



Courtesy of Rachel Fournith

GUIDING QUESTIONS

1. Why will the curricular decisions teachers make necessarily be different?
2. Describe the instructional alignment triad. How does this impact teaching and learning?
3. Who are the stakeholders in the curriculum process?
4. What is the relationship between enjoyment and learning (gaining competence)?
5. What aspects of the community influence curricular decisions?
6. What is the formula for calculating the amount of time available for physical education? What is the relationship between time and student learning?
7. What scheduling options are available to provide sufficient time for learners to interact with physical education content?
8. How might scope and sequence be viewed differently when teaching toward standards?
9. How might technology advances impact curricular decisions in physical education?
10. What is meant by “backward design”?

Building the Curriculum

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Once teachers have come to terms with their own beliefs about teaching and learning, a programmatic philosophy has been developed, and the standards have been unpacked, these things will guide all curricular decisions, of which there will be many. How does a teacher, a department, or a school district go about designing a physical education curriculum that has its focus on learners and learning? Ideally, this process should be an inclusive K–12 collaboration with all physical educators playing a role so that ownership might ultimately guide implementation of a sound and progressive curriculum. Unfortunately, and realistically, this is often not the case. Typically, committees are assigned the task of visiting or revisiting the K–12 curriculum, and individual teachers and departments are consulted as the process evolves. The result is often a curriculum that focuses on activities rather than learning, and programs that are not sequentially developed across K–12, which frequently are not meaningful to the children and youth for whom they are intended. Often we see a **curriculum guide** compiled that is intended to direct what is delivered in the name of physical education, yet it includes specific objectives for every conceivable activity, and as a result becomes unmanageable and impossible to deliver within the time available. One of the problems that results from this practice is what many have noted as teachers setting out to “**cover the curriculum**” (Lambert, 2003; Siedentop & Tannehill, 2000; Tannehill, van der Mars, & MacPhail, 2015). Rather than focusing on student learning, the focus is on covering the content that has been outlined in the curriculum guide.

curriculum guide A formal document that identifies the objectives that students are to achieve in a subject area and the activities that will make up the content of the program.

“**cover the curriculum**” When teachers focus on teaching everything outlined in the curriculum guide rather than focusing on student learning.

How do we move from the standards themselves to developing a meaningful curriculum to be delivered to children and youth? Perhaps the most crucial response to this is the idea of instructionally aligning: (1) what we intend for students to learn, (2) how we assess to determine student success, and (3) what and how we teach and students practice. This idea is known

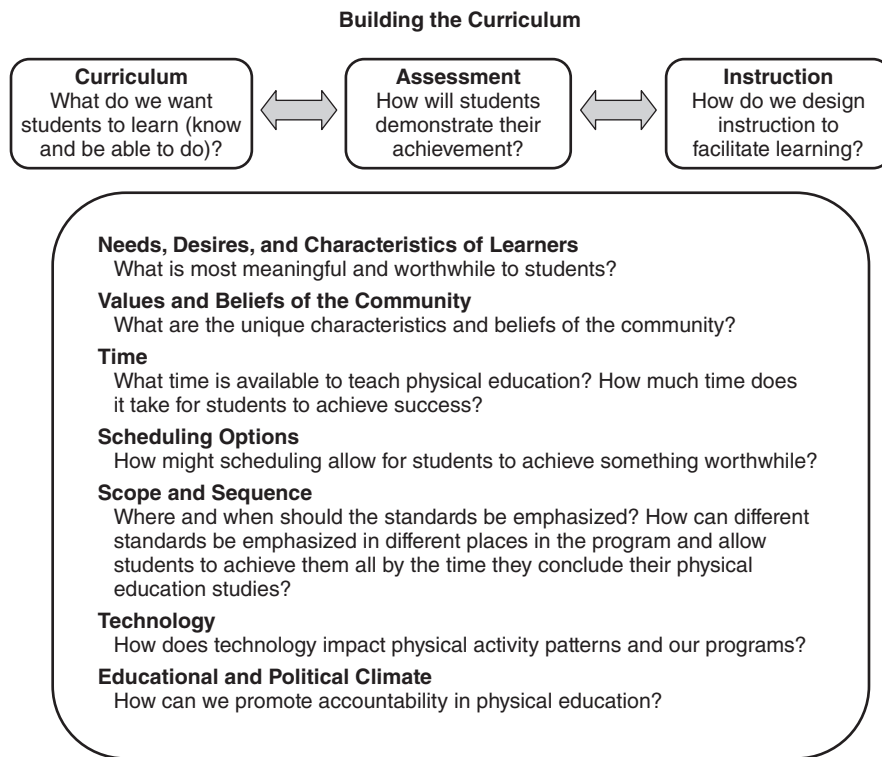


Figure 4.1 Steps in building the curriculum.

instructional alignment Alignment of what we intend for students to learn (goals), how we determine student success (assessment), how we teach, and how students practice (instructional strategies).

as instructional alignment with the three concepts forming a triad, somewhat like a three-legged stool; each is equally important. **Figure 4.1** outlines steps for building the curriculum and highlights the notion of **instructional alignment**. Instructional alignment is equally as important at the district curriculum level as

it is at the individual lesson level, because we know that the closer the alignment, the stronger the learning (Cohen, 1987; Walker, 1998).

