PART II Effective Teaching Skills

Chapter 4 Designing Learning Experiences and Tasks

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OUTLINE FOR A LEARNING EXPERIENCE

Your criteria for a learning experience were presented in chapter 1 as a guide for teachers to use to determine the educational value of the experiences. These criteria are:

- Criterion One: The learning experience must have the potential to improve the motor performance/activity skills of students.
- Criterion Two: The learning experience must provide maximal activity or practice time for all students at an appropriate level of ability.
- Criterion Three: The learning experience must be appropriate for the experiential level of all students.
- Criterion Four: The learning experience should have the potential to integrate the psychomotor, affective, and cognitive educational goals whenever possible.

From the previous chapter on the research base for childhood education, you should begin to see the importance and impact of these criteria. Opportunity to learn and experience is designed at an appropriate level for all students. Critical ideas are inherent in the design of an educational program. The focus of this chapter is to help you design learning experiences that meet these criteria, as it is not always easy to do.

DESIGNING THE MOVEMENT TASK

At the heart of each learning experience is the movement task. Movement tasks are the specific experiences that constitute learning experiences in physical education. When the teacher says, "Practice dribbling the ball until you can't hear the ball," the student is given a movement task. Movement tasks are what students do that are related to the content. When students are involved in movement task, they are involved in content with specific intent and are organized in some way to engage in the task. There is always a what, a why, and a how to a movement task. Teachers should not just say, "Go practice basketball dribbling." If the teacher does not describe how dribbling will be practiced in a group instructional setting and the intent of that practice, the experience lacks focus.

Movement tasks have a content dimension, a goal orientation, and an organizational dimension that provide the needed focus:

- **The content of the task** is the fundamental content with which the students are asked to work.
- **The goal orientation of the task** describes the qualitative, or goal, aspect of the movement experience.
- **The organization of the task** is concerned with arrangements of time, space, people, and equipment, all designed to facilitate work on the task.

Consider the examples of movement tasks presented in Box 4.1.

In some lesson situations, organizational arrangements for tasks are implicit in a situation because of previous experiences or established procedures. They are always present in some form, whether they are explicit or made explicit by the teacher. Each of these dimensions of the task is a critical aspect of task design. As important parts of the task, they can be manipulated by the teacher to achieve different goals and different objectives.

**Content Dimension of Movement Tasks**

The content dimension of the movement task describes for the learner the substance of the task (e.g., pass the ball to a partner, play softball, or self-assess your performance). The choice of content is primarily a curricular decision based on the unit of study and lesson objectives. Teachers decide on a progression of experiences that lead the learners from where they are to where the teachers want them to be with the content. Once these decisions are made, however, teachers must further decide (1) the amount of decision making students will have in the choice of content and (2) the effective and cognitive involvement of the learner in each task. Teachers rarely make these decisions for a whole lesson. Each task is a unique decision for the teacher.

Teachers select the content of a task because they think that having students experience that content is important to a learning goal. As stated in chapter 1, if the teacher has no goals, it does not matter what tasks are provided to learners. The selection of the content of a task is easier if the teacher's goals are clear. As a beginning teacher, the content you are to teach will probably be selected for you. In this case, you will have to determine the best task to use to develop that content with a given set of learners.

Most of the learning experiences teachers present will be related to learning motor skills. The teacher will select a skill to teach and then will develop a learning experience to improve learner performance in that skill. Sequencing content is discussed in chapter 6 on content development. Designing learning experiences to meet other goals is also discussed in chapter 6.

**Checking the value of the content you have selected.** The content you choose can contribute to one or more of the following goals:

- **If students are engaged in this content, will this content contribute to an objective I have for my program?**
- **Is the experience valuable for all of the students?**
- **Are there students for whom this experience is not challenging?**
- **Are there some students for whom this experience is too difficult for them to experience success?**
- **Would the experience have more value if I re-designed the task to include both cognitive and affective involvement on the part of the learner?**

Box 4.2 illustrates examples of content that is re-designed to include a concern for the appropriateness of the task for individuals as well as a concern for more inclusive involvement of the learner.

**Goal-Setting Dimension of the Task**

Goal setting involves communicating to the learner the intent of a task and student practice. Most teachers assume the intent, or purpose, is to "learn" a skill or concept, but the perceptions of students about what the intent might be and the intent of the teacher may be different. When learning motor skills, for instance, most teachers assume that the goal is to improve "form" or how the skill is done. Most of the time students are not working toward this goal; they are more interested in what the skill accomplishes rather than how the skill is performed. The students and the teacher are more likely to have the same goal for a movement task if that goal is shared with the students at the beginning of the lesson.

