Leveling Up Student Skills with Evidence-Based Practices

Are you ready to take your students' essential skills—such as collaboration, persistence, and resilience—to the next level? In this ebook, we will use project-based learning (PBL) strategies to amplify your students' essential skills. Educators can use these short, evidence-based lessons to help students refine their skills and increase their capacity to thrive in and out of school!

ACT®

As an educator, do you ever wonder if there are effective ways to engage students in learning core academic content that some perceive as "boring" or "too difficult"?

Would you like to include practices that do not rely on rote memorization or textbooks?

Would you like to emphasize essential skills (like collaboration and resilience) in your teaching?

If so, this ebook is for you!

HOW TO ACCESS THE RESEARCH AND RESOURCES

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WHEN YOU SEE THE BLUE BOLD TEXT IN THE TOOLKIT, CLICK TO ACCESS THE RESEARCH AND RESOURCES.

This ebook will help you answer the following questions:

1 What is project-based learning and how does it compare with more traditional learning practices?

2 What are essential skills, and why are they important?

3 Is there evidence that PBL approaches are effective?

4 What does supporting essential skills in PBL look like?

5 Are there brief lessons that I can use today?

What is project-based learning, and how does it compare with more traditional learning practices?

Project-based learning (PBL) is a teaching practice in which students actively engage in real-world and personally meaningful projects. They work on a project over an extended period of time (from a week to a full semester), solving a real-world problem or answering a complex question. The goal is for students to demonstrate their knowledge and skills by creating a public product or presentation for a real audience. **PBL** fosters deep content knowledge, critical thinking, collaboration, creativity, and communication skills. In contrast, in "traditional" learning, subjects are often taught in isolation, and less emphasis is placed on how the concepts from one subject relate to those of another. Students typically follow a fixed curriculum that uses textbooks and lectures as the primary sources of course content and gives the teacher the responsibility for delivering content and guiding students through predetermined lessons. Some critics argue that traditional learning methods risk shaping students into passive learners. However, in typical classrooms, educators often blend elements of both PBL and traditional approaches to create effective learning experiences for students.

What are essential skills, and why are they important?

Essential skills (also known as character skills, 21st-century skills, or social and emotional skills) encompass a range of capacities that enable individuals to navigate and manage their emotions, develop positive and collaborative relationships, and manage tasks and goals effectively. These skills are important for academic, professional, and personal well-being and success. For example, in school settings, essential skills are known to foster more positive learning environments and are associated with higher levels of academic performance. These skills also impact longer-term academic achievement and career success by contributing to better productivity, teamwork, and leadership. Further, essential skills are key for building and maintaining healthy relationships because they foster empathy, effective communication, and conflict resolution. As a result of the many benefits of essential skills, educational institutions are increasingly recognizing the importance of teaching and fostering these skills in ways that can empower individuals to pursue their personal and professional goals and aspirations. A recent Learning Policy Institute **report** provides helpful background information about the current status of essential skills research and program effectiveness.

Is there evidence that PBL approaches are effective?

Yes! A recent meta-analysis by [Zhang and Ma (2023)](#) examined the impact of PBL on a variety of educational outcomes. This analysis revealed that project-based learning significantly enhances students' academic achievement, attitudes about and motivation for learning, and thinking skills compared to traditional teaching methods. The study analyzed 66 research papers and found a positive impact on the three learning outcomes examined (academic achievement, attitudes about and motivation for learning, and thinking skills). The results suggest that project-based learning interventions can effectively develop students' learning and promote a broader range of skills in the classroom.

Did You Know?

A **meta-analysis** is a statistical method that combines results from multiple studies addressing a similar research question to get a more accurate result that is less likely to be biased because it is not based on a single study (or a few studies). An important part of this method involves computing an effect size across all the studies included in the meta-analysis.

An **effect** size measures the strength or magnitude of an intervention's impact on student outcomes. It helps us understand whether a teaching method, program, or strategy has a meaningful effect. Think of it as a way to compare how much a group that received an intervention improved compared to a similar group that did not receive the intervention.

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What does supporting essential skills in PBL look like?

