Building Student Confidence: Capitalizing on Social and Emotional Skill Building in Environmental Education

by

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Project Summary

My love of spending time outdoors and my struggle to find a passion for science led me to a career in environmental education. Through 4 years of teaching in residential outdoor school programs, I noticed the impact that outdoor learning can have on the social and emotional learning of students, most notably building self-esteem, confidence, and independence through succeeding at new experiences outside of their comfort zones. Outdoor education has been shown through numerous studies to have a positive impact on social and emotional learning. At a time in which youth are increasingly struggling with issues of social and emotional wellbeing, this led me to explore the question: *how environmental education can best facilitate outdoor learning environments that foster the social and emotional skills necessary for building healthy self-esteem in students.*

To address this question, I developed a series of professional development training materials for environmental education programs to incorporate social and emotional skill building into curriculum, program structure, and teaching techniques. The trainings focus on four approaches to incorporating social and emotional learning goals directly into programming including social emotional learning, Maslow's hierarchy of needs, risky play, and adventure education.

Through my review of the literature for my capstone project, I focused on the impacts of environmental education, the psychology and child development associated with childhood mental health, and the identified four approaches to social and emotional skill development. Extensive research has continually documented the benefits to spending time outdoors and in nature including reducing stress and depression and increasing self-esteem, self-efficacy, overall mental health, resilience, and quality of life in children and young adults (Kemple et al., 2016; E. Mygind, 2009; L. Mygind et al.,

2019; Tillmann et al., 2018). Yet, children spend less time outside, engaging in independent activities, and with unstructured play time, partially due to a culture of risk avoidance and child safety, despite it never being a safer time to be a child (Children's Play Council, 2002; Côté-Lussier et al., 2015; Little & Wyver, 2008; Pellegrini & Bjorklund, 2004; Rivkin, 1995; Skenazy, 2021; Vincenten et al., 2005). Environmental education provides an opportunity for children to engage in nature and the outdoors and reap the social, emotional, and physical benefits that it provides. Environmental education and outdoor learning opportunities have been shown to improve academic achievement, increase critical thinking skills, and develop social and emotional skills – most notably confidence, independence, and leadership (Ardoin et al., 2018; Heras et al., 2020; Humberstone & Stan, 2011; Tiplady & Menter, 2021). The development of social and emotional skills, like those that can be gained through environmental education opportunities, influence children's perception of risk, self-esteem, relationships and interactions with peers which have substantial impacts on childhood mental health (Halpern & Figueiras, 2004).

To develop these professional development trainings I utilized a framework centered around effective features of teacher professional development compiled by the Learning Policy Institute that proposes that effective professional development incorporates many or all of the following features: content focused, incorporates active learning, supports collaboration, uses models of effective practice, provides coaching and expert support, offers feedback and reflection, and sustained duration (Darling-Hammond et al., 2017). With environmental education centers scattered across the county, serving wide regions of schools, and often located in remote areas, environmental education

centers have always thrived with open communication and shared resources between centers and educators. National organizations, such as the North American Association of Environmental Educators (NAAEE), the University of California's Lawrence Hall of Science's Better Environmental Education, Teaching, Learning & Expertise Sharing (BEETLES), and the Association of Nature Center Administrators (ANCA) are useful outlets for shared resources, knowledge, professional development, and curriculum. I modeled my professional development materials after resources provided by these organizations, so that the professional development materials that I have developed can be used independently by organizations and educators to run their own professional development trainings for teaching staff.

These professional development materials are designed to provide both broad insight to apply program-wide and tangible tools that can be utilized on the ground by educators without substantive changes to programmatic structure or curriculum. It is the goal of this project to provide educators with a substantial and concrete place to start incorporating social and emotional skill development more intentionally within their programming as well as provide them with the learning resources to take further steps. Environmental education inherently provides social and emotional learning to students, but through intentional integration into programming, environmental education can capitalize on its strength to have an increased impact on students' social and emotional learning and wellbeing.

Applying Social and Emotional Growth Goals to Environmental Education

A Professional Development Guide

About the Materials

These professional development materials were developed for the final capstone project for the completion of a Master of Arts in Education: Natural Science and Environmental Education from Hamline University. This project came from the culmination of an extensive review of literature in the fields of environmental education, elementary education, child psychology, and child development.

These materials are designed to be a shared resource within the environmental education community. Please utilize all aspects of the materials and share them as you see fit. If you have any questions, comments, or have feedback that you would like to be incorporated into the materials please do not hesitate to contact the author via email at lmccord01@hamline.edu.

Training Table of Contents

Facilitation Guide

Look Here For...

- Links to useful resources
- Facilitation tips
- Alternate activities
- Training outline & timing
- Recommended materials
- Key word definitions

Look to these arrows for specific tips and comments on the section that the arrow is pointing towards.

Using this Guide

This guide is designed to provide you with the materials and resources you need to effectively deliver these four trainings to a group of environmental educators. Each training contains a cover page with a summary, outline, and goals.

These materials can also be utilized for independent learning. While the activities are best carried out in a group, each activity and training can be done as an individual.

The bulk of the text is written as a script, but does not necessarily have to be spoken as one. It is designed to give the facilitator the information they need as well. Highlight key points from the text, but do not feel obligated to deliver all of the material as it is written. Feel free to shorten or change the method of delivery to one that suits your teaching style and your participants' learning styles.

The trainings are meant to be adaptable to your program, which means the time estimates may be variable depending on how much emphasis you give to certain activities. Give them as they are written or change them to suit your program better.

Many of the activities involve coming up with adaptations to existing curriculum and activities. Participants might find it helpful to be given time to practice these adaptations through practice such as peer teaching.

There are a number of additional resources referenced throughout the materials. These may be helpful to explore in preparation to give these trainings or useful to explore together as a staff after the trainings in order to delve deeper.

Breaks are not written into the trainings, however they are recommended for processing of information. Fit them in during natural transitions or when the participants need them. It is a great way to model some of the applications of material!

Let the Kids Run! Embracing Risky Play in EE

Training Outline

What is risky play? ~ 20 min

Activity: Mapping Your Risky Play Activities ~ 40 min

Why risky play? ~ 10 min

Learning From Nature Preschools ~ 20-30 min

Incorporating Risky Play ~ 15 - 60 min

Wrapping it Up ~ 10 min

Total Time: 2-3 hours (Length dependent on training emphasis and depth desired)

Resource Appendices

Examples of Risky Play in Common EE Activities

Examples of Risky Play Activity Hazard/Risk Management

Materials

- White Board
- Scratch Paper
- Writing Utensils
- Tables
- Samples of curriculum/ activities

Summary

Challenge and risk, especially during outdoor play, allows children to learn new skills, try new behaviors, and test the limits of their physical, social, and mental development. Risky play appears in many forms within environmental education and its further embrace and intentional execution can capitalize on the benefits that children receive from it. Its application can be tricky, however, especially in a litigious and risk-averse culture. Yet with careful consideration and using scalable models formalized in nature preschools and forest kindergartens, risky play can be capitalized further within environmental education.

This training will help educators fully understand what risky play is and why it is important. It will then help educators identify areas where aspects of their current program already fall within risky play and recognize methods of enhancing them as a learning opportunity. Additionally, it will provide space for educators to develop new ways to integrate risky play into their programming as well as provide concrete examples, teaching tools, and resources for further learning.

Training Goals

- Learn about the concept and application of risky play
- Identify areas of risky play in current programming
- Develop ideas for further integrating risky play into program
- Build tools such as framing and reflection to enhance learning from risky play activities
- Discuss ways to manage and moderate risk while still empowering students to practice responsibility, judgement, and independence

What is Risky Play?