Goals

The first piece of the instructional alignment triad is reflected in our goals for student achievement. Our programmatic values, beliefs, and philosophy guide us as we unpack the standards in an effort to identify what it is that students will learn in physical education. In a sense, our philosophy becomes the lens by which we focus our goals to reach the standards. We must keep in mind that standards reflect minimal expectations. Teachers can always go beyond the standards and expect more from students—usually resulting with students stepping up to the plate and being successful. Problems occur when teachers expect less from all students. Our programmatic

philosophy will help shape what these expectations will look like and how we might challenge students to achieve above the minimum.

Assessment

The second piece of the triad is assessment. Designing assessments that match the learning goal is critical. What do we want students to achieve, and how might they demonstrate success? Does all learning have to be demonstrated in the same way? No. Just as all students learn differently, so do they demonstrate learning in varying ways. It is up to the teacher to provide opportunities for students to demonstrate their success, their mastery, their competence, and their level of achievement. Success is measured by student achievement, and what better way than to allow learners to select the way they can most effectively and authentically demonstrate that achievement? Worth noting here is the difference between assessment of learning and assessment for learning. The former is what we are referring to here in terms of determining if learning occurred; the latter is when assessment is also a learning experience used to facilitate student achievement that also allows us to see if learning is taking place.

Instruction

The final piece of the triad is instruction. How do we design instruction to facilitate learning? It must be done intentionally, thoughtfully, creatively, and in an inviting and individually motivating way. As Parker and Stiehl (2015) note, “What is taught is inextricably linked to how it is taught.” Instruction is designed through a set of learning experiences that are facilitated through various instructional models and teaching strategies. These learning experiences must move learners through tasks that progress from less to more difficult, add complexity and diversity, and eventually lead to the meaningful performances that represent what you want students to learn. These tasks might involve skills/movements that are performed statically or dynamically, have increased numbers of movements, cause learners to move alone or with others, or require modified equipment to change complexity.

Curricular Considerations

Teachers will need to collectively make curricular decisions about the type of physical education their program will deliver to their students, to allow them to meet the standards and become physically educated individuals. Will the curriculum and instruction decisions teachers make always be the same? No. Not all children and youth must learn the same things, through the same learning experiences, nor should they be required to demonstrate what they know and are able to do in the same way. Teachers might better ask, “What are the important outcomes that I want these students to gain from this physical education program that will lead to achieving the standards set for physical education?” In order to reach these outcomes, teachers must discover the needs, desires, and characteristics of their learners; recognize what they value about teaching and learning; come to understand factors such as the values and beliefs of the community;

consider how time constraints and scheduling options bind their decisions; recognize how technology has impacted education; and be informed about educational and political forces that influence students, teachers, and curricular decisions.

Needs, Desires, and Characteristics of Learners

From our perspective, the primary stakeholders in the curriculum process are the students and the physical education teachers. This view is based on the fact that teachers are the content experts, and the students are those for whom the curriculum is designed. Together these two groups actually “live” the curriculum. However, as teachers, we must be cautious in determining what we think learners need in order to reach the standards without consulting them about their interests, identifying their learning styles, understanding the life issues with which they must contend on a daily basis, and a host of other factors that will impact their learning.

How do we go about identifying the needs of our learners and using the information we garner to inform our decisions? Peters (1988) suggests we listen: listen frequently, carefully, and systematically, listen for facts, feelings, and perceptions. What are we listening for, and how will we recognize it when we hear it? Often adults—including teachers—don’t listen to children and youth as much as we could, and miss some of what might inform us about their needs. Beyond listening, observing student performance, and identifying where they struggle, discovering how they spend their time away from school, talking with parents to gain a different perspective on a young person’s life, conducting surveys and needs assessments, and assessing performance in classes are all ways to identify learner needs. Providing learners the opportunity to delve into their own physical activity experiences and those of their family, school, and community might be fostered through the Cultural Studies curriculum (O’Sullivan, Kinchin & Enright, 2015). As we plan for learning, we might think of students’ needs as the gap between the skills and knowledge they currently have and can apply, and those we wish them to possess. The key is to fill that gap through meaningful and worthwhile content that is engaging to learners. Recently, there also have been suggestions of working collaboratively with young people to let them take a role in the design of their own curriculum and learning experiences (Enright & O’Sullivan, 2010; Howley & Tannehill, 2013).

