PEER-REVIEWED ARTICLE

The Nuts and Bolts of Adventure-based Learning: From Brief to Debrief and Beyond

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ABSTRACT

Adventure-based learning (ABL) is a term used to describe a curriculum model that uses experiential activities to help students practice and develop social or life skills (Cosgriff, 2000; Dyson & Sutherland, 2014). This type of curriculum can be used within K-12 physical education (PE) to promote the development and eventual transfer of intrapersonal and interpersonal relationship skills (IIRS) for students (Cosgriff, 2000; Dyson, 1995; Sutherland & Stuhr, 2014). Some of the key features associated with ABL are the experiential-cooperative physical activities, the emphasis placed on developing IIRS, and the implementation of a reflective session (i.e., debrief). This paper will provide K-12 physical educators with basic principles and pragmatic methods/examples on how to implement ABL within PE. The authors cover two elements: (a) philosophy associated with ABL and (b) template for designing ABL content.

Adventure-based learning (ABL) is a curriculum model that emphasizes a holistic student-centered approach to help students work toward the improvement of personal behavior and social interaction (Dyson & Sutherland, 2014). What makes this curriculum model unique is the sequenced and structured experiential activities (e.g., ice-breakers, cooperative games, trust and problem solving activities) used to improve social development of students (Cosgriff, 2000). One of the key features associated with ABL is the implementation of a reflective session (i.e., debrief), which typically occurs after the physical activities are completed. This type of curriculum can be used within K-12 physical education (PE) to promote the development and eventual transfer of intrapersonal and interpersonal relationship skills (IIRS) for students (Cosgriff, 2000; Dyson, 1995; Sutherland & Stuhr, 2014). There is also good reason to believe that ABL could be used to build community, establish care and positive emotionality, and potentially lessen the likelihood of classroom bullying (Dyson & Sutherland, 2014; Stuhr, Sutherland, & Ward, 2013). This paper will provide K-12 physical educators with basic principles and pragmatic methods/examples on how to implement ABL within PE. The authors cover two elements: (a) philosophy associated with ABL and (b) template for designing ABL content.

Philosophy Associated With ABL

Synergistic Environment Conducive to Learning

PE should be a place where all students feel welcomed and are eager to participate. Through an ABL curriculum, the teacher creates an environment conducive to learning by incorporating cooperative activities that place high importance on physical and emotional safety, social inclusion, and equitable opportunity for all students (Stuhr & Baringer,

2005). The activities used within ABL are goal-oriented rather than competition-driven, and provide maximum opportunity for students to work as a team in order to reach the desired outcome. ABL emphasizes an emotional safe environment that promotes a "we" rather than "me" motto, while de-emphasizing a win-at-all-cost mentality. The curriculum requires students to practice expressive (i.e., what one says to others) and receptive (i.e., what one hears and understands) forms of communication. The use and potential development of IIRS within ABL make this curriculum ideal for teachers wanting to mote community within the classroom.

Embedded Cooperative Learning Elements.

Helping students to work with rather than compete against one another is arguably one key outcome associated with quality PE. The use of Cooperative Learning (CL) within physical education can help students develop social skills associated with teamwork (Dyson, 2001; Dyson & Casey, 2012). There are five elements typically associated with CL (Johnson & Johnson, 2009). These five elements include: positive interdependence, face-to-face interaction, group processing, use of IIRS, and individual accountability. Dyson and Casey (2012, pp. 3-4) have emphasized the use of the CL elements to promote many of the same processes and goals found in ABL.

- Positive Interdependence: Exists when students perceive they are linked to group members in such a way that they cannot succeed unless other group members do. In ABL the activities are specifically designed so that students can only accomplish the goal as a group, and allow each group the opportunity to be successful in reaching the goal.

- Face-to-Face Interaction: Head-to-head discussions within the group while engaged in the task. When looking ABL, the brief, activity, and debrief portions of the lesson provide opportunity for social interaction.