At ACT, we support students' growth in their essential skills through our **Mosaic™ by ACT® SEL** solutions. In our newest course, Community Involvement Skills, students learn about and apply essential skills as they work together on a PBL. They begin by exploring different components of essential skills, such as sustaining effort, getting along with others, and maintaining composure, and examine how these skills can help them in school, work, and life. Next, they put these skills into practice by developing a plan and creating projects to positively impact their school culture. Many of the lessons from the Community Involvement Skills course can be adapted to PBL projects in any content area.
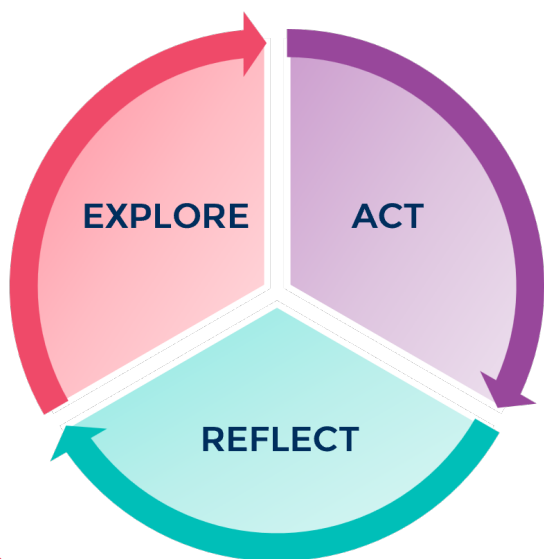
SUSTAINING EFFORT

GETTING ALONG WITH OTHERS

MAINTAINING COMPOSURE

Keep reading to see excerpts from our newest course and ways you can integrate them into PBL activities for your students.

EXPLORE

ACT

REFLECT

These brief lessons are organized using a simple pattern that supports iteration and refinement. The pattern encourages students (and educators) to explore, act and reflect!

- In the "explore" section, students will learn about a strategy or tool to help them develop a skill.
- In the "act" section, students will be provided with tips for practicing the skill.
- In the "reflect" section, students will think about what they learned, what worked, what needs fine-tuning, and how they can apply these lessons in the future.

GETTING ALONG WITH OTHERS

We work with others to reach our goals in all areas of life. Sometimes, this is for something fun, like teaming up for a trivia night. Other times, it could be more intense, like collaborating with coworkers and families to develop an intervention plan for a student. Developing our skills at getting along with others will help us demonstrate more empathy, cooperation, and trustworthiness, no matter the situation.

PBL naturally lends itself to developing and growing skills related to getting along with others. Students work together in small groups to solve real-world problems. They build relationships leading to feelings of connectedness and engagement as well as higher productivity. PBL also provides opportunities to practice conflict resolution and communication skills. The following excerpts from our course Community Involvement Skills can be integrated into any PBL project to help students grow their getting along with others skills.

EXPLORE

At the beginning of a project, ask students to think about the people they interact with regularly. These can be people from school, work, or their community. Next, have students recall one or two easily approachable people with whom they feel comfortable communicating and working. Then, have them write down specific behaviors the individual engages in that make the interactions comfortable. After a few minutes, ask students to think about one or two people with whom interaction is difficult (but don't name them). Again, ask students to list the specific behaviors that make these individuals difficult to interact with. After students have had time to brainstorm individually, bring them back together to make a class list. Sample answers may include the following:

Easy to interact with	Hard to interact with
• They listen. • They give their full attention. • They show a pleasant and positive attitude. • They understand the feelings of others.	• They don't listen. • They demonstrate aggressive behaviors. • They don't like to be bothered. • They think they are always right.

End the exploration by discussing the students' examples and summarizing how people generally enjoy working with those with strong interpersonal skills. Through their PBL projects, they will be able to grow in these and other skills.

ACT

Begin the activity by asking students to think about successful team projects or collaborations in which they have participated. These can be at school, at after-school clubs, at work, or in your community. What made them successful? Students can write their ideas on sticky notes or add them to a shared document. Highlight a few examples and ask students to share more about each successful project. Next, repeat this process, but this time, ask students to think about and write down common challenges they have experienced in working on a team project.

To help students practice overcoming common challenges, have them participate in a "this way or that way" role-play. Ask each team to choose one example of a common challenge during team projects and create a short skit. In one scene, they will act out how *not to handle* that challenge, and in the other scene, they will act out *a better solution* to handling the challenge. Provide students time to create and practice their skits before performing for the class or another group.

This activity can lead to students creating their own team contracts. Contracts can include ways the team will successfully collaborate and strategies to overcome common project challenges.

REFLECT

Throughout the PBL activity, give students time to reflect on their learning, ways of working together, and individual contributions. Some questions to prompt reflection on how students are using their skills in getting along with others include the following:

- What are ways I have contributed to my team? What are areas in which I can improve?
- What can I do to remember to use collaborative team strategies when I work with others?
- What are ways my team role-played well together?
- What are ways my team could improve our work together?