Defining Risky Play

Activity: Create group mind maps or brainstorm a list on the board as a group of: "What do you think of when I say risk?"

Risky play is thrilling and exciting play that can include the possibility of physical injury in which the risk is a challenge or situation that the child is able to evaluate, separating it from dangerous play in which a child is not able to appropriately evaluate the situation. It is a voluntary experience that pushes the mental and physical limitations of the child, often by engaging in a new experience. There is some perception of uncertainty in the child of the outcome of the experience.

It may be helpful to write the definitions (see sidebar on right) of hazard, risk, risky play, and benefit-risk assessment in a visible place such as on a white board, or provide the definitions in a handout. These are defined by the Washington Outdoor Preschool Pilot Standards.

Discussion: Think of a time when you engaged in play or an activity that could be considered risky play as a child. Share in small groups, with partners, or as a large group discussion.

What do these instances have in common?

Risky play has been categorized into several categories: play at heights, play with speed, play with potentially harmful tools, play near dangerous elements, physically rough play, and play where children can get lost. Compare this list with the commonalities that the group came up with.

Hazard - a source of harm that is not obvious to the child, such that the potential for injury is hidden; or a source of harm that is greater than a child can manage to avoid.

Risk - a situation in which a child can recognize and evaluate a challenge and decide on a course of action, although there is the potential for injury. In this context, risk can be necessary to support healthy child development.

Risky Play - play that is thrilling, exciting and where there is a risk of physical injury. This includes play involving heights, speed, dangerous tools or near dangerous elements (e.g., fall into something).

Benefit-Risk Assessment - a process of identifying hazards and risky play elements in early childhood outdoor play and making plans to mitigate children's risk of injury while maintaining the developmental benefits for children.

Activity: Mapping Your Risky Play Activities

This activity will be carried out throughout the training in order to utilize existing instances of risky play in your programming in order to apply learning about risky play and practice conducting a benefit-risk assessment about the activity. It will highlight 1 or multiple activities (depending on group size), categorize the benefits and learning of the activity, identify the hazards, and create management plans for mitigating those hazards. Additionally, it will provide the opportunity to brainstorm ways that these activities could be reframed or conducted in order to maximize the social and emotional learning opportunities.

This activity is outlined step by step on the following page.

Activity: Mapping Your Risky Play Activities

Transition: Now that we have a clear picture of what risky play is, let's gather a list of risky play activities that students may already engage with in our current programming.

Step 1: Give the group 2-3 minutes and have everyone make a list of activities or instances in programming where students engage in risky play of some sort.

Step 2: Go around the circle, having each person share an example until all ideas are shared, skipping duplicate ideas. Write the examples on the board. After a time or 2 around the circle, it may be appropriate to ask if anyone else has any other ideas that have not been brought up.

Step 3: Split the participants into groups of 2-4 people. Have each group select an example from the list that they want to delve into and give them a section of butcher paper.

Step 4: For their example, have each group list specific benefits of the activity to students, define the risky play based on the categories of risky play, and identify potential hazards & risks of the activity to the individual and the group. Give groups 5-7 minutes.

After the group is finished, have them set aside their butcher paper for the moment—they will come back to it multiple times throughout the training. If time allows, have each group share what they came up with to the larger group.

Example: Free Exploration Off Trail

Categories: play where children can get lost & play near dangerous elements

Benefits:

- Build confidence in doing tasks alone
- Gain sense of responsibility & respect
- Agency to follow own interests and direction
- Increase comfort in nature
- Ownership in what they discover or learn
- Feel excitement

Risks & Hazards

- Getting lost
- Straying out of earshot
- Injury on uneven ground
- Encountering poisonous plants
- Feeling fearful about being off trail or alone

Suggested Materials

- Whiteboard
- Butcher Paper & Markers
- Tape

If your training is relatively small, or you are on a tight timeline, it may work better to choose one example as a group to address together

Alternate Variation

Give each group a specific curriculum from your programming to focus on. Have them identify areas of risky play that already occur within that curriculum. Have them engage in Step 4 for all instances of risky play in the curriculum or simply have them pick one example from their specific curriculum.

Why Risky Play?

Purpose of Risk in Childhood

Discussion: Thinking back to some of those risky activities as a child, what are some feelings, benefits, or skills you learned that you associate with that activity? Create a list on the board with what the group comes up with.

Engaging in adventurous activities that expose children to physiological arousal, fear, and uncertainty, children learn to cope with natural stress response in a healthy way, providing a buffer to heightened and clinical anxiety. Engaging in risky play and risk-taking supports children's overall wellbeing, including their social and emotional health. Success in the face of risk, uncertainty, and challenge promotes the growth of independence, feelings of competency, and increases the confidence in which children approach new tasks, Challenge and risk, especially during outdoor play, allows children to learn new skills, try new behaviors, and test the limits of their physical, social, and mental development. Risk-taking experiences and physical challenges have a documented impact on the physical development of children, including coordination, physical control, motor development. Organized sports are a great example of this that have long focused on the physical benefits of physical challenge and risk-taking. Physical achievement and self-efficacy that comes with participation and success in these activities can help to grow healthy self-esteem in youth.

Consider using a video clip in order to emphasize these points if you feel that you have been doing a lot of talking. Selected video clips are listed on the following page with the next activity

Besides the physical and indirect emotional benefit, risk-taking has a multitude of other benefits to the development of children, including direct social and emotional benefits. Learning to manage risk helps children to approach risky and uncertain circumstances in the future with the development of decision-making skills, problem solving, and perseverance. Additionally, dealing with challenging situations and managing risk successfully helps children to overcome fears and anxiety while helping to build a realistic picture of risk and safety. Dealing with challenge and risk also helps to build self-efficacy and independence in children, helping to build a positive self-image.

Activity: Mapping Your Risky Play Activities —Step 5: Have groups swap their butcher paper with another group and revisit the benefit list to see if they have anything additional to add.

Lessons from Nature Preschools

Nature preschools have been on the forefront of establishing risky play as a formal element of their programming. As a form of environmental education directed at young childhood, the implementation here can be used as a framework to apply risky play to environmental education programs directed towards elementary and middle school aged children that are age-appropriate.

Administrative Tip — Reach out to local Nature Preschools to gain advice on writing risk management plans and policies. They may provide useful insight in terms of decisions regarding insurance and liability.

Activity: Nature Preschool & Risky Play Video Learning

Risky Play Discussion by Canadian Childcare Federation & The Child and Nature Alliance of Canada: https://www.youtube.com/watch?v=mmlp5CuUmyU

A hour and a half long webinar about supporting appropriate risk-taking in children's play. Outdoor play experts, Laura Molyneux and Petra Eperjesi, provide helpful definitions, practice strategies or thinking through the different risks and benefits of various play types, and for including children in assessing risks and benefits. Useful to view prior to training.

17:45—24:43 Leveling risk, risk-benefit analysis, risk versus hazard versus likelihood

26:25 —33:05 Risk as a spectrum, mitigating strategies

35:53—41:10 Stoplight method of managing risky play situations

41:27—49:26 Educator role play on identifying and mitigating risk

49:49—1:03:10 Educator role play on risk assessment and including children in the conversation

Forest Schools and Risky Play by Marlene Power, Executive Director of the Child and Nature Alliance of Canada: https://www.youtube.com/watch?v=xGEitowfJUo

An 11 minute feature on a forest school in Ottawa with a focus (in the second half of the video) on risky play.

Activity: After watching one of the above videos or clips, have participants reflect in small groups. What are the major takeaways? What can we draw from this to apply to our own programming?

Activity: Mapping Your Risky Play Activities

Transition: Now that we have seen some facilitation techniques from nature preschools, let's take a look at our own programming to see how we already manage risk and eliminate hazards and look for ways that we can improve.

