach." Includes a demonstration and all managerial and performance information. *The coach demonstrates the layup with proper form and key performance cues.*	The "coach" assigns his/her players to teams for practice. *Players are in groups of four for practice.*	Determined by the "coach" and described to his/her team verbally. *This team has been assigned to one of four baskets in the gym for today's practice session.*	Determined by the "coach." It can be set as a number of practice minutes, or a number of practice attempts. *The team practices layups for the next 10 minutes.*	The needed equipment is selected by the "coach," who also provides a plan for distributing the equipment. *Three basketballs are distributed to the team for this drill.*

(Continued)

However, learning centers is perfectly appropriate for a unit using direct instruction or sport education. The match between instructional model and the learning activities is determined by an analysis of the nature of the learning activities and their contribution to the specific model's benchmarks.

Is Student Engagement Aligned with the Overall Purpose of the Selected Model? Once a teacher has identified the learning activities, he or she must make sure that they are in line with the overall philosophy of the selected instructional model. At this point, the instructional model determines the learning activities that should be

Table 2.
Drills as the Learning Activity Across the Different Instructional Models (basketball example in italics) (Continued)

	Task Presentation	People	Space	Time	Equipment
Peer Teaching	Given by the teacher to the "tutors." The tutors then communicate the task structure to their assigned learners. *The teacher demonstrates the layup with proper form and key performance cues to the tutors. The teacher also discusses how to be a good teacher for this drill. Each tutor provides the same task presentation to their assigned learner.*	The teacher places students in pairs, with one student designated as the tutor and one student designated as the learner for the first practice rotation. Students switch roles for each ensuing rotation. *The teacher places students in pairs and designates who will be the tutor and who will be the learner in the first rotation.*	Determined by the teacher and initially described to the tutors verbally. In turn, the tutors describe the practice space to their assigned learners. *Each pair is given one basket or one target on the wall to shoot at.*	Determined by the teacher. It can be set as a number of minutes, or a number of practice attempts before students switch roles. *The students practice for 5 minutes while the tutors provide feedback and encouragement. After 5 minutes they switch roles.*	The needed equipment is selected by the teacher, who also provides a plan for distributing the equipment for the first practice rotation. For ensuing rotations, the students "swap" the equipment being used. *Each pair is given one basketball to share.*
Tactical Games	The teacher frames the learning task so that students can understand how the task is performed in game conditions. This includes knowing one or more ways to solve the tactical problem before the drill begins. *Following a short half-court game, the teacher asks the class how well they got in position to make a high percentage of their layup shots. Then the teacher identifies the tactical problem that will be the focus of the next learning activity.*	The teacher arranges a situated drill and assigns students to different positions in the simulated task. *Students are placed in groups of three: 1 passer, 1 defender, 1 shooter.*	Determined by the teacher and described to the class verbally, along with applicable modifications and rules. *Each group has one basket for this drill.*	Determined by the teacher. It can be set as a number of practice minutes, or a number of practice attempts. *Students practice this drill for 15 minutes, changing positions every three shots.*	The needed equipment is selected by the teacher, who also provides a plan for distributing the equipment. *One ball is placed at each basket for a group to use.*

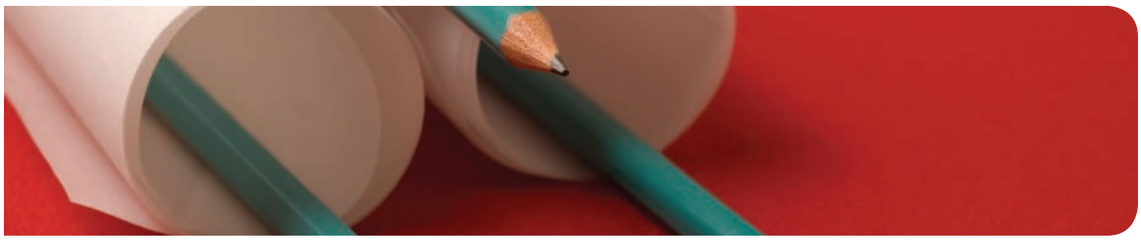
included in the lesson plans. If or when the learning activities do not match perfectly with the instructional model, they should be modified or refined. Once the teacher has started teaching the MBI unit, the instructional model should not be changed. The instructional model remains as the overall planning guide for the instructional unit, and the learning activities should match this structure.