Example: "I am more interested in whether you can use each of these cues in your performance than I am in how hard you can hit the ball."
Most teachers want students to become more proficient at motor skills, but learners cannot acquire proficiency in short periods of practice for one task. Instead, they acquire proficiency in stages. For instance, an initial goal for students in learning to field a ball might be to get their body situated in the proper fielding position. Later goals might involve the position of the glove or what to do after the ball is in the glove. In chapter 2 the importance of making tasks achievable for students was identified as an important aspect of learning. Teachers can manipulate the goal orientation of tasks to ensure success by setting short-term goals en route to proficiency.

Examples:
- "I don't care where the ball goes right now. I just want you to get the feel of the movement."
- "Walk through your sequence until you know what the transitions are going to be. You don't have to do each move until you have it all figured out."

Teachers often explain a skill and then have the students start to practice or work on a task without the benefit of a goal for practice. For example, assume that the teacher has worked on the toss in a tennis serve and has explained the critical cues involved in the tennis toss. To set a useful goal for practice, the teacher might say, "Toss the ball until you can get it to land in the same spot consistently." The practice then has purpose. Teacher goals can also be set for practice involving skills that do not have easily identifiable results or that do not result in movement responses that are the same for all students. For example, the teacher can say, "Practice the backward roll until you don't have to stop the movement to let your head come through" or "Find all the ways you can think of to balance using three parts of the body as a base." These tasks provide a goal rather than just an intent to move.

It is also possible for goals to be both individualized and personalized for the student. When teachers individualize or personalize goals, they are accommodating individual differences in students (e.g., "Some of you may want to work to get ten in a row and some of you may want to choose to get your pattern smoother."). Goal setting helps learners focus their work and realistically evaluate their progress. Goal setting also helps the teacher with analysis, observation, and evaluation of student responses in preparation for a new task focus.

The goal orientation of the task cannot be assumed unless stated by the teacher. Teacher responsibilities include not only telling students what task to do but also informing them how to do the task and indicating the goal toward which the task contributes. Statements such as the following help by giving the learner a goal and a qualitative emphasis in practice:
- "Work to get the transitions smooth."
- "Stay at the dribble until you can bounce the ball five times without looking at it."
- "Don't worry about accuracy yet, but work toward getting a full swing and hard hit."
- "Stay with the toss until you get the ball to fall consistently in one spot."
- "Choose a specific goal for your practice today so that you can evaluate your work at the end of the period."

An intent for good performance is communicated in these tasks. The teacher is sharing the purposes for which the tasks are designed, which gives the learners a focus in their practice.

More specific and narrower focuses of tasks will make the goal orientation clearer. Follow-up tasks that focus the learner on the quality of the response (e.g., "Make your body shape much clearer") provides a clear goal for students when efficiency of performance is what the teacher has identified as most important. These types of tasks are called refining tasks. More specific and narrower focuses of this type also sequence learning cues for students one at a time. Students, particularly beginning learners, cannot assimilate a lot of information about movement at one time. The teacher can sequence goals for performance so that major ideas of good performance can be handled first and then performance can be polished.

When students are ready to test the effectiveness of their performance, a task with an application/assessment focus provides a clear goal. Application/assessment tasks take the focus of the learner off how to execute the movement and put it on the product of the performance. Application/assessment tasks can be designed as self-testing, assessment experiences or comparative experiences against others. The following examples have been reworded from previous
examples to illustrate the design of an application task and to clarify the goal orientation:

- "See how long it takes you before you can get your roll so smooth that you don’t have to stop to let your head through."
- "Work until you can hit the ball seven out of ten times in the same spot without losing control."
- "Count how many ways you can find to balance on three parts of your body."
- "When you are ready, ask your partner to assess your form using the checklist."

A warning: There is a danger in designing tasks focused on application/assessment too soon. The student focus is taken off the quality of movement in highly competitive tasks, even those of a self-testing nature. Beginning tasks should help the learner focus on the intent of the whole movement and not just on the effectiveness.

Tasks that involve group responses, such as "Design an aerobic dance sequence in groups of four students," should have a clear goal. In this instance the teacher should establish that students are to work, what a good sequence would look like, and what good group work would look like.