Step 6: Have groups return to their original butcher paper. For each risk & hazard they come up with, have them list ways that they are managed or eliminated. Write the following questions on the board for the groups to consider: Are any hazards unavoidable? Do any of your management strategies infringe on the benefits?

Step 7: Have each group share with the whole group what they came up with, giving opportunities for the entire group to add input and discuss what each group is sharing.

Step 8: Tape the butcher papers up on the wall or arrange them where they can be seen by everyone.

Step 9: Give the group 5-8 minutes. Have everyone take some time to read over the butcher papers on the wall and come up with some reflection questions or activities and activity framing ideas for the example activities that allow students to focus and reflect on the benefits of the activity.

Step 10: Going through the activities 1 by 1, ask for volunteers to share any reflection or framing ideas that they came up with for that activity.

Example: Free Exploration Off Trail

Categories: play where children can get lost & play near dangerous elements

Benefits:	Risks & Hazards	Mitigations
• Build confidence in doing tasks alone • Gain sense of responsibility & respect • Agency to follow own interests and direction • Increase comfort in nature • Ownership in what they discover or learn • Feel excitement	• Getting lost • Straying out of earshot • Injury on uneven ground • Encountering poisonous plants • Feeling fearful about being off trail or alone	• Instructor sets clear visual boundaries and has students repeat them and identifies a cue, such as a whistle, to return to the group at an agreed upon meeting place • Identify any plant or environmental hazards in the area that students may not be familiar with • Give students the option of working in pairs • Let students know where/how they can find you or an adult chaperone

Reflection Resources

Encouraging Student Discussion and Productive TalK

http://beetlesproject.org/resources/integrating-discussion-instruction/

Mind Pie

http://beetlesproject.org/resources/for-field-instructors/mind-pie-2/

Teaching and Learning: The Learning Cycle

http://beetlesproject.org/resources/for-program-leaders/teaching-and-learning/

Promoting Discussion

http://beetlesproject.org/resources/for-program-leaders/promoting-discussion/#1447702870437-ba804ab5-cb15

Social Emotional Learning Routine

http://beetlesproject.org/resources/for-field-instructors/selroutine/

Consider setting aside some time later in the day or during a follow up to practice facilitating the activities, reflections, and framing that came out of this activity. This can be especially helpful for newer educators.

Incorporating Risky Play

Into Curriculum

Discussion: Having mapped out risky play activities that are already in your programming, take some time with a partner or a small group to discuss areas of programming or specific curriculum best suited to incorporating new risky play activities or integrating tools to extend learning surrounding risky play.

Having mapped out risky play activities that are already in your program, this activity can be used to map out and generate ideas for integrating new activities, considering new ways to facilitate current activities, and establish focus and intent on integrating framing, facilitation, and reflection to maximize the social and emotional learning benefits of risky play.

Training Facilitator Note: While writing risky play into curriculum is a good place to start, training instructors in facilitation techniques, such as framing, discussion techniques, reflection activities, how to set specific guidelines for the risks and hazards that may be specific to your programming are also necessary. This guide has provided numerous resources for some of these techniques, but facilitation techniques are not the inherent focus of this training. Depending on the educators present, it may be appropriate to explore one of these resources as an example.

Depending on the audience of the training, this section may or may not be valuable to cover. It may be best suited for program coordinators or managers, however all educators may have useful ideas and good insight to share!

Into Program Structure

While much of a students time is spent engaging with instructors, environmental education programs have down time, transition time, meal times, etc. in which program policies may have an impact on a students' ability to engage in risky play. Oftentimes, supervision during these times is carried out by school chaperones or maybe other staff depending on the program. Program policies and rules regarding supervision, play, running, conduct, etc. may limit students opportunities to engage in risky play.

Discussion:

What aspects of program structure or organizational regulations have an impact on student risky play? Discuss in small groups and share or brainstorm as a large group. Write the ideas on the board.

Identify any of these ideas that have the potential to be altered to better support risky play. It may be helpful to map out the benefits, risks, hazards, and mitigations in order to determine if it is feasible. Regulations are in place for a reason, and benefits may not always outweigh the hazards, even if properly mitigated.

Wrapping It Up

Reflection Discussion

Discuss: In pairs or small groups, have the group discuss the following prompts then get together as a large group and share thoughts.

What was most impactful or useful to you about the training today?

Where do you see applying risky play into your teaching?

Going forward, what aspects of your curriculum, program structure, or teaching do you think could be most integrated with the application of risky play?

What questions do you still have?

As a training facilitator, much of these responses can be recorded to help you evaluate how the training went.

Resources for Further Learning

Let Grow School Programs

Let Grow is a nonprofit that targets K-8 school teachers and parents to provide them with resources and tools to provide children with opportunities to build independence, resilience, and confidence through a number of methods, including free play, which include similar themes as risky play.

https://letgrow.org/program/educational-resources/

Washington Outdoor Preschool Pilot Legislative Report

This resource provides the standards that outdoor preschools must meet in regards to risky play in order to be licensed. It outlines the pilot program's approach to risk, risky play, and protecting children, while outlining some standards for risk management policies.

https://dcyf.wa.gov/sites/default/files/pdf/reports/OutdoorPreschoolPilot2020.pdf

Examples of Risky Play in Common EE Activities

It's important to note that these established categories are physical risks, but other risks, such as social risks, emotional risks, and the risk to equipment are also to be considered. For example, working with someone new is a social risk for some students. Emotional risks, such as the possibility of failure or embarrassment are abundant in EE. Using delicate or expensive equipment can include the risk that it may be broken or lost. The elimination of all risk or perception of risk should not be the goal. Some level of risk and perceived risk is okay, and encouraged, but the student must be able to appropriately evaluate the situation, have the skills and information necessary to approach the situation, and have measures in place to prevent needless risk. Remember to ask, do the learning benefits outweigh the risk?

Play at Heights

- Ropes courses
- Group challenge course elements such as walls, wires, blocks, etc.
- Activities near edges such as cliffs, bluffs, or steep trails

Play with Speed

- Activities involving running
- Ziplines
- Rope swings

Play with Potentially Harmful Tools

- Flint and steel for fire making
- Chemicals for water quality testing
- Splitting wedges
- Flint knapping
- Rock hammers
- Rock skipping

Play Near Dangerous Elements

- Inclement weather
- Stinging or biting insects
- Poisonous, stinging, thorny, or itchy plants
- Holes, roots, branches, and other tripping hazards
- Wet and slippery logs or rocks
- Wildlife

Physically Rough Play

- Activities involving tag
- Group challenge activities that involve lifting, supporting, or other physical interaction

Play Where Children can get Lost

- Map and compass navigation
- GPS navigation
- Exploration in the woods
- Hiking on or off trail
- Solo walks
- Night hikes

Examples of Risky Play Activity Hazard/Risk Management

Navigation Activity Example

Give students the resources to approach the risk and the agency to voluntarily engage with itso that students do not perceive they are being put at needless risk. In an orienteering activity taking place in the woods, show students where they can find an instructor or other adult if they need help, give them the tools they need (map, compass, emergency whistle) and the knowledge of how to use them. Give clear boundaries that are easily recognizable and make sure students can recall them.

Giving students the option to choose different levels of difficulty can help build confidence in their ability as well as ensure they feel they are given an appropriate level of task. This may involve different tiers of activity that the pairs of students can choose from. For example, having options of a navigation course that is closer in and options that venture further away that students can choose from, can allow students to engage only in risks they are ready for. Risk tolerance and perception of risk can vary widely amongst students and student groups and instructors should be sure to cater risky play activities to the level of the students.