During her student teaching, a preservice teacher was frustrated that her pupils were not cooperative, seemed disinterested in taking part in the activity, and were basically ruining her lesson. When asked if the lesson was exciting, challenging, or relevant to the students’ needs and interests, her response was, “Probably not.” When asked if the lesson was designed for students to be actively involved in making their own decisions or choices, her response was, “No.” When asked if she would want to take part in the lesson if she were a student, she responded, “Not really.” So, why was she surprised that her students chose mutiny?

We are not suggesting that a curriculum be based solely on what students want to do. What we are suggesting is that teachers find out what is most meaningful and worthwhile to students. What is exciting to them? Which activities do they choose to take part in outside of school? Do they prefer to work alone or in groups? Are they competitors or recreational players? Are they interested in the out-of-doors, or do they prefer fitness or rhythmic-type activities? Do they want

to dance or play games? Do they have a desire to discover more about themselves and their family involvement in physical activity? Teachers need to intentionally design programs that allow students to participate in a preferred activity that will motivate them to persevere in their efforts to improve and develop skills, knowledge, and understanding. At the same time, it is important to introduce students to new activities that they might eventually come to enjoy and even prefer. Too often we see the same physical education being offered year after year, despite the changing needs and interests of students. Common sense tells us that a third grader enjoys different activities at different levels of participation than a tenth-grade student. As Lambert (2003) states, “Although we certainly want students to enjoy what they are doing—why else would they be motivated to try or persist—our primary goal should be that they enjoy and engage in something worth learning” (p. 131).

Sagor (2002) suggests that we all possess five needs and the inherent desire to satisfy them. He goes on to explain that satisfying these needs will result in a full commitment to an activity or event. The five needs are as follows:

- Need to feel competent
- Need to belong
- Need to feel useful
- Need to feel potent
- Need to feel optimistic

He describes how these needs were satisfied through activity by a group of skateboarders. As they achieved mastery of their skateboard skills, their sense of *competence* developed, they recognized the link between their hard work and their success (*potency*), and acknowledged that to continue to be successful they needed to continue to “put in the time” (*optimism*). These skateboarders became affiliated with and members of a group who used a common language and wore distinctive clothing (*belonging*), and through sharing experiences and helping one another in learning new skills and achieving success, they developed a sense of *usefulness*. The message for us to draw from the experiences of these skateboarders is to design curricula that will meet students’ needs in motivating and challenging ways. Only then will they be willing to commit themselves to excelling at learning, and develop the desire to persist at trying.

Growth and developmental characteristics of learners are critical considerations for curricular design. When determining teaching practices that are developmentally appropriate for all children, we must consider each child individually. We must examine their changing needs and abilities, their body composition and size, their physical activity patterns and fitness levels, their previous experiences, and their levels of skillful movement. Resources to guide us have been developed by the National Association for Sport and Physical Education (NASPE) and are thoroughly outlined in a series of documents that can be accessed on the NASPE website. These include:

- QPE Kit—Quality Physical Education Standards and Guidelines; elementary, middle school, and high school packages
- Opportunity to Learn Guidelines

- Appropriate Instructional Practice Guidelines
- Concepts and Principles in Physical Education: What Every Student Needs to Know
- NASPE Assessment Series

Diversity among the student population in U.S. schools is growing annually. We see this diversity in racial and ethnic backgrounds, religious beliefs, economic and social class distinctions, skill and fitness levels, students for whom English is their second language, differences in learning styles, sexual orientation, motor and cognitive disabilities, and body size and composition, to name a few. In recent years, teachers have become more conscious of and more concerned with providing learning opportunities for all children and youth who attend our schools. Timken and Watson (2009) provide teachers with ideas on how to reduce the achievement gap among American youth.

Values and Beliefs of the Community

Although the learners are the primary benefactors of a curriculum, it is crucial that we recognize that others can inform our decisions and provide us with a broader, and perhaps clearer perspective of life in a given school district, and the implications this has for curriculum development. For example, understanding the unique characteristics of a community will help us recognize the beliefs and values of those who directly influence the school district and its programs. Do they support health and physical education? Do they believe our content is an integral part of a child's total education? Are there ethnic, religious, or cultural beliefs that will impact our curricular decisions? Are there recreation programs within the community that might support programmatic efforts? Is the community located in a region that has access to specific venues (e.g., lakes and rivers, walking or hiking trails, bikeways, bowling lanes, tennis courts, swimming pools)? Are there neighborhoods that require bus transportation, and therefore limit student access to after-school activity designed to support physical education program options? Conducting a systematic analysis of the community and identifying factors such as economic and physical resources; the ethnic, religious, and educational backgrounds of the residents; social and recreational opportunities available; and political forces that impact schools will provide pertinent information to consider when designing the curriculum. O'Sullivan, Tannehill, and Hinchion (2012) describe a school ethnography assignment based on an in-depth analysis of the school and community and interpretation of the implications for their teaching practice.