Organizational Arrangements for Tasks

In group instruction, teachers must make decisions about the following:

- Whether students will work on a task alone or with a partner or group (people)
- How long they will practice (time)
- Where students will work on the task (space)
- What equipment they will use (equipment)

These decisions are organizational. They arrange the environment for the content of the task. The teacher arranges the environment: not only to the content of the movement task itself, but also to the potential of that experience to contribute positively to other program goals and objectives.

Environmental arrangements are instructional arrangements for people, time, space, and equipment. Sometimes these arrangements are explicit in a task, and sometimes they are implicit. They should always be purposefully designed. The teacher arranges people, time, space, and equipment to accomplish specific objectives. Teachers should not underestimate the importance of environmental arrangements in the facilitation of learning. Hough et al. (1975) define instruction as "the process of arranging human, material, and temporal resources with the intent of facilitating one's own learning and the learning of others." Arranging environments for learning and instruction is part of if not the same process.

Arranging people. In physical education, arrangements for people include decisions concerned with the number of students in a group, the number of students active within each group, and the criteria the teacher uses to group the students.

Group size. Group size and opportunity for learning are integrally related. It is often useful to consider the following categories when determining how students are functioning within a class:

- Individual
- Partner
- Small group (three to six)
- Large group (seven or more)
- Whole class

In each of the units mentioned, one student or all students within a single group can be active. For example, relays are usually a small-group activity, but only one student is active at a time. The game of "Keep Away" in volleyball is a small-group activity with all students active.

Teachers should base the decision of how many students to include in a group primarily on the answer to the question, "How many students are necessary to engage in this task?" Some skills or experiences require more than one or two people to a group (e.g., offensive and defensive game experience cannot be gained by working alone). However, many teachers group students into larger units than necessary to practice a task. As a result, students are forced to share equipment and wait for turns. Sometimes limited space or equipment forces less than total activity. Sometimes students who cannot respond productively in a total activity environment need to be arranged in organizational formats that allow for greater teacher monitoring. And sometimes teachers will want to give students roles in a group other than being physically active, such as observing, assessing each other, or working on a task together in a cooperative way.

Again, it should be stressed that teachers should seek out alternatives to inactivity and work toward an environment that permits all students to be active.

Criteria for grouping. Criteria for grouping determine the basis on which students are put in groups. Unfortunately, most physical educators group randomly, using no criteria. Grouping is a powerful tool that a teacher can use to influence the learning process, yet many times teachers fail to take advantage of it. One of the most destructive ways of grouping students is legendary in our profession. We still have teachers choosing captains and having captains battle it out for the best and worst players.

Consider the situation in which twenty-five students are in class at five different levels of ability in a particular activity. Assume that the unit is a basketball unit and that the students at levels one and two are ready for a five-on-five game using regulation rules. The students at levels four and five are able to handle only modified situations. The class is coed, with no more than the usual number of social antagonists in the group. How would you handle this situation?

The immediate response of most beginning teachers to this situation is to create five teams with one student from each ability level. The first criterion for a learning experience, as described at the beginning of this chapter, is that the experience be appropriate for the student. Grouping five different ability levels on one team, regardless of game design, makes the experience inappropriate for a majority of students. The rationale given for such a decision is that the less-skilled players will learn from the more-skilled players. The students most likely will learn, but probably not much about basketball. It is sometimes desirable for students with greater skill to be placed in situations where they have to adapt to the abilities of less-skilled students. And in some situations, students with less ability profit from being with students with similar abilities. There is a new approach to teaching physical education, called sport education, which deliberately places students with different abilities on the same team. The teacher then works with these teams in a deliberate way to make sure that the needs of all students placed on a team are being met. In the basketball situation just described you do not want to put students in a situation where they are continuously criticized for not passing the ball to someone who loses possession every time. What are the alternatives? How can this situation be handled?

Although research findings are mixed on the value of ability grouping, this criterion remains one of the
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Defining the practice area. Teachers must initially define the area of the field or gymnasium that will be considered the practice area. Teachers who neglect to establish clear practice areas probably will need to recall students from remote areas of a playing field or from the side of the gymnasiums, where the students are leaning against walls or hanging on apparatus. Practice areas can be defined with natural boundaries, such as the boundaries of the court.
students some opportunity to experience the effects of a larger space on their movement. This is particularly true in game areas, where force production and redirection are crucial. It should be considered also in dance and gymnastics tasks. The challenge is to allow some students the opportunity to use larger spaces and at the same time provide meaningful tasks for those who do not have use of the larger space.

