The need to promote physical activity among children and adolescents is great. It has been well documented that the obesity rate continues to climb and is a serious threat to our nation's health (USDHHS, 2008). Required time for physical education has decreased (NASPE, 2010), and students are not meeting the recommended levels of moderate to vigorous physical activity (at least 60 minutes every day). In order to promote physical activity among youth, students should be taught activities they enjoy, and have the opportunity to develop skill and proficiency. This approach might result in more individuals being physically active for a lifetime, and therefore, potentially reduce the risk and onset of many chronic diseases.

As educators consider skills, games, and sport-related content to teach in physical education programs, they must consider students' needs, interests, and abilities; participation outside of physical education class; the surrounding communities; and equipment and facilities. With that in mind, it is possible that the sport of "Ultimate" can meet each of those criteria.

If students are to enjoy physical activity and participate often, they should be taught activities that involve skill development opportunities, have the potential to be used in the future, and are enjoyable to play. In addition, as students learn the skills and begin using Ultimate for their own physical activity, they will continue to improve. This may lead them to find outlets for advanced game play. One look at college campuses around the country is all that is needed to realize that Ultimate is a popular sport among adolescents and young adults (Parinella & Zaslow, 2004). Consequently, students may spend more time playing the game, will be more likely to be engaged in moderate to vigorous physical activity that meets the National Standards for Physical Education (NASPE, 2004), and will have the opportunity to further develop their own level of cardiovascular endurance and physical fitness. The purpose of this article is to provide physical education teachers with the basic, but necessary, information to begin teaching an Ultimate unit in secondary physical education programs.

**Basic skills: Passing and catching**

There are two basic skills that students must master in order to be successful in the sport of Ultimate. These skills are passing and catching and are used continuously throughout the game in order to move the disc up the field in an attempt to score. These skills must be taught correctly and comprehensively in order for the students to enjoy a positive experience with the sport. Students must: 1) recognize the importance of learning the skills properly for more effective performance in the activity; 2) see accurate demonstrations to learn these skills correctly; and 3) be given ample time to practice throwing and catching before game play is introduced.

While different drills and activities can be designed to isolate individual skills, the skills of passing and catching can be used simultaneously. This strategy is used in a similar fashion when teaching basketball passing and catching, soccer passing and receiving, and softball throwing and fielding. Since students will be both throwing and catching the disc, the skills should be practiced together, after students receive some initial instruction on each skill, and as soon as students are ready for more advanced concepts and modified game play (e.g., Game Stages; Rink, 2010). The discussion that follows first provides information on effective passing and catching, then emphasizing use of these skills in modified game-like situations.

**Passing**

In physical education settings, students should learn two passing techniques: the backhand and flick.

*The backhand pass.* The backhand pass is the most basic pass in Ultimate, and is commonly used. Because of this, students should have plenty of practice time with the skill. Teachers may soon realize that many students have experience throwing the backhand pass (e.g., with a Frisbee in a recreational setting). However, students need to be taught proper grip and
threwing mechanics in order to improve their skills. Most students experience success with the backhand very quickly. Early detection and prevention of bad habits when using the backhand provides students with a more enjoyable experience and enables them to develop advanced skills more quickly.

The backhand pass is most commonly used when attempting to complete a pass to a teammate positioned on the student’s non-dominant side. The backhand is used for both long and short throws and can be very accurate and effective. A short throw may be anywhere from five to 15 yards, whereas long throws may exceed 30 yards.

To perform the backhand pass, students grip the disc with the thumb on top of the disc and their four other fingers along the inside lip of the disc (See Picture 1). Students establish their pivot foot, which must be the non-dominant foot. Students aim their dominant shoulder at the target and wind up their body, bringing the disc to their non-dominant hip. Students then uncoil like a spring, stepping with their dominant foot toward the target.

Advanced students can practice “stepping out” in order to simulate avoiding a defender. To properly step out, students step perpendicular to the target, instead of at the target, so that the back of their shoulder is facing the target. The disc is released later than a normal throw in order to successfully complete the pass to the target. The student snaps his/her wrist in order to place the maximum amount of spin on the disc. Emphasis should be placed on keeping the disc level throughout the throwing process. This will ensure that the disc travels on the correct trajectory toward the target. Advanced players can put slight edges on the disc by tilting it one way or the other. This makes the disc “bend” around a defender. To place an edge on the disc, tilt the disc downward slightly upon release (Studarus, 2003). (See Table 1)

The flick pass. The flick pass is the mirror image of the backhand pass and is primarily used to attempt throws to teammates on the dominant side of the thrower. Most students have limited experience attempting the flick and will be reluctant to perform it in game-like situations because they are more confident throwing the backhand. Yet the flick is important for successful game play. At first, students will most likely attempt to use the backhand to perform throws to their dominant side. This habit is detrimental because backhands to the dominant side of the thrower must cross in front of the defender and, therefore, are easily blocked. Students’ lack of confidence must be overcome by providing them with activities that require using the flick. Students can practice the skill in closed environments and drills to improve their flick before emphasizing its use in modified games. Once students have had sufficient practice with the flick, the teacher can begin to encourage consistent use of the flick in game play.