- Group Processing: Open dialogue related to the lesson content. The brief and debrief portions of the ABL lesson allow students to discuss their experiences and gain deeper appreciation of the IIRS.

- Use of Intrapersonal and Small Group Skills (i.e., IIRS): Student behaviors that allow easy communication between group members. The emphasis in ABL is the IIRS.

- Individual Accountability: Students taking on responsibility for completing their part in the task for their group. A "Challenge with Choice" philosophy embedded within ABL promotes full participation, while encouraging each student to push his or her limit.

Incorporating these elements has been shown to increase student social skills in the school setting (Dyson & Casey, 2012). In addition, using CL/ABL methods can help with group processing, such as a reflective session (Sutherland, 2012; Sutherland, Stuhr, & Ressler, 2014).

Template for Designing ABL Content

ABL Components: the Brief, Activity, and Debrief

Within ABL there are three essential components to consider when planning for and delivering a lesson: (a) brief, (b) experiential activity(s), and (c) debrief. The number, amount of time allocated, and methods used to deliver each of these three components may vary de-

pending on the instructional needs and student learning outcomes of the teacher. Thus, the following tips and examples should be used as a framework in designing an ABL curriculum that works within the reality of each unique school context.

A brief is an anticipatory set designed to help entice or "hook" the student into what can be experienced during the activities. The brief also provides a way to highlight a selected IIRS that the teacher wants to emphasize during the lesson. There are various ways to deliver the brief, such as through a quote, story, poem, picture, or even a video. A teacher can select a variety of mediums to present selected IIRS to students during the brief. In addition, teachers are encouraged to provide time for individual students to reflect on the brief (e.g., alone, paired, or whole class). Using a think-pair-share strategy allows opportunity for students to begin thinking about the IIRS before entering into the first ABL activity. Five minutes is a reasonable amount of time to allocate for the brief.

The experiential activities presented to students provide opportunity to work toward a desired goal and develop IIRS through social interaction. There are a variety of resources where these types of activities can be found (Frank, 2013; Panicucci, Faulkingham Hunt, Kohut, Rheingold, & Stratton, 2002; Rohnke, 2009). For a 50-minute physical education class a teacher could possibly cover as many as four activities or as few as one (including a brief at the start of class and a debrief at the end), depending on the type of activity, student grade and/or developmental level, pacing of the students during the activity, and how well the class is managed.

Though often overlooked, the debrief is arguably the most important component in helping students transfer their con-

structed learning in ABL to areas outside of physical education (Stuhr & Sutherland, 2013: Sutherland, Ressler, & Stuhr, 2011). The debrief should be designed to increase the students' inner awareness of the primary experience that occurred while engaged in the activity. In a 50-minute PE lesson, twelve minutes is a suitable amount of time to conduct a debrief (Stuhr, Samalot-Rivera, Ortiz-Stuhr, & Sutherland, 2013). However, the length of the debrief may vary depending on school context, teaching style, activities covered, and what occurred during the lesson.

The teacher can increase student connection and motivation toward participation in a debrief by making it a student-centered session. Nevertheless, conducting a successful debrief can be one of the most difficult instructional tasks for teachers to complete (Sutherland, Ressler, & Stuhr, 2011; Sutherland & Stuhr, 2014). To help facilitate a successful debrief a teacher can use props or instructional approaches to promote student engagement (Cain, Cummings, & Stanchfield, 2008). Here are three examples of props that could be used during a debrief session to help promote student-centered discussion.

- Web of Ideas – Using a ball of string, each student who responds/speaks holds onto a piece of the string and passes the remaining ball of string to the next speaker. Typically, after 5-7 speakers, the students have created a web with the string. Then, the teacher can ask the class to think about what this web represents in terms of the particular IIRS they are working on for the lesson.

- Pick-a-Postcard (2015). Spread these postcards out on the floor and have each student choose a postcard. Have the students sit down and si-

lently reflect on how their card represents a particular IIRS. Then have students share their response with a partner next to them. Finally, ask for volunteer students to share their response with the whole class.