The size of the space also is an important organizational decision, because teachers can manipulate the size of the space to reduce or extend the complexity or difficulty of a task, either for the class or for individuals. The need for large space must be balanced with the need for maximal activity. I once observed a high school floor hockey class of forty students in which twelve students were playing and twenty-eight were sitting out. The value of that experience for any of the students was indeed questionable.

Organizing people in space. The organization of people in space concerns the spatial formation of people in the play area. Figure 4.1 describes some of the more popular arrangements for people. The present emphasis on maximal participation in physical education classes has made the use of lines, squads, and circles of people less popular than it once was. Much time is lost getting people into these formations, and many of these formations were used to restrict the number of people active at any one time.

The scattered formation is a useful organizational arrangement of people when all individuals are going to be active at one time and when the task does not require other spatial arrangements. Telling individual students, partners, or small groups to quickly find a place to work readies students for activity without extensive time spent in organization; also, it uses all the play area available. Having other students around them, all working at the same time, is probably less confusing to the students than it is for the teacher. The scattered formation also eliminates the situation where one student watches another perform. This can be an asset when working with all learners, but particularly beginning learners.

The problem with the scattered formation is that the teacher cannot observe students as easily as in formal formations. Students can get "lost" in the crowd easily unless teachers circulate and make it a point to be aware of the total group. At times, teachers will want students to be in more formal organizations. Task presentations that are teacher paced (e.g., initial practice of dance steps) are more successful if everyone is facing the same direction. The practice of striking or throwing skills, either with partners or against a wall, is safer if missed balls do not interfere with other students. Teachers will want to consider front-facing lines for these sorts of activities.

Group games usually have their own organizational formats. Teachers are cautioned to be alert in selecting games that have high rates of student activity. Highly organized formations for skill practice usually require much time to get students organized and often are unnecessary for the skills practiced. It is not uncommon to see a teacher take seven minutes to get students into a practice situation that lasts three minutes.

Arranging equipment. Procurement and arrangement of equipment are also critical determinants in the potential ability of a motor task to accomplish its objectives. For most situations, particularly in the games and sports areas, it is ideal to have one piece of equipment for each student or, in the case of specialized equipment, for every two students. Teachers should try to avoid a situation where the arrangements for people and space are dictated by the amount of equipment available. Few children in an ordinary classroom share texts, papers, or pencils. They should not be expected to share equipment when one piece of equipment for each learner is appropriate.

Included in decisions about equipment is determining whether to provide all students with exactly the same equipment (e.g., the same size, weight, or shape ball; the same rhythm instruments in dance; the same arrangements of apparatus; the same height net). As with decisions regarding space, the arrangement of equipment can change or modify the tasks. Higher nets in volleyball encourage getting under the ball to play it; lower nets make the spike more attainable for shorter or less-skilled players. Some combinations of gymnastics apparatus encourage travelling in one direction, whereas other combinations of equipment encourage a change in direction. The size and weight of manipulative equipment can often determine whether younger and less-skilled students can be successful in performing a skill in an efficient way. Nothing is sacred about regulation-size equipment. If the equipment needs to be modified, teachers should seriously consider modifying it, even on an individual basis. The choice and arrangement of equipment is not just an organizational detail, but a critical factor of task design.
1. Make sure all students have the prerequisites to do a skill. It is unsafe to ask students to try a skill they have no chance of being successful with. Not all students are ready to do a gymnastics vault or to catch a hard and fast ball at the same time. If you have students in the class who cannot do what most other students are ready for, you must individualize the task (see next section).

2. Do not let students work “out of control” in any task. Make control of movement a goal for all experiences. Students who are allowed to swing away recklessly with a bat, stick, or racket or are allowed to fling their bodies at equipment or a mat are dangerous to themselves and others and should not be allowed to function in this manner with any content.

3. Teach students how to work safely with a task. Students can be taught to work safely in physical education:
   - They can be helped to be aware of others in their movement and adjust their movement in relation to others.
   - They can be made aware of the danger of flying balls and work with control.
   - They can be taught to return other student’s equipment to them without flinging the equipment across the gymnasium.
   - They can be taught what control is on landings from a gymnastic move and taught how to land without control.
   - They can be taught any kind of “crashing” into students or anything else is not allowed in class.
   - They can be taught not to assist others in their movements unless asked to do so by the teacher.
   - They can be taught to look around and make sure they have enough space before they swing any implement.
   - They can be taught “test off equipment and on it” and to not use large equipment unless they have permission so they are not tempted to “fool around” on the equipment.