Not only should physical educators consult the community about the beliefs and values they want youth to acquire, but we must also educate them about "best practice" in physical education. Again, the NASPE website has an abundance of materials to guide us in educating the public, from position papers to teaching tools and from state examples to advocacy plans. Many in the community did not like physical education when they were growing up, and continue to believe it is not worthwhile. Others believe physical education should be exactly what it was in the past: tradition built on exercise and restricted to sport. It is our responsibility to help the community understand what we are attempting to do in physical education, the goals

and standards that guide our programs, how we intend to facilitate students achieving those standards, and how this links to what is important and relevant to children and youth. For example, one middle school teacher introduced disc activities (ultimate, freestyle, field events, golf), and was told by the administration and parents that this was not appropriate content for physical education. “These are activities that are done in parks on weekends and aren’t educating students,” they said. It was up to the teacher to help them understand that disc is appropriate, focuses on learning motor skills, and will in fact enable students to achieve one or more of the NASPE standards (Standards 1, 3, and 5). Using the games classification system (Almond, 1986), ultimate is an invasion game, whereas disc golf is a target game. If we build on the Teaching Games for Understanding philosophy (Mitchell & Oslin, 2015), our focus would be on students being able to transfer knowledge of what to do and when to do it across similar game forms. Instead of teaching ultimate, soccer, hockey, and basketball as isolated games with specific skills, we would help learners determine how to solve tactical problems that are common to all invasion games, which on-the-ball skills to use (specific to each invasion game), and the off-the-ball movements to support them. It would also be appropriate to point out to parents, administrators, and others in the community that if kids are playing disc activities on weekends, it would be terrific if *all* kids knew how, could be successful, and wanted to participate.

Time

As we consider the extent of what we have identified as significant for student learning in physical education, and the knowledge, skills, concepts, and attitudes it would take for students to achieve success and mastery, we might ask, “How will we have time?” A few years ago in the state of Washington it was suggested that it would take 24 years of daily interaction with every content area for a student to reach all of the Essential Academic Learning Requirements (EALRs)—the state standards. We know that our children and youth do not have this kind of time with our content. In physical education we often have 30 minutes once a week at the elementary level, which of course equates to 2 hours per month, or 18 hours per year, hardly enough time for students to reach all of the standards. Similar time crunches exist for physical education at the middle school and high school levels. So, teachers must make choices on which standards to emphasize at different grade levels, and consider which expectations their students can conceivably reach in the time available, keeping in mind that our focus is on student learning as opposed to covering the content.

Teachers must calculate the amount of available time they have to deliver content, provide students practice of the content, and assess student performance and achievement. Across the district and at each level, the amount of time available will be quite different because requirements for physical education, class length, and loss of time due to circumstances outside of our control all vary. Using the simple formula of multiplying the number of class sessions offered per week times the number of weeks in the school year times the length of each class session provides an estimate of the time available for instruction, learning experiences and practice, and assessment of learning.

$$\begin{aligned}
 & \text{Number of class sessions per week} \\
 & \times \text{Number of weeks in school year} \\
 & \times \text{Length of the each session} \\
 \hline
 & = \text{Estimate of time available}
 \end{aligned}$$

However, this is just the first estimate; we also must take into consideration those times when we lose physical education time due to such uncontrollable events as assemblies, pep rallies, and teacher in-service days. Based on past experience, how much time might this be? It will vary, of course, yet we suggest that 8–10% of the available days will be lost. In addition, be sure that you don't count time allocated for dressing at the beginning and end of middle and high school physical education as part of the time available for student learning.

$$\begin{aligned}
 & \text{Estimate of time available} \\
 & \times 8\text{--}10\% \text{ of available days for loss of time due to uncontrollable events} \\
 & \times \text{Minutes for dressing at middle and high school} \\
 \hline
 & = \text{Available time for student learning in physical education}
 \end{aligned}$$

Once you have determined time estimates across the K–12 curriculum, you have a foundation upon which to base the program design and the distribution of content into this time framework. The key is to limit the scope of the curriculum to those activities that you really have time to teach.

Another issue related to time asks the question, “How much time does it take for learning to occur?” You might consider how long it took you to become skilled in your chosen physical activity. As you identify goals you want your students to achieve, lay out how much time you will devote to teaching it and allowing students to practice through meaningful and challenging learning experiences. It is often quite a shock to realize that you don't have time to teach all that you believe is important for them to learn, and that you must make still further choices.