SUSTAINING EFFORT

We may long for the days when we had to keep track only of what our friends were up to this weekend and what assignments were due next week. But alas, as we get older, our responsibilities increase, and we have more tasks to organize and follow through on, as well as more challenges to persist through at work and in life. Through PBL, students develop skill at sustaining effort by learning about tools to help them organize and prioritize tasks and goals. But the work does not stop there. Students can then apply these tools to meaningful projects and have opportunities to persist through challenges so they can complete tasks and achieve their goals. Students can also transfer what they learned to their personal lives and use these tools to keep track of and follow through on the multiple and varied responsibilities that are part of adulthood. The following excerpts from our Community Involvement Skills course can be applied to any PBL project and support students' sustaining effort skills.

EXPLORE

Begin by asking students about strategies and tools they use, or have seen others use, to organize and keep track of their school and personal events, activities, assignments, projects, etc. What tools do they use, and how do they use them? For example, they might set alarms on their phones for when to wake up and leave for school. Discuss how these tools are only good when they are actually used and stress how important it is for students to find tools that work best for them. This can be more than one tool. Many successful people use a variety of tools, both digital and paper, to organize their school, work, and personal lives. For example, people can use the calendar app on their phones for alerts regarding due dates, and they can also use a paper planner to cross off completed tasks physically. In small groups, have students research different digital and paper calendars and organizational applications and explore the benefits of each. Students can use the following questions to start their research:

- Does the tool appear easy to use? If so, how?
- Is the tool free, or does it cost money? If so, how much?
- What are the features of this tool? (alerts, customization, access across multiple devices or platforms, etc.)

Groups can summarize their findings into a table like the one below and share their information with the class.

Benefits of Digital and Paper Organizers

| Digital organizers	Paper organizers
1. Portable and accessible on multiple devices. Many digital calendars or planners allow you to access them from your phone, computer, and tablet. This allows you to see what is coming up no matter which device you have with you. 2. Shareable. You can invite others to see your entire calendar or certain parts of your calendar. This allows you to create calendars for various projects you may have with different team members. 3. Customizable. In addition to being able to customize who you share your calendar with, you can color code events or change your display to view the day, week, month, or year. 4. Alerts and alarms. You can set alerts for various due dates and action items.	1. Memory. Writing items down helps you remember them more easily. 2. Fewer distractions. When you write events or activities on this calendar or planner, you will not be interrupted by the notifications, reminders, and messages on your other apps. 3. Sensory input. The physical act of writing offers sensory input, which can lower stress and anxiety. Also, crossing items off a list promotes a feeling of accomplishment. 4. Visual reminder. Hanging a calendar in an area you view often reminds you of what is coming up and what you have accomplished.

End the lesson by encouraging students to select one of the applications or tools they researched and give it a try.

ACT

Once students have a list of the tasks for their PBL project, highlight a tool many professionals use to organize tasks and group projects: a Kanban board. The use of the Kanban board goes back to the 1960s on the manufacturing floor of Toyota Motor Company. This visual tool helped the team see the flow of the manufacturing process. It is used in various forms and is widely used among software developers, but it can be used to manage any type of project, like PBL projects or applying to colleges. You can use large poster paper, markers, and notes to create a basic Kanban board, or you can create one digitally on a spreadsheet or other application. A basic Kanban board looks like this:
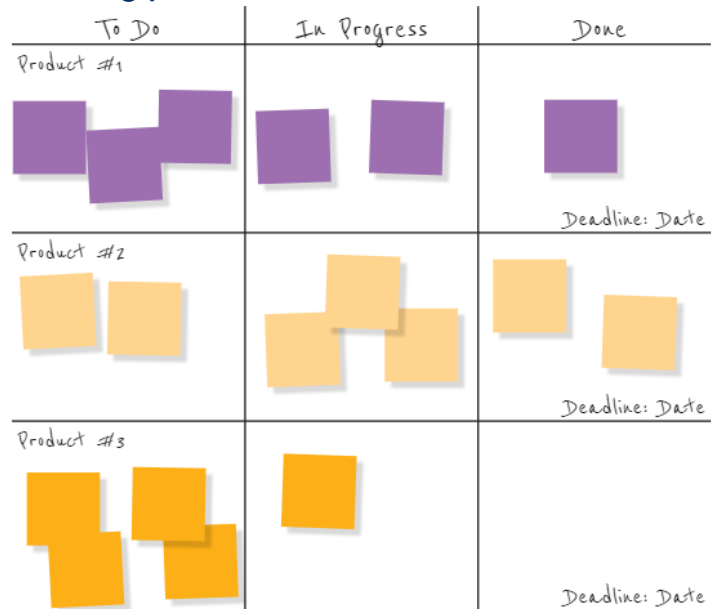
The colored sticky notes represent all the tasks a team needs to complete to finish a project. The team reviews the Kanban board at the beginning of each work session to see what needs to be done. Each team member decides which task they will do, writes their name or initials on the note, and moves it to the In Progress column. After completing the task, the individual moves that task's sticky note to the Done column and chooses another task to complete.