To perform the flick, students should first establish the pivot foot, which must be the non-dominant foot. The grip for the flick is noticeably different from the backhand grip. Students should grab the disc with their thumb on top of the disc, and their middle and index fingers running along the inside edge of the disc’s lip. Tell students to spread their fingers like a “peace” sign. The disc should be rolled back in the hand so that it is securely touching the webbing between the thumb and index finger (See Picture 2). Students should then step perpendicular to the target with their dominant foot and drop their dominant shoulder making an “L” with their throwing arm. This will contribute to more success by ensuring that their throwing arm is parallel to the ground. More advanced students can try “stepping out” to practice avoiding an imaginary defender. The disc should be released while the student snaps the wrist in order to put the maximum amount of spin on the disc. The pinky finger should finish toward the sky, and the throwing hand should finish low, in order to prevent the common mistake of the disc rolling over on its side and diving into the ground. There should be minimal follow through as if the student was snapping a towel (Froneke, 2005) (See Table 1).

Catching

Now that the most common throws have been explored, catching becomes the focus. In physical education settings, students should learn the pancake and
clamping catching techniques.

The pancake. The pancake is the most commonly used catch in Ultimate. The pancake catch (sometimes called the “alligator catch”), occurs when one hand is placed on top of the disc, and one hand is placed on the bottom of the disc, in order to secure an incoming pass. As the disc approaches the student, he/she should open both hands (like the mouth of an alligator), and then snap them together as the disc enters into the hands. The pancake catch is recommended for use when catching passes that are thrown between the shoulders and the knees of the receiver. Because of its reliability, the pancake catch should be the first catch that is taught.

The clamp. Students should catch the disc with the two-handed pancake whenever possible. However, when the disc is received above the shoulders or below the knees, it is not always possible to catch with two hands or by using the pancake catch. In those situations, the most appropriate method is to use the clamping catch. This catch is executed by receiving the front edge of the disc with the palm of one hand. Since the disc will be spinning when the disc touches the palm, the thumb and fingers should be brought together in a clamping fashion. When the disc is above the shoulders, the students should catch it with their thumb facing down. When the disc is below the knees, students should catch it with their thumb facing up (Studarus, 2003). Most students will naturally begin attempting to use the clamping catch with their dominant hand. However, it is essential that students develop this skill with both the right and the left hand since the disc will be thrown to both the right and left sides of their body.

**Basic Strategies**

Once students have had opportunities to practice throwing and catching, some basic strategies can be taught so they truly understand the purpose for the different throws and catches. In addition, they can begin putting their newly learned skills to use, creating an enjoyable and more physically active environment. After students learn the basic techniques and have experience in modified game play, they will quickly realize that a “game plan” or basic strategy is needed for success.

Teaching strategies for game-like situations is one of the most challenging tasks a physical education teacher faces. However, using the four game stages can be a valuable tool in this process if physical educators plan their instruction using the framework that the game stages model provides (Rink, 2010). Many times physical education classes move directly from basic skill instruction to game play, often leaving the students confused and overwhelmed with how the skills can be used in the game. Also, skills often deteriorate in competitive game play. The game stages model compensates for this disconnect between skill and strategy to be bridged by providing the students practice in increasingly complex environments and modified games. The following suggestions below can be continually modified or adapted to meet specific needs of instruction in different physical education and physical activity environments. Since the strategies of Ultimate are similar to other "invasion games" (Studarus, 2003), numerous games and drills that are effective for teaching other sports can also be used.
to teach Ultimate skills and strategies. However, physical education teachers should always continue to reflect upon their teaching (Lynn, Castelli, Werner, & Cone, 2007), experiment with new drills, and revise old drills in order to discover what works best for the specific needs and interests of their students. These suggestions can be used as a framework from which a physical educator can build his/her Ultimate unit.

Stage One: Developing control of the object (Individual skills)
Students should be given several opportunities to practice throwing the disc with proper technique. The teacher should demonstrate and give students the opportunity to practice throws at normal speed with proper form. Accuracy should not be the primary focus for beginning students; correct technique should be the main emphasis. This will ensure that students begin developing a full, mature throwing pattern (Magill, 2007). This can be accomplished by throwing the disc against a fence, separating partners by several yards, or by simply using a throw-and-chase activity.