Scheduling Options

Typically, physical educators do not have control over or a voice in scheduling decisions for their content and classes. At the elementary level, we see classes ranging from 30 to 45 minutes 1, 2, or 3 days per week, often a 4-day rotating schedule, and generally with students from one class passing those from another at the door as they enter and leave the gymnasium. This schedule is most often determined by classroom teachers in conjunction with the administration, and takes classroom teachers' planning time into consideration. At the middle and high school levels we often see students grouped for other content areas (i.e., math, music, language), with physical education scheduled to accommodate these specific course needs. More and more frequently we see six-period days giving way to three- to four-period days of 80- to 120-minute classes. This can be a blessing for our content area because it provides more time for student mastery, or it can

be a disaster when teachers do not use the extra time wisely. Two hours to be actively involved in physical activity might be considered too much for students to handle, so some teachers are offering the more traditional 50-minute lesson, extending time in the locker room, and then having students come in to the gym and wait. What an unfortunate way to handle what others have found to be a boon for physical educators and their programs (Bryant & Claxton, 1996; Shortt & Thayer, 1998–99). We see courses being designed within courses as a possible way to effectively use the blocked time frame. For example, some schools might offer 30 minutes of fitness followed by adventure or cultural studies. This would allow students to work toward Standard 3, and then move on to other standards through various curriculum models. Other teachers are using the extra time during a sport education season to facilitate students becoming more literate games players who are better able to play the game successfully, rather than just perform isolated skills, or for building a sense of affiliation within teams.

The key is to select an organizational arrangement that allows sufficient time for students to achieve something worthwhile in physical education. This suggests that we become knowledgeable about how scheduling is done in our settings, know who the players are that impact these decisions, determine how much time we need to allow students to achieve standards, and make certain that we are invited to participate in these administrative discussions. Only then will our content be considered based on its needs relative to student learning.

FPO

Scope and Sequence

What is a scope and sequence, and what might it look like in a standards-based curriculum?

The **scope** of the curriculum traditionally refers to the content to be taught, its focus, and the activities selected within the content. **Sequence** refers

scope Traditionally refers to the content being taught, its focus, and the activities selected within the content.

sequence Refers to the order or progression in which learning activities are presented.

to the order or progression in which learning activities are presented. As we select activities for our programs, we must consider those that will allow us to reach our goals, those that we have the facilities and equipment to deliver, and perhaps most importantly from our perspective, those that are meaningful, relevant, and worthwhile for our students. We must keep in mind

that not all learners will have the same desires, passions, interests, or goals. When teaching toward standards, our task is to help each student find a physical activity outlet that he or she will enjoy and have the skill to participate in over a lifetime. We must help students discover what it is they enjoy about physical activity: the competition, the group nature, the individual pursuit of competence, or whatever else motivates them. This prompts two questions:

*Should we deliver a **multiactivity program** where students experience short units of a variety of activities?* No, by providing a coherent and meaningful curriculum, our programs should

multiactivity program A program characterized by a wide variety of activities intended to expose students to physical activity options. Units are short in nature, often as many as 10–12 per year, with little time for students to become proficient in any one activity. The focus tends to be on students being active rather than on learning.

help students make informed and positive choices that might stay with them throughout their lives. The short units traditionally associated with a multiactivity curriculum do not allow students time to gain sufficient competence in any activity. We believe that competence will lead to success and that this success is critical for developing lifelong participation habits.

Should we teach only content and activities that students will use as adults? Some would suggest yes. It is our belief

that we should not get caught up in treating young people as miniature adults. Although we want them to be able to apply what they learn in physical education across their lives, we need to allow them to participate in, learn from, and enjoy activities they value as children and youth. For example, the likelihood of a young man skateboarding or playing rugby into adulthood is not strong, yet as a teenager, this might be an important outlet for him, and one at which he excels. Although some would argue that he has not gained a skill that he can carry over into adulthood, we would argue that he has gained a sense of accomplishment, has experienced success, and has achieved the knowledge that hard work and practice are necessary to achieve competence—all attributes that are surely worth learning. A young girl may not choose to play soccer when she leaves school, but during middle school this is an engaging activity during which she interacts with her peers and learns to be a supportive and enthusiastic team player. As an adult she may opt for yoga or distance running as an alternative that she enjoys. Teaching children and youth the process of learning through

activities they find enjoyable and meaningful will be our best effort at helping them choose to be physically active, and have the skill and knowledge to do so.

With a standards-based curriculum, scope and sequence can be viewed a bit differently. If the standards are what guide our design of the curriculum, then we might also view where and when the standards are emphasized as part of a program's scope and sequence. As you complete **Table 4.1**, identify where you think each standard should be emphasized, and hopefully as a group of district teachers you were able to discuss, negotiate, and come to agreement on a district perspective. You will see in **Table 4.2** how one group of teachers agreed on when the standards would be introduced and what the emphasis would be. Again, there is no correct response for where the emphasis should be placed—it will look quite different from one district to another. The key is to link your choices to what you value for students at specific levels, while at the same time making sure that students will become competent on all standards by the time they finish their physical education studies.