Planning to Implement a Learning Activity in MBI

Once the teacher has selected a learning activity that is appropriate for the instructional model being used in a content unit, the next step is to plan for implementation. As with the selection of the

Table 3.
Modified Games as a Learning Activity Across the Different Instructional Models (volleyball example in italics)

	Task Presentation	People	Space	Time	Equipment
Direct Instruction	Presented by the teacher to the whole class. A demonstration of the modified game includes the game rules and specific performance information. *Must perform the sequence of bump, set, and spike before scoring.*	The teacher divides students into temporary teams to allow maximal opportunities to respond in modified game-like situations. *3 vs. 3*	The teacher determines the boundaries of the specific modified game to allow for successful and safe participation. *Half of the volleyball court*	The teacher determines the length of the game based on minutes of play time or points scored. *7-minute game*	The teacher distributes the equipment required for the game or may assign students to help with distribution/set up of equipment. *The teacher sets up the net and distributes the trainer volleyball balls (soft).*
Sport Education	Presented by the teacher to the different teams. A demonstration of the modified game between two teams includes an emphasis on managerial and content performance information. *Must perform the sequence of bump, set, and spike before scoring.*	The teacher assigns students to their teams at the beginning of the season for any modified games between teams. The coach/captain assigns students to groups for modified games within his or her team. *6 players on each team. Coach determines 2 groups per team*	The teacher allocates the space for modified games between teams. However, the coach/captain allocates the game space for any modified games played by his/her own team. *Half of the volleyball court*	The teacher determines the time allotted for modified games between teams. However, the coach/captain determines the number of game practice minutes or points for modified games within teams. *7-minute game*	The required equipment for the modified game is determined by the teacher for between-teams games. The coach/captain chooses the equipment needed for his/her groups within team game practice. *Equipment managers from each team assist the teacher in setting up the net and distributing volleyball balls.*
Tactical Games	The learning task is framed by the teacher to the whole class. It allows for an understanding of the general rules of the modified game. *The learning task is centered around the tactical problem of setting up the attack. Modified game of 6 vs. 6, where a team must perform the bump, set, and spike before scoring.*	The teacher assigns students to their teams (and even to the playing positions on the team) for the purpose of solving the learning task. *6 players on each team (2 bumpers, 2 setters, and 2 spikers)*	The teacher determines the boundaries of the specific modified game to allow for successful and safe participation in the modified game. *Each team on a whole side of the volleyball court*	The teacher determines the time allotted for modified games. It can be set as a number of minutes or points scored. *7-minute game*	The teacher distributes the equipment required for the modified game or may assign students to assist with distribution/ set-up of equipment. *The teacher sets up the net ahead of time and prepares the volleyballs for distribution.*



learning activities, this process involves asking a series of questions that will lead to the implementation of an efficient and effective learning experience for students.

Task Presentation. The first decision revolves around the need to present or frame the learning activity to the students. As mentioned earlier, the decision of whether to present or frame the task depends on the specific instructional model being used. For the first example in this section, the learning center is used as a learning activity for a kicking-to-a-target skill within the direct instruction model. The teacher must consider the following questions.

- What do I demonstrate or tell the students? It is important for teachers to plan ahead for the type of information they will present to the students. In the example of learning centers as the learning activity, the teacher should provide a full task presentation, including a full demonstration and cues for correctly kicking to a target. In addition, the teacher should communicate the desired performance outcome (i.e., kick it to the lower left corner).
- Who will be the model for the demonstration? Within the direct instruction model, teacher or student demonstrations are legitimate options. This decision, however, may depend on the students' performance level. Clearly, the teacher must make sure that students are able to benefit from the demonstration regardless of who demonstrates the task or skill.
- What is the location and organizational arrangements of the presentation? In the current example, the learning centers determine the location and organization of the task presentation. Since the learning centers have been set up in the gymnasium area in advance, the presentation of each task should take place at the relevant learning center. Students are positioned at the center or at any other area within the gymnasium in such a way that they can hear and see each of the learning centers' task presentations.

Framing is used instead of task presentation when the teacher wants students to "think, then move" in order to solve problems during the learning activity.