When students have practiced throwing with the proper technique and incorporating different speeds for one or more individual throws, the emphasis of skill instruction can move from force production and technique to accuracy. Activities can be designed for students to begin throwing at stationary targets (e.g., hula hoops taped to a fence or cones with a ball placed on top). It is also very easy to create fun, modified games using targets. The teacher can challenge students to make a certain number of throws into a target, create point systems that reward more precise throws, and organize students into partners or small groups and plan different application tasks. In these settings, students can demonstrate, record, and see clear improvements in their performance. When implementing target practice into a curriculum, maximum participation should be a major concern. Ideally, one disc for each student should be provided. However, two to one or even three students for each disc can be effective, as long as proper protocols for the rotation of equipment are established.

It is important to note that hard walls do not make good targets because they tend to damage the disc, which will shorten the lifetime of the equipment.

Stage Two: Complex control and combinations of skills
The “In Cuts” Activity. This activity is one of the most basic Ultimate formations. It is incredibly effective because not only does it teach throwing and catching while on the move, but it also exposes students to cuts used in game situations. Ideally, each group will consist of six students with three discs. The students form two lines (three students in each line), approximately 10 yards apart, facing each other. Three individuals in one line will each have a disc. The individuals in the line without the discs will cut diagonally toward the line with the discs and receive a pass. After a throw and catch attempt, the student will move to the back of the opposite line so that he/she will be ready to be the next “thrower” or “cutter” (See Figure 1). This drill can be modified to focus on any cut

<table>
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<tr>
<th>Table 2. Ultimate Rules</th>
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<tr>
<td><strong>The Field</strong> – A rectangular shape with endzones at each end. A regulation field is 70 yards by 40 yards, with endzones 25 yards deep.</td>
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<tr>
<td><strong>Initiate Play</strong> – Each point begins with both teams lining up on the front of their respective endzone line. The defense throws (“pulls”) the disc to the offense. A regulation game has seven players per team.</td>
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<tr>
<td><strong>Scoring</strong> – Each time the offense completes a pass in the defense’s endzone, the offense scores a point. Play is initiated after each score.</td>
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<tr>
<td><strong>Movement of the Disc</strong> – The disc may be advanced in any direction by completing a pass to a teammate. Players may not run with the disc. The person with the disc (“thrower”) has ten seconds to throw the disc. The defender guarding the thrower (“marker”) counts out the stall count.</td>
</tr>
<tr>
<td><strong>Change of possession</strong> – When a pass in not completed (e.g. out of bounds, drop, block, interception), the defense immediately takes possession of the disc and becomes the offense.</td>
</tr>
<tr>
<td><strong>Substitutions</strong> – Players not in the game may replace players in the game after a score and during an injury timeout.</td>
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<tr>
<td><strong>Non-contact</strong> – No physical contact is allowed between players. Picks and screens are also prohibited. A foul occurs when contact is made.</td>
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<tr>
<td><strong>Fouls</strong> – When a player initiates contact on another player a foul occurs. When a foul disrupts possession, the play resumes as if the possession was retained. If the player committing the foul disagrees with the foul call, the play is redone.</td>
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<tr>
<td><strong>Self-Refereeing</strong> – Players are responsible for their own foul and line calls. Players resolve their own disputes.</td>
</tr>
<tr>
<td><strong>Spirit of the Game</strong> – Ultimate stresses sportsmanship and fair play. Competitive play is encouraged, but never at the expense of respect between players, adherence to the rules, and the basic joy of play.</td>
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Source: http://www.upa.org/ultimate/rules/10simplerules

| Figure 1. In Cuts |
and throw taught in class. The teacher can easily modify this activity by changing the cutters' direction or by designating which throw should be attempted.

The “Fan” Activity: In this activity, students practice multiple skills at one time. After students have opportunities to learn and practice skills in isolation, placing students in authentic or game-like situations is warranted (Rink, 2006). The fan activity is an excellent example of a game-like activity that works on several different skills. To organize this drill, several sets of two cones should be placed about twenty yards apart, with a disc at one of the cones. If the students are new to Ultimate or are still at beginner level, the cones can be placed closer together for easier throws, providing greater success. With students working in pairs, one student should be placed at each cone. The student at the cone without the disc will make a diagonal cut to the left or right and toward the student with the disc. The student with the disc will execute a pass to the student making the cut. Once the student catches the pass, he/she will throw the disc back to the stationary student, return to the original cone, and continue with the drill, making a cut to the opposite side of the cone diagonally back toward the disc (Studarus, 2003). After a few attempts making cuts to each side, the partners should switch positions (See Figure 2).

Proper throwing, catching, and moving techniques should be emphasized during this activity. When the cut is to the dominant side of the thrower, a flick should be executed. When the cut is to the non-dominant side of the thrower, a backhand should be used. Proper cuts should also be emphasized. Students tend to flatten out their cuts, not coming back toward the disc. This should be discouraged because a flat cut is not as effective in game situations.