4. Arrange the environment for safe participation and practice of the skill. Each context creates its own potential for being a safety problem and the teacher must think through the potential problems with each task that is given. Some examples follow:
   - Gymnastics must include mats if students are going to land from great heights.
   - Finish lines for races must be placed well before a wall or other obstruction so that students have time to decelerate.
   - Targets for archery must be staggered at different distances rather than where students line up to shoot at the target.
   - Any sport in which the student is swinging an implement must ensure that there is enough space to do so safely.
   - Objects traveling at great speed should never come “by accident” to another student.
   - When students are all moving in the same space they must be taught how to do this safely.

**BOX 4.3**

**Possibilities for Student Choice Relating to Environmental Arrangements of Tasks**

<table>
<thead>
<tr>
<th>People</th>
<th>Who to work with</th>
<th>How to choose who to work with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>When to start a movement</td>
<td>How much time to spend on a selected task before moving to a new task</td>
</tr>
<tr>
<td>Space</td>
<td>Where to work</td>
<td>How much space to work in</td>
</tr>
<tr>
<td>Equipment</td>
<td>What kind of equipment to use</td>
<td>How to arrange the equipment</td>
</tr>
<tr>
<td></td>
<td>What adjustments to make to the equipment</td>
<td>How much equipment to use</td>
</tr>
</tbody>
</table>

**STUDENT DECISION MAKING IN ENVIRONMENTAL ARRANGEMENTS**

A critical concern in the design of movement tasks is the amount of student involvement in the learning process. Students can often be part of the decision-making process when environmental factors are discussed. They may make decisions for themselves or be made to help make a group decision. Consider the possibilities presented in box 4.3 for student choice relating to environmental arrangements of a task.

When teachers make all the decisions relative to environmental arrangements, task content, and criteria for performance, the task is highly teacher structured and teaching becomes very direct teaching. When teachers begin to share these decisions with students, tasks become less teacher structured, and teaching becomes more indirect. Many beginning teachers assume that task structure is an all-or-nothing proposition. This is not true. Teachers need to learn to add and remove structure as needed in particular learning experiences.

Although it is true that some students cannot and perhaps will not ever work productively in more structurally unstructured environments, the concept of structure does not solely depend on the developed independent learning skills of students. Any learners inexperienced in an area of work will need more structure until a repertoire of correct responses for a situation can be developed. Appropriate decision making is a skill with carryover value from one area of work in the gymnasium to another. However, it is not independent of experience with the content.

The following example illustrates the importance of environmental arrangements in task design.

**Example:** A teacher of third-grade students has worked with students extensively in the gymnasium. During one of her class periods, she has students choose their own partners, move to an area of the gymnasium, choose a ball from within a range of choices, and work on a task involving throwing and catching. The students are able to work in this area without the need for long organizational periods during which they get partners or equipment. The teacher finds it unnecessary to use lines or more formal arrangements for the use of space. However, during the next class period, the teacher introduces some work in creative dance. The teacher introduces the idea of pathways in space with different body parts. She explains what a pathway is and sends the students off into their own space to practice. The students do not work productively. Within a few seconds, little work is taking place that can be described as productive.

The teacher’s problem in the second class period is one of structure. The task was a new one to the students and different from any experiences the students had encountered before. The students did not have a complete enough idea of appropriate responses to the task to be able to work independently with the content. The students in this situation could have profited from some initial experiences in which the teacher did the following:

- Chose the body part to be used
- Faced the task with verbal cues or instrument support
- Limited movement to personal space

The teacher could have then gradually removed aspects of the structure before encouraging students to work independently with the task.

The question of whether to highly structure tasks or whether to encourage student decision making is again a curricular decision. Students involved in the process are more likely to learn more than just psychomotor skills than those who are uninvolved in the process. When arrangements show some flexibility, they can potentially be made more appropriate for individuals. Some evidence exists that highly structured, teacher-dominated environments may be more efficient in producing more narrowly defined learning (Good, 1979). Highly structured environments will generally involve much time spent in organizational types of behaviors.

Teachers should operate at all points on this continuum, depending on what is appropriate for their objectives. The need for structure depends on the student’s competence and confidence with the task.