Remember what is a manageable risk to one student, may be a hazard to others. Always take into consideration the variation in individual students when structuring an activity. Have unsure students partner up with students who are more confident. It may be necessary to place an adult with a group for the first half of the activity or until the students group gains some confidence. Altering the activity to take place in an open grassland or field where students can maintain line of sight with you can be a helpful stepping stone to building confidence with navigating without an adult before transitioning to the woods where they might not be able to see the instructor at all times.

Camouflage Activity Example

The common environmental education game camouflage can be played in numerous types of environments with numerous environmental hazards. Evaluating what types of hazards are in that area and ensuring that students are aware of them are essential for them being able to properly manage that risk. Are there specific hidden hazards such as an icy patch, area with mole holes, patch of woods with stinging nettle that can be avoided entirely or is it sufficient to ensure your students are aware of hazards. This may depend on the physical ability and prior environmental knowledge of the students. Running during the game can carry risks of falling and becoming injured, but this could be moderated by choosing specific areas to play such as a prairie or an area intertwined with paths where there are limited tripping hazards. Has the group demonstrated good coordination and judgement about how to travel through uneven terrain? Is it slippery, muddy, or icy?

Having students hide in the woods does carry the risk of getting lost. Set clear visual boundaries, such as a path, edge of trees, edge of field, etc. and ensure students can identify the boundaries.

Social Emotional Learning: The SEL Framework

Training Outline

What is SEL?

SEL Framework and CASEL ~ 10 min

SEL Competencies ~ 5-10 min

SEL in EE

Applying SEL to Curriculum and Instruction ~ 30 min

Activity: Identifying SEL in Curriculum ~ 45-75 min

Applying SEL to Program Structure ~ 30-60 min

Wrap it Up

Reflect ~ 10 min

Total Time: 2-3 hours (Length dependent on training emphasis and depth desired)

Materials

- White Board
- Scratch Paper
- Writing Utensils
- Tables
- Samples of curriculum/ activities

Summary

SEL is especially useful to environmental education because of its continuity with school systems where children may have already been exposed to the system. Existing standards within those schools may help strengthen the relationship between the environmental education programming and the school curriculum. SEL is likely to be known to classroom teachers and has the ability to provide for more collaboration and connectivity between an environmental education experience and the classroom. Additionally, the established, researched, and formal framework provides a lot of resources that are already built for a learning environment and can be easily adapted to meet the unique circumstances and programs of environmental education. Environmental education has long taught activities, such as team-building and challenge courses, that have learning goals that fall within the competencies of SEL. Approaches such as fostering a positive learning environment for social and emotional skills is easy to integrate and compatible for most programs.

Training Goals

- Understand the SEL framework, core competencies, and settings
- Identify areas where SEL already exists in programming and reflect on ways to extend learning
- Discuss application of SEL to program structure

Important Note

While this training is meant to get you started, these resources are essential for long-term development of SEL practices into programming. They hold a wealth of information written by and for environmental educators.

BEETLES—Supporting Social Emotional Learning in Outdoor Science: http://beetlesproject.org/resources/supportingsel/

Grow Outside : https://grow-outside.org/

What is SEL?

SEL Framework and CASEL

Activity: Assess what the group already knows. Have the group partner up and discuss what they already know about social emotional learning. Have them jot down the important points. Come back together as a large group and have each pair share one or two things that they came up with.

The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines Social Emotional Learning (SEL) as:

The process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions.

CASEL was formed by a group of researchers, educators, practitioners, and child advocates in 1994 with the goal of building social and emotional skills in school. It grew out of work being done in a few schools across the nation by a small number of educators and researchers towards educating the whole child and focusing on social development. It was from this group in 1994 that the term SEL was created to describe the approach that CASEL takes towards teaching and promoting the teaching of social and emotional skills. Since then, SEL has been incorporated into schools across the country. All 50 states have incorporated SEL standards into preschool, and many also have SEL in K-12 standards as well.

SEL programs in schools have been shown to have a long-term positive impact on prosocial behavior, positive attitudes, and academic achievement as well as serve as a protective factor against issues such as conduct problems, substance abuse, and emotional distress. This positive impact is consistent across students populations of differing socioeconomic status, of differing racial and ethnic make-up, and foreign or domestic school locations

Discuss: Why might social and emotional learning be important? What life skills might students obtain from this type of learning?

It is important to distinguish between SEL and social and emotional skills – SEL is one approach to learning social and emotional skills compiled by the organization CASEL. SEL is a prevalent and well-known framework, with lots of resources available and thus a useful framework to draw on to apply to EE.

Facilitator Tip

Depending on your audience and timing, you may consider truncating some of the background information.

What is SEL?

SEL Competencies

The SEL framework is centered around five interrelated competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. These competencies can be taught or supported within four tiers of settings: classrooms, schools, families, and communities.

It may be helpful to have these definitions written on the whiteboard or posted on butcher paper on the walls of the room for easy reference.

Emotional Skills -

Self-awareness is the ability to understand one's own emotions, thoughts, and values and how they influence behavior across contexts. This covers emotional skills such as recognizing strengths and weaknesses, developing confidence and purpose, and experiencing self-efficacy.

Self-management is the ability to manage one's emotions, thoughts, and behaviors effectively in different situations and to achieve goals and aspirations. Skills taught through the self-management competency include managing stress and other emotions, setting and motivating oneself towards goals, and practicing self-discipline.

Social Skills -

Social Awareness is the ability to understand the perspectives of and empathize with others, including those from diverse backgrounds, cultures, and contexts.

Relationship Skills are the abilities to establish and maintain healthy and supportive relationships and to effectively navigate settings with diverse individuals and groups. This includes identifying social norms in different settings, communicating with and listening to others, collaborating effectively, developing positive relationships, resolving conflict, showing leadership, and seeking help when needed.

Responsible Decision Making falls at the intersection of social and emotional skills and is defined as **the abilities to make caring and constructive choices about personal behavior and social interactions across diverse situations.** This includes skills such as practicing reasoned judgment, anticipating consequences, and considering the impact of ones' choices on personal, social and collective wellbeing. These five competencies can be applied in numerous settings that are part of a child's education.

Useful Resource

CASEL's website has a great interactive visual that show the competencies and the settings. It may be a useful resource to show during this section or to replicate the visual wheel and have it posted in the room.

The visual can be found here:

https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/#social-emotional-learning

Activity: Identifying SEL in Curriculum

Transition: Now that we are familiar with the definitions of the SEL competencies, let's see if we can identify where existing ones might be within our current curriculum and activities.

Step 1: Break people up into groups of 2-3 and have each group select a specific curriculum or activity to focus on.

Step 2: Give the group 10-15 minutes to look through the curriculum and identify areas where SEL competencies are already being addressed. Have them classify the areas based on competency. Also have the groups identify a few areas they see as having potential to meet SEL competencies.

Step 3: Have the curriculum groups share the competencies that they identified with the whole group. Write examples on the board. What are some of the commonalities? Are there any trends?

This activity will be continued further on in the training. Have groups set aside their work for now—they will return to it shortly.

Applying SEL in EE Curriculum & Instruction

CASEL provides resources to apply SEL into classrooms. The classroom setting offers opportunities for similar methods to be transferred into an EE program setting. SEL integration in classrooms is often broken down into three components:

1. A supportive classroom climate

What does this look like?

This involves creating a climate where students feel emotionally safe, motivated, and challenged in a community of learners where they feel comfortable engaging fully and taking academic risks.

What are the challenges to doing this in your program?

EE programs are often short in duration, sometimes instructors only have students for an hour or two. This can prove challenging to build a learning environment where students feel comfortable. Students may be working with other students from different classrooms that they do not know and may be in an environment that is new to them.

What are some ways that instructors can build a supportive learning climate?