Stage Three: Basic offensive and defensive strategies
The “Knock It Off” Activity: This activity is excellent for teaching proper cuts, green space strategy, communication, and throwing accuracy. Divide students into teams of three or four. Set up a circle of cones with one cone in the middle of the circle and a ball balanced on top (e.g., tennis ball, softball, etc.). Place another cone 10 to 20 feet outside of the circle, designated as the check mark (See Figure 3). The rules of the game are fairly simple. Students play by the rules of Ultimate (See Table 2), but instead of trying to move the disc into an end zone, the goal is to knock the ball off of the cone. Any time there
is a turnover, the disc is walked back to the check mark and “checked back” into play by the team that gained possession. The disc must also be thrown in order to knock the ball off the cone. This rule forces the students to practice accurate throws while being closely guarded. Do not allow students to guard the cone with the ball, but rather guard players on the other team while they are attempting to knock the ball off the cone. A limit should also be set on how many students are allowed inside the cone circle at one time. For smaller games, ideally one student from each team is allowed inside the circle at a time. A turnover occurs whenever an advantage is gained by a team that has more than the allotted number of students in the circle. This rule forces the students to communicate as well as spread out and use the entire space available. After students have grown accustomed to the rules of the game, stop them and challenge them to refine their strategy. The teacher should ask students what is working and what is not, encourage them to communicate, and encourage cuts from the opposite side of the circle toward the person with the disc.

The “Quadrant Ultimate” Activity. This activity is excellent for emphasizing a certain length of pass. If students continually are making long throws down the field (not an ideal strategy), this game can require the desired style of play.

The field for Quadrant Ultimate is divided into sections about ten yards apart. However, just like a regular Ultimate field, there should be an end zone at each end of the field with a back line (See Figure 4). Field length can be modified to accommodate student participation, skill level, and personal preference. For this activity, the fewer the students or the lower the skill level, the smaller the field should be.

The rules for Quadrant Ultimate are exactly the same as a regular game of Ultimate, with one exception. The instructor dictates the distance of the throws. If short throws are desired, set the rules so students are only allowed to pass the disc to the next quadrant up field. If mid-length passes are desired, set the rules so that passes must skip a quadrant. If long passes are desired, require that passes must skip two quadrants. If the passes do not meet expectations, the result can be a turnover to the opposing team, or the students can simply return the disc to the original thrower for a “re-do.” Turnovers often slow the game down and frustrate students. Because of this, turnovers should only be used if the students are resisting making the correct quadrant passes. It is better to emphasize the importance of the pass length and to allow the student to retry the errant throw.

Quadrant Ultimate also can be modified to emphasize students using the full width of the field. The teacher can organize the quadrants length-wise and implement rules that no two consecutive throws can be made into the same quadrant (Figure 6). This modification forces students to move the disc laterally up the field.

Stage Four: Modified game play Small-sided games should be used extensively throughout the unit. However, “full field” games are a valuable part of an Ultimate unit. The can motivate students and give them the chance to apply the learned skills and concepts in larger settings near the end of the unit. They can also be an exciting culminating event if introduced in a tournament setting. Many students love to compete and enjoy playing with a team. In addition, full-field games introduce the students to experiences they may face in the future in organized settings. Full-field games can also be a teaching tool for the instructor. Sometimes introducing students to full-field games can help them realize that they have not yet mastered the skills required to play the game. Some form of game play should be included in every Ultimate unit. The game play used will motivate students and can be an excellent teaching tool for promoting teamwork on the field of play.

While a typical Ultimate game is 7 v 7, it is not necessary for a physical education classes to play games with teams this large. It is more beneficial to the students if teams are limited to five or fewer players. Using smaller teams allows for more opportunities to practice and promotes team unity. However, if the class is composed of 14 or fewer students, it may be appropriate to play one large game. This is usually not the case in a typical physical education class and, therefore, teams should be divided so that all students are touching the disc the maximum amount of times while still allowing for the execution of strategy and fluid game play. The eventual goal is to allow students to experience complex game play in a positive manner while implementing skills they have learned throughout the class, so that they may develop an appreciation for the sport.

Summary Effective implementation of a skill-based unit will enable students and teachers to quickly associate Ultimate with enjoyment, teamwork, and health-enhancing cardiovascular development. The skills and activities described can assist secondary physical education teachers when planning an Ultimate unit that can clearly meet and/or reinforce one or more of the national standards (Baccarini & Booth, 2008).

Based on this concept and the potential for skill development, increased levels of physical activity, and focused
efforts in the affective domain, physical education teachers in secondary school settings should consider Ultimate as a unit in their curriculum. The benefits students can receive through participation in the sport may contribute to their overall health, wellness, and enjoyment in physical activity settings.

References

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