If our focus is on student learning and the specific needs of our learners, the activities and curriculum models chosen to reach the standards might vary among schools within a district as well (see **Tables 4.3** and **4.4**). Although every child and young person might have the opportunity to reach the standards, they may be given different options and opportunities due to the school setting, the facilities and equipment available, the resources in the community to support different options, and student interests. This would suggest that the sequence of learning activities might vary markedly within a school district. Is this appropriate? If choices were based on these five points (setting, characteristics and needs of learners, facilities/equipment, community resources, and personal interest of teachers and students), then we think so. As you will recall, students learn in different ways; have different interests; can learn and reach the standards

Table 4.1 Your Views on When to Introduce Standards Across Age Groups

	Standard 1:	Standard 2:	Standard 3:	Standard 4:	Standard 5:
	<i>Demonstrates competency in a variety of motor skills and movement patterns</i>	<i>Applies knowledge of concepts, principles, strategies and tactics related to movement and performance</i>	<i>Demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness</i>	<i>Exhibits responsible personal and social behavior that respects self and others</i>	<i>Recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction</i>
Early elementary					
Late elementary					
Middle school					
High school					

Table 4.2 Teachers' Agreement on When to Introduce Standards Across Age Groups

	Standard 1:	Standard 2:	Standard 3:	Standard 4:	Standard 5:
	<i>Demonstrates competency in a variety of motor skills and movement patterns</i>	<i>Applies knowledge of concepts, principles, strategies and tactics related to movement and performance</i>	<i>Demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness</i>	<i>Exhibits responsible personal and social behavior that respects self and others</i>	<i>Recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction</i>
Early elementary	Learns and experiences basic motor skills	Learns basic concepts and principles	Is physically active	Takes part in playing with others	Enjoys self-expression and playing
Late elementary	Applies motor skills to small-sided game play and modified activities	Links concepts and principles to motor skills and movement	Enjoys physical activity while learning fitness concepts	Experiences fair play and teamwork	Enjoys social interaction and self-expression
Middle school	Applies motor skills to a variety of like activities to learn transfer and begin to recognize personal choices	Builds on concepts and principles while coming to understand strategies and tactics of sport and movement	Participates daily; focuses on improving aspects of fitness	Displays respect, fair play, and personal responsibility for behavior	Begins to recognize values of physical activity
High school	Develops competence in chosen activities	Employs strategies and tactics while participating in game play; uses concepts and principles in design of activity plan	Designs and monitors physical activity and fitness plan	Takes responsibility for own behavior and learning in physical activity settings	Chooses to be active and able to share insight on why

through a variety of activities, learning experiences, and curriculum models; and can demonstrate their achievement in a variety of ways.

The new NASPE standards (2013) are accompanied by a guidance document for physical educators with a description of student expectations based on what a student should know and be able to do at the end of grade-level ranges. In addition, it identifies sample performance outcomes in the form of behaviors we might see students demonstrate as they progress toward achievement of the standard. We would like to emphasize that the sample performance

Table 4.3 A Cooperative View of Teachers' Views on How Curriculum Models Link to the Standards

	Standard 1:	Standard 2:	Standard 3:	Standard 4:	Standard 5:
	<i>Demonstrates competency in a variety of motor skills and movement patterns</i>	<i>Applies knowledge of concepts, principles, strategies and tactics related to movement and performance</i>	<i>Demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness</i>	<i>Exhibits responsible personal and social behavior that respects self and others</i>	<i>Recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction</i>
Teaching Personal and Social Responsibility				Through any sport, activity, or movement form	
Skill themes	Basic motor skills	Basic concepts and principles			
Adventure Education		Adventure concepts achieved through many activities		Adventure concepts achieved through many activities	
Outdoor Education	Activities in an outdoor, natural environment		Physical activity through outdoor activities		Enjoyment and self-expression through outdoor activities
Teaching Games for Understanding		Applied to any sport or game			
Sport Education	Applied to any sport/team activity			Through any sport/team activity	Through any sport/team activity
Fitness and wellness			Through most movement forms, sports, and activities		Health aspect through most movement forms, sports, and activities

outcomes are just that, *samples*. They do not represent a comprehensive list of what students should know and be able to do. They merely represent a “starter kit,” and it is up to the curriculum committee to decide the performance outcomes that will be appropriate for students in that community to meet the content standards and how they have been unpacked to meet the specific context. How you use these materials will depend on what you have learned about

Table 4.4 Your Views on How Curriculum Models Link to the Standards

	Standard 1:	Standard 2:	Standard 3:	Standard 4:	Standard 5:
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Teaching Personal and Social Responsibility					
Skill themes					
Adventure Education					
Outdoor Education					
Teaching Games for Understanding					
Sport Education					
Fitness and wellness					

yourself, the students, and the community, and what you have available in your own setting. You and your colleagues will outline what your own students will be able to do at different points along their journey through your physical education program.