Focus on building rapport with students early. This may mean taking some time away from instruction to be sure to introduce yourself, learn names, show the students around their surroundings, and answer questions. Taking time to do an ice-breaker or a group challenge activity early, can help students get to know the instructor, their surroundings, and each other. Remember that having a positive outdoor experience is essential to having a supportive learning climate.

Find ways to build community within the student group. For example, have the students come up with a group name or discuss a community agreement for the duration of the program.

Structure activities to provide a sense of belonging and emotional safety. For instance, pay attention to how you group students up together. Note if there is an odd number of students in case there needs to

Applying SEL in Curriculum and Instruction

be a group of three. Are there students that seem to not know anyone in the group? Experiment with grouping students up in different ways. If there is a group chaperone who knows the students, you can always check in with them to see if there are any group dynamics to keep in mind when grouping students up.

Follow a student-centered behavior management approach. Make sure students know what the expectations are and set them up for success in following them. If students are used to a specific attention getter or behavior management strategy such as taking a break, utilize what is familiar to the students.

2. Integration of SEL into instruction

Provide opportunities for students to practice and reflect on elements of the social and emotional competencies, such as perspective-taking, collaborating effectively, and setting goals. This may not be the primary focus of the activity itself, but it is a intentionally woven throughout in order to strengthen and support learning.

Where are some areas where SEL could be integrated into instruction?

This could mean incorporating more partner and group activities that promote relationships, effective teamwork, and communication skills. Provide opportunities for students to reflect about their experiences too. If they set a goal in rock climbing, reflecting about how it felt to reach their goal or why goalsetting is important can further integrate SEL into instruction.

3. Explicit SEL instruction

Explicit SEL instruction provides dedicated time to focus on social and emotional competencies. Group challenge or team-building exercises is a common place this exists already within many EE programs.

Useful Resources

SEL in EE Resources—Note that these are wonderful resources with a lot of information. While this training is meant to get you started, these resources are essential for long-term development of SEL practices into programming

BEETLES—Supporting Social Emotional Learning in Outdoor Science

http://beetlesproject.org/resources/supportingsel/

Grow Outside —Field Practice

https://grow-outside.org/field-practice/

CASEL School Guides — Geared towards traditional classrooms, but still useful reference

Building a Supportive Learning Climate: https://schoolguide.casel.org/focus-area-3/classroom/a-supportive-classroom-environment/

Integration of SEL into Instruction: https://schoolguide.casel.org/focus-area-3/classroom/integration-of-sel-and-instruction/

Explicit SEL Instruction: https://schoolguide.casel.org/focus-area-3/classroom/explicit-sel-instruction/

Activity: Identifying SEL in Curriculum

Step 4: Return to the small groups and have the groups focus on the areas they identified as having potential. Give them 10-20 minutes to focus on 1 or 2 areas and write out some proposals for altering the activity, reflection questions, activity framing, and specific teaching techniques that would incorporate the SEL competency more strongly into that area. Share with the large group.

Extend this activity by having each group select a resource on the previous page (see sidebar) and explore it in order to develop ideas for the identified areas.

It may be useful to participants to practice some of these techniques through modeling in short teaching scenarios.

Applying SEL to Program Structure

While integrating SEL into curriculum is important, a lot of social and emotional learning happens in the time in between educational activities. Most EE programs have some sort of down time, whether it is lunch during a day program or time in the evenings in a cabin in a residential program.

Additionally, the community and climate of the organization itself, has a direct impact on the ability of the organization to provide a positive and supportive learning environment for visiting students.

Check out these great resources that deal with SEL in residential settings https://grow-outside.org/residential-setting/ and SEL in organizational contexts https://grow-outside.org/organizational-context/ that provide A LOT of tools, information, and resources about integrating SEL into the program structure

Activity: Identifying SEL in Program Structure

Following the same structure as the previous activity, split into groups and look at specific non-curriculum aspects of your programming. Examples of this may include:

Free time, move-in, meal times, evenings, day schedule, learning spaces, organizational climate, campfires, etc.

The depth and time spent on this activity may vary depending on the audience of the training.

Wrapping it Up

Reflection Discussion

Look back at what each group came up with at the beginning brainstorm of what they already knew about social and emotional learning. Then have students reflect through the following discussion.

As a training facilitator, much of these responses can be recorded to help you evaluate how the training went.

Discuss: In pairs or small groups, have the group discuss the following prompts then get together as a large group and share thoughts.

What was most impactful or useful to you about the training today?

Where do you see applying SEL most readily into your teaching?

Going forward, what aspects of your curriculum, program structure, or teaching do you think could be most integrated with the application of SEL?

What questions do you still have?

Optional Modeling: Incorporating SEL into this Training

Consider modeling an example of a SEL application throughout the training. While group discussion and reflection already do this to some degree, how can you as a facilitator model some of the concepts you are communicating? A journal, drawing, or reflection about a time in which participants felt they were in an especially supportive learning environment could be a useful way to get participants thinking. Consider how you might create a positive and supportive learning environment for your participants. You could introduce or conclude the session by facilitating a group challenge that focuses on teamwork, communication, self-awareness, etc. Lead a discussion after that touches on how all 5 of the core competencies may or may not be integrated into that activity.

Achieving More with Adventure Education

Training Outline

Adventure Education Learning Goals ~ 25 min

Decentering Perception of Risk as the Goal ~ 15 min

Optimizing Social and Emotional Learning ~ 45 min

Wrapping it up ~ 10 min

Total Time: 1.5 hours

Materials

- White Board
- Scratch Paper
- Writing Utensils
- Tables
- Samples of curriculum/ activities

Summary

Adventure education holds a lot of potential for building social and emotional skills. While its goals may not fit within science or history standards that are met by other fields of environmental education subject matter, the learning outcomes for social and emotional skills from well applied adventure curriculum can achieve impactful learning for students. Intentional activity framing and reflection can increase the learning gains of these experiences. This field within environmental education presents a great opportunity to build social and emotional skills and increase the confidence and independence of students.

This training will help educators reflect on how adventure education opportunities are utilized within their programming. It will then identify goals in adventure education that are helpful for building social and emotional skills. Through reframing activities to provide social and emotional learning outcomes, adventure education can provide tangible and valuable learning opportunities for students.

Training Goals

- Define adventure education
- Identify learning goals and outcomes targeting social and emotional learning that can be achieved through adventure education
- Build tools such as framing and reflection to enhance learning from adventure education activities
- Discuss ways to structure activities to provide opportunities for student input & decision making, autonomy, reflection, ownership, and responsibility

Adventure Education

Adventure Education Learning Goals

Adventure education is a part of environmental and outdoor education that focuses on the development of outdoor skills, outdoor activities, and team-building. Activities in this realm generally may not involve academic learning as their primary focus, although they may have components and learning goals related to academic learning such as math, science, or human history. Instead, adventure education has primary learning goals more associated with **learning skills, team-building, physical education, and building connection to the outdoors**. Common examples of adventure education include hiking, ropes courses, team-building activities, orienteering, canoeing, archery and rock climbing.

As you are going over this material, be sure to list the potential learning goals/ outcome on the board or a visible space. You will reference them throughout the training so it will be useful to have the already written up.

Discussion: What are examples of adventure education in your programming?

While adventure education has been a part of environmental education programs for many years, focusing adventure education learning goals towards having specific social and emotional learning outcomes could increase the impact that these activities have on students.

At its simplest understanding, adventure education deals with activities that involve some level of risk, danger, or uncertainty however more modern approaches to adventure education decenter risk/danger as the primary focus and, instead, target social and emotional learning outcomes.