- What are the specific key elements that students must know? Each movement skill has several critical key elements that contribute to its effective and efficient performance. It is the task of teachers to communicate those key elements to students and help them acquire and master them for fluent and effective performance. These key performance elements also depend on the students' previous experience and current level of performance. Key elements for the kicking skill include (1) keep your eyes on the ball, (2) place your nonkicking foot next to the ball and point to the target, (3) kick the ball in its center, and (4) follow through and land on the kicking foot.
- What is the allotted time for the presentation? Generally speaking, the presentation of any task should not be too short or too long. Short task presentations may lack the details that students need to understand the task at hand, and long presentations may be redundant and lead to off-task behaviors among students. The allotted time for the presentation also depends on whether it is a review of a task that students completed in the past or a new experience, which may require more time to present. In the example of learning centers within the direct instruction model, it is recommended to limit each task presentation to two to three minutes.
- How will students know when the learning activity has been completed? It is recommended to provide students with information about the completion of the task. This information can be a number of practice trials or a specific length of time to practice a certain skill or movement. Since the students are engaged in a direct instructional model within learning centers, the completion of each learning center activity depends on the number of learning centers and the length of the actual lesson. For example, if there are five centers, at least five minutes of practice time should be allotted for each learning center. In this case, the total practice time would be 25 minutes.
- Who will check for understanding? Following each task presentation and before practice, teachers are recommended to check for their students' understanding of the task content (i.e., cues) and specific behavioral guidelines. Once implemented effectively, checking for understanding may save teachers a lot of time during their lessons. In the direct instruction model, following the task presentation and demonstration of the specific learning-center activity, the teacher addresses the students and asks them specific questions regarding the requested performance at a learning center. These questions often require students to repeat the information that they just received from the teacher. However, the purpose of these questions is to foster the students' thought process regarding the task at hand.

Task Framing. Framing is used instead of task presentation when the teacher wants students to "think, then move" in order to solve problems during the learning activity. For example, if the teacher is using the inquiry model to teach learners to kick a ball to a target, he or she would frame the learning activity by answering the following questions:

- How much and what information will the students need to get started on the activity? The teacher would reflect on what the learners already know about kicking a ball to a target, and use that as the basis for telling them additional information to get them to "think, then move." The key is to give them only enough information to get them engaged in the task, and for them to know what is expected of their performance: "The ball cannot be moving when you kick it. It must be on the floor, and your kicked ball must hit the target without bouncing first."
- How will students know when the learning activity has been completed? The teacher will tell them, "When you have hit your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target five times in a row, please raise your hand. When I acknowledge you, you may move to a harder target."

- What resources will students be given or have access to? The teacher shows students a bin of balls that are different sizes, weights, and textures, and tells them, "Pick the ball that you think works the best for you—but if you are not successful with that ball, go pick a different one."
- What ground rules will be in place to guide student engagement? The teacher shows students several stations, with one target at each station, and says, "Pick one station and one ball. Do not kick a ball that belongs to another student, and be sure that no one is in front of you when you kick. When you are successful, think about what you did to get that success."
- Under what circumstances will the teacher intervene while students are engaged? The teacher reminds students of the safety rules and allows them to practice on their own unless a safety problem occurs, or if a student is having consistent difficulty in kicking the ball to the target. If the student is having little or no success, the teacher will ask questions that may help the students to understand why he or she not succeeding and to think about different choices (e.g., larger target, lighter ball).

Organizational and Assessment Plans. Once a learning activity is in alignment with the instructional model being used and the teacher has planned for the presentation or framing of the learning activities, the class is ready for the next step. The guiding questions for the next step focus on people, space, time, equipment, and assessment. The answers to these questions are going to vary significantly, depending on the context, resources, instructional model, and learning strategies. Additionally, these guiding questions and others about people, time, space, equipment, and assessment are not unique to MBI. These are the same questions that teachers should routinely ask as they plan to implement any learning activity in physical education. Teachers should rely on their current pedagogical content knowledge to guide them through the following guiding questions:

- Will students be engaged individually, or grouped in pairs, small groups, large groups, or as a whole class? If individual engagement is not chosen, how will student groupings be made?
- If using groups, will those groups be based on some plan, or will they be random?
- Will the instructional space be defined as the whole gym or field, or will learning centers be established? If using learning centers, how will they be spread out in the instructional space?
- Will the duration of the learning activity be defined by time (e.g., practicing for 15 minutes) or by demonstrated student mastery (e.g., practicing until they are successful 5 times in a row). If time-based, how much time will be allotted? If mastery based, what are the criteria for completion?
- What equipment will students need for this learning activity? Are there any developmental considerations for the equipment (i.e., size, weight, texture)? How much equipment is available for the size of the class? How will the equipment be distributed? What safety precautions must be communicated to students about the equipment?
- What outcome of this learning activity will be assessed (e.g., knowledge, skill, responsibility)?
- What assessment technique will be used?
- Who will conduct the assessment (teacher, student partners, others)?
- How will the assessment be managed for maximum efficiency and information?

Conclusion

Physical education teachers who use MBI must be aware of the major types of learning outcomes intended in each instructional model. Once a teacher understands that, he or she can then select learning activities that will provide students with the kind of engagement needed to achieve those outcomes. However, as this article points out, the teacher will need to take the additional step of aligning each learning activity's task presentation or framing and task structure with the instructional model being used in each unit. Once that alignment occurs, the teacher can be more confident that the students will learn in a way that is consistent with the model's design and that the intended learning outcomes can be achieved.

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