- Chiji Processing Dice (2015). These novel dice can be used in the debrief process to help students discuss their experience in the activity(s). There are four dice. The control die is rolled to determine which person will speak. The other three dice are used one at a time and answer the what, so what, and now what questions involving the activity and IIRS. The what die helps students process what just happened during the experience. The so what die focuses on how students felt about the experience. While the now what die helps bring attention to how the students might use the lesson(s) learned in the future.

Another method that can help the teacher lead a student-centered debrief is called the Sunday Afternoon Drive debrief model (Sutherland, Stuhr, & Ressler, 2012). This model is an extension of Kolb's (1984) experiential learning cycle and has been found to be a valid tool in helping students value, develop, and transfer the IIRS to other areas of their life (Stuhr & Sutherland, 2013; Sutherland, Stuhr, & Ressler, 2014). The Sunday Afternoon Drive debrief model uses the metaphor of driving a car as a way to explain the debriefing process. When the teacher starts the debrief they take on the role of a co-pilot in helping the students drive the conversation toward a final take home message that is meaningful for the group. The co-pilot represents the teacher's role, as someone who will allow students to contribute significantly to the conversation. Within this model the teacher uses various strate-

gies to help create a more student-centered discussion that leads to a successful debrief.

- Who Sits Where in the Car represents where the students will sit during the debrief session. By having students sit in a complete circle the teacher creates a higher level of comfort, which promotes student-to-student conversation. Sitting in a circle is a non-verbal signal that the students are in control and are encouraged to speak.

- Choice of Vehicle represents the size of the discussion group during the debrief (i.e., pair, triad, or whole group). Having students discuss in smaller groups first, before moving to a whole class discussion increases student opportunity to be heard.

- Start the Car represents the first initial activity used by the facilitator to help participants start the discussion (e.g., crumple paper, quick whip, bouncing ball). Many of these reflection activities can be found in adventure education texts such as Cain, Cummings, & Stanchfield, (2008).

- Follow the Road represents the facilitator's ability to select key words or statements that hold the most potential for further unpacking (i.e., prompting participants to further discuss or explain certain ideas or comments being made during the debrief). For example, after a student has spoke the teacher may want to ask that student to elaborate or provide an example of what they are talking about in order to capture a deeper understanding of what the student is trying to convey.

- GPS Recalculating represents a way to steer the conversation back in

another direction. The teacher should always have back-up questions or other topics ready to use in case the conversation dies down, stops, or even gets off-topic.

- Nearing the Final Destination represents generalization of key topics of conversation. Here the facilitator wants to highlight the general message that has emerged from the conversations and perhaps get the students talking about possible strategies that helped the group be successful and/or hindered success. The teacher taking a few notes during the debrief process can be helpful in determining what were some of the more salient points of discussion.

- Final Destination represents helping the participants understand how best to incorporate or apply what was learned from the activity/debrief into their own lives. Here is where the teacher takes the general message of the conversation and tries to see if students can apply this topic to some area of their life.

For further ABL props, tips, and other resources related to the brief, experiential activity, and debrief please see Cain et al., 2008; Frank, 2013; Panicucci et al., 2002; Priest & Gass, 2005.

Examples of ABL Activities.

This section includes three example ABL briefs, activities, and debriefs. We used an adapted version of a template created by Stuhr and Baringer (2005) to provide a "blueprint" of the elements that should be considered when designing ABL content. Grade level and other contextual factors at the individual school site should also be carefully considered before designing and implementing ABL content. The example activities we provided are affiliated/aligned with the IIRS themes of communication, cooperation, and emo-

tional trust, yet the teacher can select among a variety of IIRS themes (e.g., helping others, willingness to take risks, increasing self-concept, conflict resolution skills) for students to practice and develop. For additional information regarding IIRS themes please see the Collaborative for Academic, Social, and Emotional Learning (2015) website at http://www.casel.org/social-and-emotional-learning/. We end this section by providing some ABL assessment examples.