While uncertainty and risk have benefits, participants also receive and seek other outcomes such as **achievement, excitement, social interaction, problem solving, and developing and practicing skills**. The engagement with risk in adventurous activities is not the goal, but rather outcomes such as the **enjoyment of the activity, connection with the natural world, and the feeling of mastery of skills, knowledge, and experience.** Adventure education operates in a very similar vein as risky play (Note: the training on risky play is a good accompaniment to this training).

Useful Resource

Outward Bound is an outdoor and adventure education organization the runs about utilizing social and emotional learning in the adventure setting. If you are interested in engaging more with this topic, consider checking out one of their training sessions.

https://www.outwardbound.org/programs/the-thriving-classroom/

Activity: Looking at the learning goals & outcome of your curricula.

Bring out some of the curricula for the adventure education programming in your program. Have participants review the existing earning goals/outcomes of the activities.

Partner/group up into small groups and discuss the following prompts:

How do they relate to the goals and outcome just discussed? What are similarities and differences between them?

In your experience facilitating the activities, what other learning outcomes do students achieve that may not be the explicit focus of the activity?

Return as a large group and share some of the ideas generated in the pairs of small groups.

Decentering Perception of Risk as the Goal

While adventure education involves some level of risk or uncertainty, decentering risk and the perception of risk as the primary goal of the activity allows for not only a more positive and supportive learning environment, but also allows social and emotional learning outcomes become the focus.

Adventure education can target social and emotional learning outcomes with activities that are shaped around **prioritizing student agency, providing a constructive level of uncertainty** (this topic is covered in more depth with the training on risky play), **building and applying skills, and engaging in authentic learning environments.**

The perception of risk and uncertainty in adventure education should be mitigated in order for students to be able to focus on these more specific goals. For example, in a rock climbing activity, instructors should take measures to not only ensure the safety of participants and mitigate the risk of the activity, but also allow the students to know this is happening. This allows students to feel the exhilaration of the experience, while having the knowledge that they are engaging in the experience in a safe manner. The goal is not to eliminate the risk/ uncertainty entirely, put the student at risk, or to have the student think they are being put at risk, but rather to allow the student to have

an experience in which they feel excitement, accomplishment, and a constructive level of uncertainty. They should feel prepared for the challenge.

Discuss: Are there any areas of you programming where students engage in risky activities or activities where they may feel uncertain? How do you or could you mitigate the perception of risk? Discuss in pairs or small groups.

Optimizing Social and Emotional Learning

Adventure education can optimize the social and emotional learning through focusing on student-centered activities, providing opportunities for autonomy, social interaction, reflection, ownership, responsibility, and decision making from the student.

For example, instructors can incorporate decision making, autonomy, ownership, and responsibility by giving students input in the challenge, rather than a specific challenge being imposed upon them. In the rock climbing example, this would translate to having students choose what to climb or how high they want to climb. This could be framed in a goal-setting exercise and instructors and staff would help the student achieve their own goal, keeping the focus on the student. Goal-setting exercises also provide good opportunities to bring in reflection through asking discussion questions such as: What helped you meet your goal? How did it feel to exceed your goal? What would help you meet your goal next time? Why is setting goals important? Additionally, goal setting can be a good way to promote positive social interaction by modeling and encouraging support from classmates for students to reach their goals.

Consider providing an example such as modeling a discussion around challenge-by-choice or facilitating a zone activity where participants rank their comfort level (physically along a rope, with established hand signals, or an anonymous number rating written down) between comfort zone, challenge zone, and panic zone.

Activity: Have participants regroup and return to the curriculum they were reviewing earlier. Give the groups 15-20 minutes and some scratch paper for recording ideas. Write the following prompts on the board:

Identify places in program activities that include aspects of student-centered activities, autonomy, social interaction, reflection, ownership, responsibility.

Adventure Education

Compile 3-5 areas where these aspects could be included more. This could mean writing out some reflection prompts of developing an idea for how to restructure an activity to allow for more student decision making.

Regroup and have groups share a few of their ideas.

Putting students in situations of uncertainty or perceived risk in outdoor education could be counterproductive if students are pushed too far and their perception of risk is much higher than is realized. Students could walk away having a fearful rather than a positive experience. Instructors can prevent this by:

- Recognizing that level of challenge and perception of risk varies widely in students
- Do not needlessly increase the perception of risk
- Be aware that simply attending an outdoor education program may be largely outside the comfort zone of some students
- Have an exit plan in place for redirecting the activity if it is proving to be too much. This may include having alternate versions of activities planned (for instance, having a chaperone accompany a scared group of students in a navigation activity until they are more comfortable being in the woods) or different reflection prompts prepared to address topics such as learning from failure.

It is important to note that the experiences such as getting outside one's comfort zone, perseverance, and team-building are not exclusively experienced in adventure education. These experiences can be had within other realms of environmental education. For example, working with new people, walking in the woods during a science activity, or spending a night away from home can all be experiences that build upon some of the outcomes that are emphasized in adventure education.

Wrapping it Up

Reflection Discussion

Reflection Discussion: As a large group, have the group discuss the following prompts then get together as a large group and share thoughts. Consider having pairs discuss first to generate ideas before sharing with the large group.

What was most impactful or useful to you about the training today?

Where do you see applying what we talked about most readily into your teaching?

Going forward, what aspects of your curriculum, program structure, or teaching do you think could be most integrated with the application of reframing adventure education with social and emotional learning goals?

What questions do you still have?

As a training facilitator, much of these responses can be recorded to help you evaluate how the training went.

Centering the Hierarchy of Needs

Training Outline

The Hierarchy of Needs ~ 20 min

Activity: Applying the Hierarchy to Programming ~ 40 min

Wrapping it Up ~ 10 min

Total Time: 1.5 hours

Resource Appendices

Maslow's Hierarchy

Blank Hierarchy

Materials

- White Board
- Scratch Paper
- Writing Utensils
- Tables
- Samples of curriculum/ activities

Summary

Maslow proposes that humans are motivated by a hierarchy of needs and that the most basic of needs must be met in order for people to be motivated towards higher levels of learning. Maslow's hierarchy of needs provides a useful lens to look at the structure of programming as well as how we approach teaching. While the hierarchy of needs does not provide specific curriculum changes or a focused learning framework, it does provide conceptual grounds for basing instructor training, teaching techniques, behavior management practices, and program structure. Environmental education programs can draw on the application of Maslow's theory in schools as a framework for environmental education programs. Focusing on addressing the levels of the hierarchy helps create a better community and has a significant impact on student success and learning.

This training will delve into what the hierarchy of needs is and help to identify specific threats to students needs that occur in your program. It will provide opportunities for educators to collaborate to come up with way to address these threats both through teaching strategies, but also through adjusting program structure.

Training Goals

- Develop a thorough understanding of Maslow's Hierarchy of Needs in the context of environmental education
- Identify threats to students needs that occur within your specific programming
- Create actionable solutions that target threats to student needs
- Build teaching tools to help instructors manage student needs while teaching

The Hierarchy of Needs

Introducing Maslow's Hierarchy of Needs

In 1943, Abraham Maslow first published his theory on the Hierarchy of Needs. He proposed that humans are motivated by a hierarchy of needs and that the most basic of needs must be met in order for people to be motivated towards higher levels of learning.

Intro Activity

Step 1: Provide the group with the definitions of each motive. You can write them on the board or give out individual slips of paper. Be sure they are in random order.

Step 2: Working in pairs, have the group create their own hierarchy, based on which motives have priority over others.

Step 3: As a large group, have each pair share how they arranged them and why.

Step 4: Reveal Maslow's Hierarchy. You can find an example in the appendices.

Maslow's theory organizes human motivation into a hierarchy of five distinct motives: physiological, safety, belongingness, esteem, and self -actualization.

Physiological needs refer to basic homeostasis needs such as food, water, warmth, and sleep.

Safety needs could include physical safety, but also stability, dependency, structure, and freedom from fear.