Technology

In our society today, technology changes daily, and these changes are perhaps more difficult for adults to comprehend and apply than for children and youth who are growing up with digital media as a part of their daily lives. Young people are spending more time interacting on social networks, video gaming, using iPads to access information, and using mobile phones to both communicate and take pictures. For young people, technology has become a way to develop their identities, socialize, be creative, and maintain membership in a social group. It can be positive and productive, but in many cases has resulted in young people being less active than in past generations before technology became so easily accessible and critical to our lives. Unless young people are taught to be positive and safe users of technology, it can be used in inappropriate and detrimental ways (e.g., digital bullying, accessing inappropriate/unsafe sites). HuffPost High

School and iKeepCurrent have developed a partnership to explore digital citizenship and help young people become ethical and responsible digital citizens. They have established this partnership to include young people's voices because this is the audience whom it is intended to impact.

Young people are generally more computer and technology savvy than their parents and, in many cases, their teachers. The advancement of technology into our public schools has grown rapidly and continues at a rapid pace, yet applications in some educational settings are limited by a lack of teacher technology literacy, funding problems that prevent some school districts from taking full advantage of what is available, and issues with keeping up with such a quickly changing field. A number of years ago, physical education teachers gained access to a variety of technology tools to enhance teaching and the learning experiences of students, such as PalmPilots, laptop computers, heart rate monitors, digital cameras, pedometers, grading programs, and management tools, to name a few. Although these are still being used on a daily basis in many programs, they are no longer the latest and most up-to-date technology tools available. We now have wireless connections to the Internet in schools, visual analysis systems are becoming more common, and podcasts are becoming a part of classroom life as are social media and image makers. Almost all young people have access to a mobile device or iPad/Android tablet, which makes it easy to incorporate them into classroom use. There are applications for just about anything you are seeking, from body mass index (BMI) to heart rate (HR), from CoachPad to Video Coach, from Score Simple to The PE Geek, and from CoachNote to Metronome.

Software programs are available that allow teachers to track student progress, report grades to parents, and develop newsletters using desktop publishing, and electronic messaging systems provide teachers with opportunities to interact with colleagues, parents, and students. As we make curricular decisions, we must consider the impact of technology on physical activity patterns and behaviors of the future, as well as how it impacts programs today. There is much discussion over the last few years on the appropriateness of using video and exergaming activities as part of the physical education curriculum. Hayes and Silberman (2007) challenge us to think differently about the use of these resources as a means to motivate, increase understanding, and improve performance. Leight (2008) describes a blog as being similar to an online journal. She provides ideas on their use in physical education by sharing four types of blogs that can be employed: teacher communication, dialogue generator, student, and teacher.

Banville and Polifko (2009) share ideas on how to use digital video technology to record pupil performance with a system that allows them to immediately view and critique that performance. Digital media have the capacity to engage, motivate, and inspire young people and provide them with a means to improve their skill, ask questions, and seek insight on a replayable performance and gain instant feedback. For example, an iPad can be mounted on a tripod, and students can film themselves blocking an attack in rugby using the 10-second delay function. Students can then move to the monitor, view their performance, identify where they went wrong, and attempt the block again. Students might draw ideas from movement databases to help them design a dance performance and then use multimedia devices to create sounds, music, and lighting to enhance the performance. During a Sport Education athletics season, students might use electronic and digital recording, measuring, and timing devices to measure team performance in different events. The team coach might use video analysis of game performance and patterns of

play to determine how to support and assist his or her team. The ideas for use of technology go on and on—they only require teachers to investigate the options and gain skill in using them.

Implications for Instruction

As we suggested previously, it is difficult to separate instruction from curriculum. If instruction is not done well and has not been intentionally designed to facilitate students reaching specified learning goals, then we have not been successful in developing students who can meet the standards we have identified as most worth their achieving. Designing a curriculum to meet standards carries with it several instructional implications with which we should be familiar, including teaching the process of learning and backward design.

Teaching the Process of Learning

When we teach students the process of learning, they are actively involved; they pose questions and grapple with how to answer them; they move from a problem to be solved to gaining the knowledge, skills, and principles they need to solve it; and they realize how this new learning might be transferred to another situation (Lambert, 2003). As Lambert suggests, “content and facts follow concepts and principles” (p. 139) through an experiential process of learning.

Frequently, learning in schools is achieved through the teaching and practice of isolated skills and knowledge, which is not characteristic of how we live, and not as rich as it could be. We don't live with different aspects of our lives separated into boxes, but rather in a holistic way as a complete person. The standards may be viewed in just such a way. Although the standards are written individually they must be viewed as overlapping, interlocking, integrating, and holistic. We may emphasize one or another at different times, yet they must be pulled together and likened to an individual as a whole and complete person.