1. Morphing (adapted from Frank, 2013)

IIRS Student Learning Outcome: The student will have an opportunity to demonstrate proper communication skills (speaking with and listening to another classmate).

Brief: Use a quote from Ralph Nichols to help students start to think about the importance of active listening: "The most basic of all human needs is the need to understand and be understood. The best way to understand people is to listen to them" (Leadership Now, 2015, p. 1).

Activity Description: Students try to win at the game rock/paper/scissors in order to morph from one character to another. Determine whether all students know the rules associated with rock/paper/scissors. Demonstrate the following characters associated with the activity: Egg (squatting down in a ball), chicken (hands under armpits squawking like a chicken), dinosaur (arms up, making roaring noises), superhero (flying though the air), supreme-being (arms crossed). Have the students show you their best impression of each character. The object of the game is to advance from the starting character (egg) up through the final character (supreme-being). Everyone begins as an egg. Find another egg and play rock/paper/scissors. The winner becomes a chicken and then goes on to find another chicken to conduct another round of rock/paper/

scissors, while the non-winner moves down one character (e.g., chicken moves down egg, dinosaur down to chicken, etc.). Unless you are an egg, in which case you remain an egg if you are a non-winner. Students can only challenge the same character that they currently represent (e.g., chicken versus chicken or superhero versus superhero, etc.). Keep working through all the characters. When you become a supreme-being you can only be challenged by a superhero. If the supreme-being accepts the challenge from the superhero then they will play rock/paper/scissors. The winner will become a supreme-being but the non-winner will become an egg. The teacher may stop the activity once someone becomes a supreme-being and start another round with everyone (except the supreme-being) starting back at an egg.

Equipment: Open space where students can walk/move freely.

Grouping: A class size of 8 or more.

Facilitation Tip: After 1-2 rounds, if you are working with a new group of students, have them start with a brief introduction (name and something about themselves) prior to performing the rock/paper/scissor. The emphasis should be placed on the IIRS of communication, rather than on who wins and becomes the supreme-being.

Potential Debrief Questions: How were you able to communicate effectively with other students? Were you able to actively listen when another classmate was speaking to you? What do you need to do in order to be a good listener? Why is listening important? Where else do you find listening to others important?

2. Marshmallows (adapted from Frank, 2013)

IIRS Student Learning Outcome: The student will have an opportunity to demon-

strate proper cooperation skills (e.g., being responsible for self and others by following the rules of the activity, sharing and listening to ideas/strategies, providing encouragement).

Brief: Short, creative animation on YouTube highlighting the importance of cooperation, found at https://www.youtube.com/watch?v=uL5mHE3H5wE (YouTube, 2015).

Activity Description: Tell the class they are one side of a hot chocolate river (use lines or ropes as boundaries). The hot chocolate cannot be touched. Students need to travel to the other side of the river using marshmallows that float on the hot chocolate. Students must follow these rules:

• If they lose contact with the marshmallow they lose that marshmallow.

• They must get as many marshmallows to the other side as possible.

• If anyone touches the hot chocolate the whole group must start over again.

Equipment: Small 8"x10" foam pads or rubber circle polyspots (one per student, these represent the marshmallows used in the activity).

Grouping: 8-10 students per group – but be careful to stress that they are all working together so it does not become a race between the groups.

Facilitation Tip: Start each group off with 12 marshmallows. After each successful attempt take 1-2 marshmallows away for added challenge.

Potential Debrief Questions: How did you make sure that people stayed in contact with the marshmallows and that no one fell in? Is this an example of responsibility and How so? What happened when a marshmallow was lost? Was it okay to make a mistake? How can you demon-

strate responsibility when you make a mistake in life?

3. Turnstile (adapted from Frank, 2013)

IIRS Student Learning Outcome: The student will have an opportunity to demonstrate proper emotional trust skills (e.g., displaying positive attitude when confronted by challenge).

Brief: Poem on positive thinking and remembering to surround yourself with positive people, by Edgar A. Guest, found at http://www.behappyzone.com/poems.html (Be Happy Zone, 2015).