Belongingness refers to the need for social connection, love and affection with others, through friendships, family, and other social circles.

Esteem as the need for a stable and well-based respect from oneself and others.

Self-actualization refers to less specific needs such as personal growth and discovery. Its application in education has defined it as when the best student learning and success occurs.

The hierarchy of needs implies that some motives take cognitive and developmental priority over others. Developmentally, we learn to feed

Facilitator Tip

Consider modeling some techniques for addressing Maslow's Needs throughout your training. Examples include:

- Write schedule of the day on the board including breaks
- Play a get to know you game at the start of the training
- Ensure everyone is included in a group
- Have snacks and water/ coffee available
- Have thumb-meter check-ins on energy level throughout the training

The Hierarchy of Needs

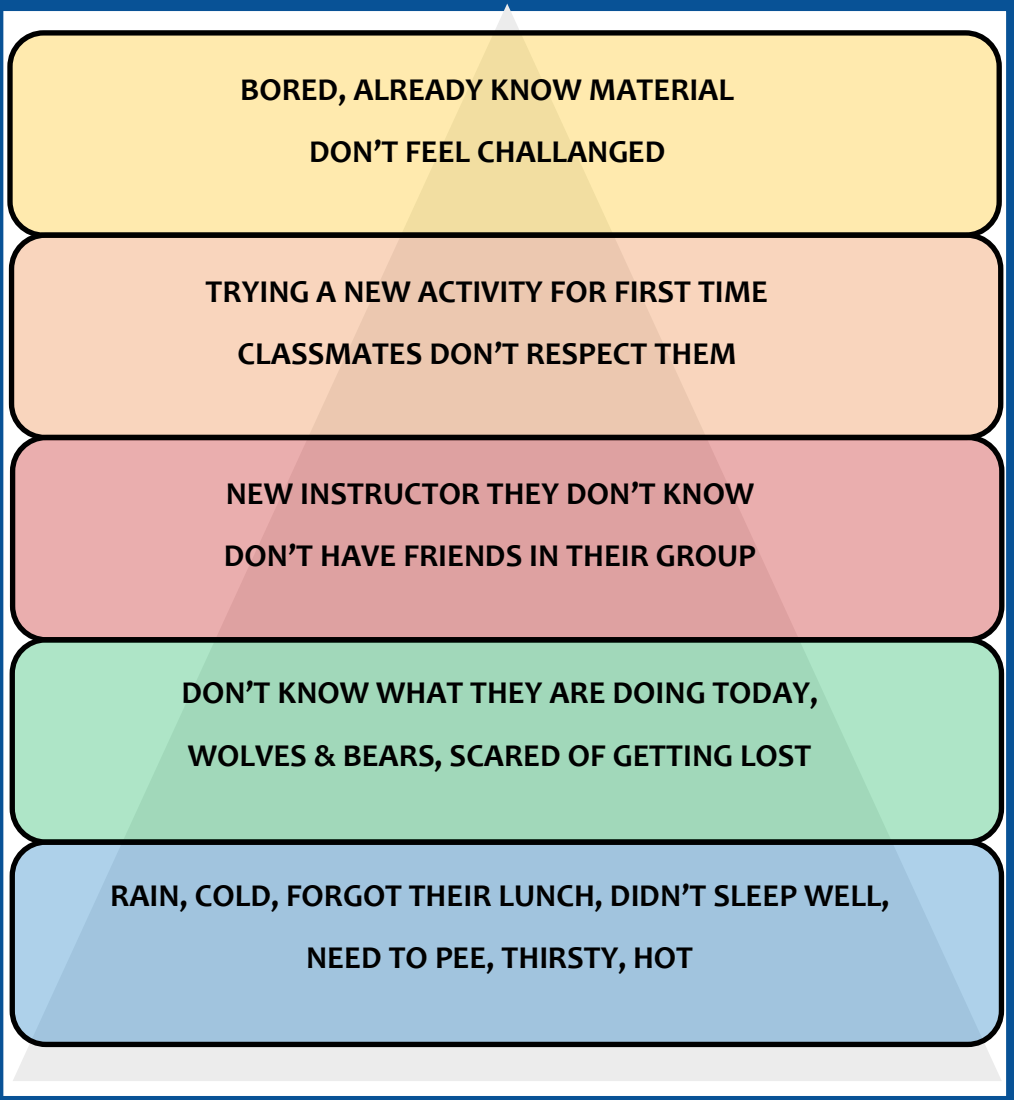
ourselves before we learn to run away from threats or seek acceptance into social groups. More relevant to the teaching and learning process, however, is the cognitive priority the hierarchy shows. The first level must be satisfied before focus can turn to subsequent levels. To apply this to an education specific example: in order for a student to be motivated to satisfy their curiosity about what makes lichen different from moss, they must first have basic needs such as hunger, warmth and safety met. A hungry and cold student is going to find it difficult to focus on learning.

Activity: Applying the Hierarchy to Programming

Transition: Now that we are a little familiar with Maslow's Hierarchy, let's spend some time thinking about how this applies to the context of Environmental Education and specifically, your programming.

Step 1: Hand out the "Blank Hierarchy" to each individual. This worksheet can be found in the appendix. Alternately, draw a sample on the board and give out scrap paper for individuals to create their own.

Step 2: Give 5 minutes for each person to brainstorm and write out specific threats to tiers of the hierarchy that may occur in your program. See examples to the right if groups are having a difficult time coming up with ideas.



Activity: Applying the Hierarchy to Programming

Step 3: Have people compare their hierarchy to a partner. Have each pair identify which threats are uncontrollable. Focusing on the threats that may be controllable, have them sort the threats into categories based on if the threat is a function of the programmatic structure (i.e. students are anxious about not knowing where they will sleep or are tired because they normally go to bed earlier) or a factor that is controllable on an instructor level (i.e. student is cold during class or does not feel included in an activity).

Step 4: Return together as a large group and have pairs share a few threats they identified that they think are particularly salient.

Step 5: Break up again either in pairs or small groups and give the group 15-30 minutes. Have groups pick a handful of threats and brainstorm ways to counteract or mitigate the threats to the basic need. For example, if the threat is students are cold and wet because they are unprepared for the rain, consider compiling a gear closet of loaner rain gear and other items to keep students warm and dry in inclement weather (programmatic level solution) or as an instructor check in with students before you go outside to make sure they bring their rain jackets and consider having check ins throughout the day to gauge how warm students are and consider taking a warm up break in a shelter if students are getting too cold (instructor level solution). Note—it may be prudent to focus the group on programmatic or instructor focused threats depending on the audience of the training.

Step 6: Return together as a large group and share some of the ideas each group came up with.

Useful Resource

This guide by the BEETLES Project provides a lot of useful examples and facilitation techniques for meeting students basic needs and has a lot of overlap with Maslow's Hierarchy of Needs. It is a great resource for instructors and would be worth sharing or looking over as a group to add additional perspectives with an environmental education specific focus.

http://beetlesproject.org/cms/wp-content/uploads/2017/07/Engaging-and-Managing-Students-in-Outdoor-Science.pdf

Wrapping it Up

Reflection Discussion

As a large group, have the group discuss the following prompts then get together as a large group and share thoughts. Consider having pairs discuss first to generate ideas before sharing with the large group.

What was most impactful or useful to you about the training today?