To intentionally plan for this depth of learning requires us to know where we are headed, what our intentions are for student learning, and what it will look like when students finish our programs. This is best achieved through curriculum design that is based on the principles of backward design (Wiggins & McTighe, 1998), because it “emphasizes what students should know and be able to do with what they know when they exit high school” (Lambert, 2003, p. 140).

Backward Design of the Curriculum

Backward design (Wiggins & McTighe, 1998), the outcomes approach (Spady & Marshall, 1991), and the design down curriculum process (Lambert, 2003) suggest designing from exit goals back toward the beginning, from where you want to go to where you start, from high school down to elementary school. Of course, the key is to then deliver back up, to teach forward toward the outcomes you have selected as the worthwhile knowledge and skills for students to achieve when they exit high school (**Figure 4.2**).

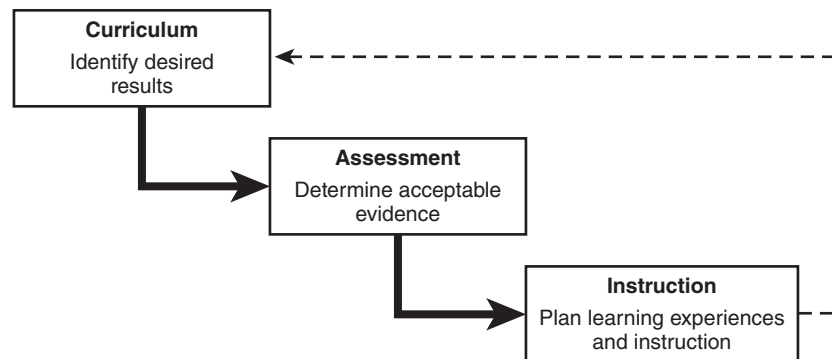


Figure 4.2 Backward design (down) and delivery forward (up).

Three questions to guide our work through the backward design process are:

What do we want students to know and be able to do as a result of participating in our programs? Answering this requires us to identify our intended outcomes that emerge as we unpack the standards. This is the important “stuff” of our content area, and the focus of student learning. Due to there being more content than students can realistically achieve, we must make choices on what we think is most important for students to achieve in physical education. These might be considered what Wiggins and McTighe (1998) call “enduring understandings” (p. 70), and represent what we want students to retain as they progress through our programs. Similarly, Erickson (2002) encourages us to teach the key concepts that will help students understand the relationships between significant learning experiences.

How will we know when students have been successful? This is where assessment comes in. What evidence will demonstrate that students have learned and achieved the standards? Identifying what will serve as acceptable evidence should be determined up front, and the assessments themselves designed prior to beginning instruction. This will ensure that there is alignment between what we want and what we measure.

How can we get students there in the most challenging and engaging ways possible? Instruction is the means for achieving the goals we identify as worth students’ knowing and being able to do (learning). Instruction must be intentional and purposeful, yet does not happen until after the learning goals and assessment are determined. Aligning instruction with goals and assessments is necessary if learning is to occur.

Lambert (2007) uses a three-legged stool as a metaphor to emphasize the importance of these three steps: curriculum, assessment, and instruction. If all three legs of the stool are given equal weight, the stool is solid. If any of the legs is removed or not attended to equally, the stability is removed.

Putting It All Together: Step-by-Step Questions as a Guide

Now that you have been introduced to the pieces of curriculum design, it is time for you to consider the goals, time and sequencing, instructional models and teaching strategies, and assessments that might be employed to teach a physical education program. Grappling with these questions and coming up with answers that all teachers can live with is necessary if the program is to achieve its intent.

1. What worthwhile and meaningful learning goals will meet the standard(s)?
2. How much time will it require to teach these goals at the respective grade levels?
3. How can students demonstrate success, mastery, or achievement of the learning goals, and ultimately, the standard(s)? What assessment evidence will be acceptable?
4. What is the most effective way to facilitate students meeting these goals/standards?
5. How can learning be achieved in interactive and holistic ways by teaching kids the process of learning?

As noted previously, instructional alignment is as important at the curricular level as at the instructional level. When making your curricular decisions, make sure there is alignment between what you believe is of most value and the instructional strategies and learning experiences you develop. Alignment of goals, assessment, and instruction will strengthen and reinforce student learning.

Summary

As we move through the curriculum development process, our decisions must be influenced by factors related to our beliefs about physical education, the needs of our learners, the opinions and perceptions of the community, and contextual issues related to time, facilities, and scheduling. We must keep in mind that curriculum development is about change. It is about improving what is and what has been. It is about moving into the future with learning experiences and assessments that are designed to move students toward filling the gap between what they now possess and what we have identified as worthwhile for them to know and be able to do in physical education. It is about making choices on how to best facilitate learning for our students in a coherent and cohesive way.

Key Terms

curriculum guide
“cover the curriculum”
instructional alignment

scope
sequence
multiactivity program

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