Activity Description: The entire group needs to solve a problem and each person will take an active role in implementing the solution. Objective is to get everyone from one side of the rope to the other (including the rope turners at some point). There are five progressions/challenges.

• Level 1 – Everyone must get through the rope without it stopping or touching him or her. If the rope stops or touches someone then that person goes back to try again.

• Level 2 – One person at a time runs in, jumps once and runs out. Same consequence for stopping or touching the rope.

• Level 3 – People jump through in groups of two or three – run in together, jump once and run out. Same consequence for not being successful.

• Level 4 – Same as level 2 except that if anyone misses the whole group starts over.

• Level 5 – Same as level 4 except that every time the rope hits the ground a new person must be jumping. Touching, stopping, or no one in the rope means that group starts over.

Equipment: Long 15' to 20' rope.

Grouping: 8-10 students per group.

Facilitation Tip: Be sure to have students slow turn the rope. The rope should turn towards the group going through to allow for more success.

Potential Debrief Questions: How did you feel when you made a mistake? Did you or another student show emotional support when a group member made a mistake? Were you able to be supportive to others and if so, how? Did you say or hear any positive comments during the activity, if so what were they and were they helpful?

Assessment For IIRS.

ABL Assessment includes a combination of informal and formal measures driven by lesson and unit objectives. Commonly used informal strategies include debriefing, direct observation of expected behaviors, and formative checks for understanding during the lesson. Using a debrief session coupled with observation and formative checks allow the teacher to determine how students felt about the overall lesson, whether students worked well with each other, the level of success with a particular activity, or whether students were able to grasp and connect the IIRS to other areas of their life.

Formal assessments used within ABL include: T-charts, Y-charts, Sunday Afternoon Drive reflection rubric, cognitive test for the Hand of Fair Play, and The Body assessment (Dyson & Sutherland, 2014). A teacher can also use a written journal to document evidence of student learning/transfer with the IIRS. A journal is an excellent tool for assessing the learning outcomes associated with SHAPE America National Content Standard 4: The physically literate individual exhibits responsible personal and social behavior that respects self and others (Society of Health and Physical Educators, 2014). Student

journal entries can provide the teacher with deeper insight beyond what might be observable in class, but can be very time consuming for teachers to read and grade. Thus, the teacher may wish to select a few specific entries to read and/or grade to expedite the assessment process.

The use of a 'photo journal' can be a useful way to formally assess student knowledge of the IIRS. A photo journal is a unique way to capture IIRS in the form of a picture and corresponding narrative. This project-based assessment allows students to choose an IIRS that they feel strongly about, and a corresponding picture. Through written narrative the student will describe: (a) the IIRS, (b) how the picture is connected to the IIRS, (c) how the IIRS is related to their experience in ABL, and finally (d) how the IIRS is applicable in their own life. The photo journal can be used as a culminating authentic assessment for the ABL unit.

While assessment is important, it is not within the scope of this paper to go into depth on its implementation. Instead, this section included example assessment ideas a teacher could use within the classroom. For further information regarding ABL assessment see Dyson and Sutherland (2014).

Final Thoughts

PE should provide opportunity for continued development of skills associated with personal and social respect and responsibility (SHAPE, 2014). A case can be made that ABL is a viable curriculum model that teachers can employ in order to promote the opportunity for students to learn about, practice, and potentially transfer knowledge associated with social-emotional learning (Stuhr & Sutherland, 2013). There continues to be a growing body of literature highlighting the practices and social-emotional learning benefits of this type of curricular model (Stuhr & Sutherland, 2013; Sutherland et al., 2012; Sutherland & Stuhr, 2014). This paper adds to the existing literature by providing some of the more salient/basic principles that define ABL, while the corresponding examples and references offer pragmatic ideas of what ABL can look like for PE teachers. If one of the goals for PE is to create a caring culture that impacts positively how students feel about their experience, then ABL can contribute to this outcome.

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