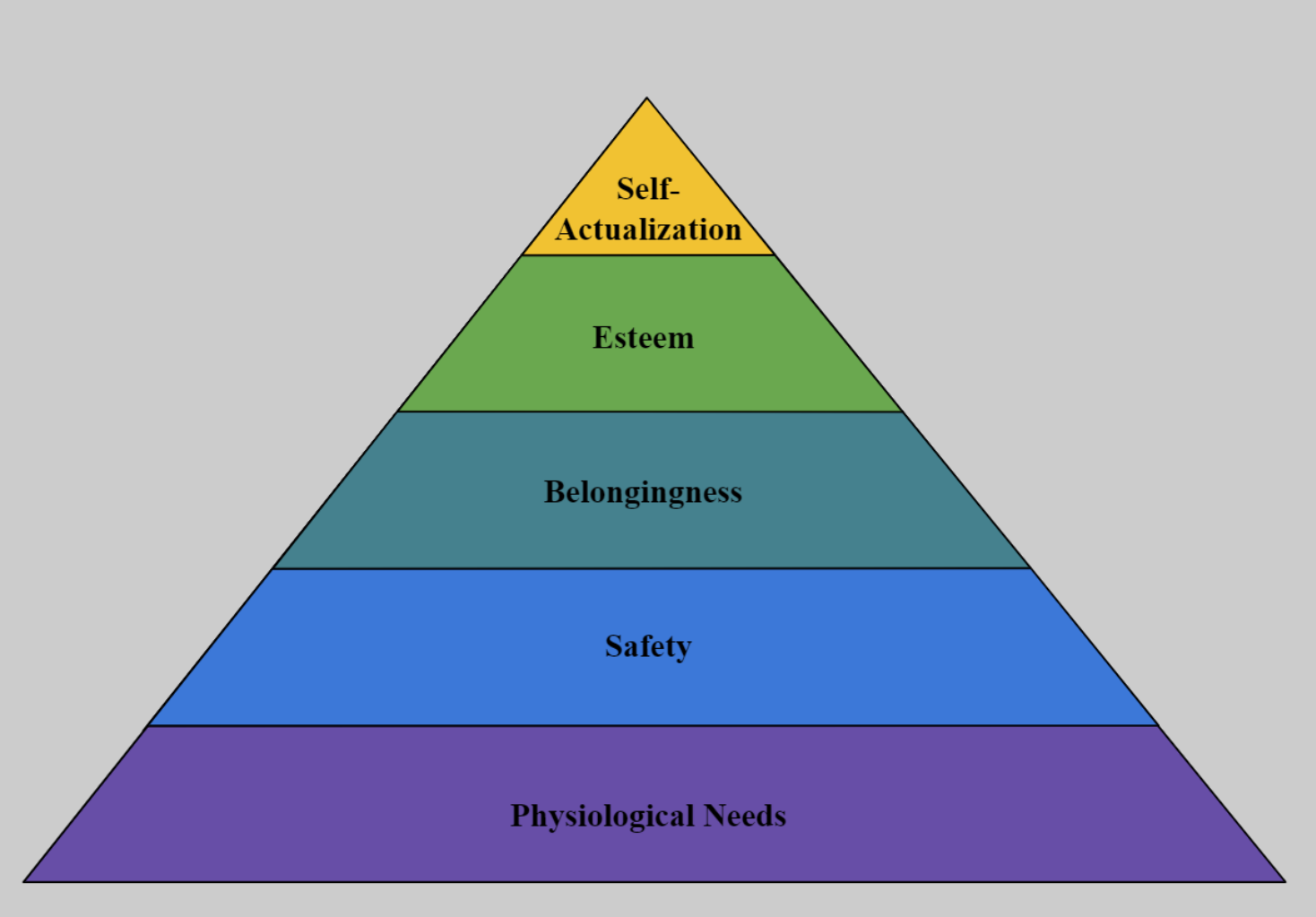
Where do you see applying Maslow's Hierarchy of Needs most readily into your teaching?

Going forward, what aspects of your curriculum, program structure, or teaching do you think could be most integrated with the application of Maslow's Hierarchy of Needs?

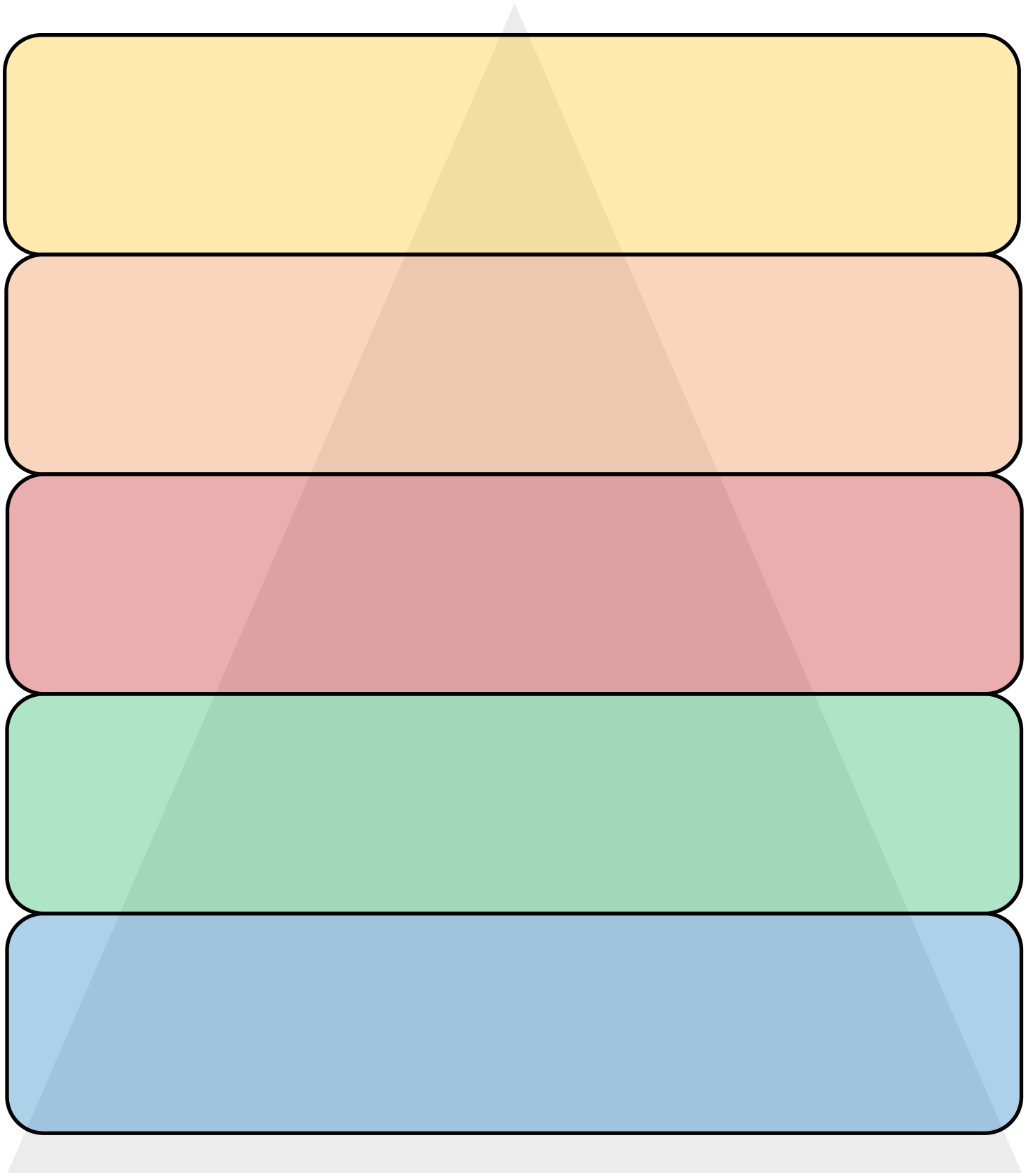
What questions do you still have?

As a training facilitator, much of these responses can be recorded to help you evaluate how the training went.

Maslow's Hierarchy



Blank Hierarchy



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