REFLECT

Ask students to consider the different tools they can use to stay organized and improve their sustaining effort skills. Next, ask them the following questions.

- What tools and strategies are you currently using to organize your school and personal life? What are the pros and cons of each?
- What is your level of independence in managing these systems? For example, do your parents or teachers have to remind you to complete tasks frequently? If so, what strategies can you use to increase your independence?
- How is the Kanban board working to keep your PBL project organized? What are ways you could use a Kanban board in your life?

MAINTAINING COMPOSURE

Many PBL experiences include a presentation where groups share their projects and results with interested stakeholders. Depending on the type of project, the presentations can vary in size and scale. This also applies to the presenters' level of nervousness and worry. Their stress can vary according to any number of reasons: past experiences, audience members, comfort level, etc. The strategies students can explore and practice through their PBL project can also help them manage nervousness before other important events in their lives, such as job interviews, important exams, or even tough conversations. The lesson excerpts below from our course Community Involvement Skills highlight a few of the strategies students learn in this course to acknowledge and navigate stress and worry in their lives.

EXPLORE

Begin the lesson by asking students to think about a significant event when they needed to perform or do an unfamiliar or difficult task. This could be delivering a big presentation, playing in a recital or game, taking an important exam, or having a tough conversation. Ask students to think about how they felt before this event and how they prepared for it. Provide students time to think and then ask a few volunteers to share examples with the group. Discuss with students that although it is common to feel nervous before an important event, there are ways they can reduce their nervousness and manage these feelings.

Present the following strategies to the class.

Being nervous is okay.
- The nervousness you feel is your body telling you that you want to do well. Accept that some nervousness will be part of the experience and try to understand what techniques can help you manage these nerves.

Practice, practice, practice.
- Most likely, you have been asked to present because you know this content well. Now you will teach it to others. Practice how you want to present this information to engage and teach your audience. And then practice again and again.

Take deep breaths.
- Before you practice your presentation and before the actual presentation, take several deep breaths. Deep breathing helps to clear your mind and calm your body.

Picture your success.
- Visualize yourself giving a good presentation and picture your audience excited about the information you shared. You've got this! Does "fantastic" set too high of an expectation? Perhaps "good" is a more realistic one?

End the lesson by asking students to explore ways to practice these strategies and look up other strategies they would like to add to this list.

ACT

Begin this lesson by guiding students through a focused breathing exercise. As shared in the prior lesson, taking deep breaths helps to clear the mind and calm the body.

- Close your eyes.
- Take a deep breath in. As you do, imagine the air you breathe fills your body with calmness and peace.
- Slowly breathe out. As you do, imagine all the stress and nervousness leaving your body.
- Repeat for 2–5 minutes.

Next, in their groups, have students discuss the following questions:

1. What does nervousness/anxiety before a presentation look and feel like for each group member?
2. How do you practice for a presentation? Share strategies that help. Make a plan for how the team will practice together and individually.
3. Practice the focused breathing technique. Have one person lead the group through this exercise before each practice and the final presentation.
4. What does a successful presentation look like for each person?

After teams have had time to discuss, have them share what they learned from each other and describe their plan to prepare for the presentation.

REFLECT

After the PBL presentations, ask students to think about the calming strategies they used and answer the following questions:

- What strategies did you and your team use before your presentation?
- How did these strategies help reduce nervousness before and during your presentation?
- Where else could you use these strategies?

SUMMARY

In this ebook, you learned about essential skills and project-based learning (PBL). Essential skills are interpersonal, emotional management, and task-related behaviors that empower individuals to manage their emotions, cultivate positive relationships, and effectively handle tasks and goals. These skills are crucial for successful performance in academic and professional settings, as well as for achieving personal well-being.

PBL is an instructional approach where students immerse themselves in real-world projects and work over a longer period to solve authentic problems or address complex questions. In PBL, students create public products or presentations wherein they demonstrate deep content knowledge, critical thinking, collaboration, creativity, and communication skills. Since many of the skills emphasized in PBL approaches foster collaboration, persistence, and resilience, PBL is an effective method for developing essential skills.

The brief lesson examples in this ebook will help your students develop their skills for getting along with others (e.g., working collaboratively), sustaining effort (e.g., making plans, staying organized, and pursuing goals), and maintaining composure (e.g., managing nervousness and worry). You can implement these lessons in your classroom to create more collaborative and engaging teaching and learning opportunities. More importantly, the lessons will help your students develop skills that will pave the way to their success in school and beyond.

LEARN MORE

If you found these brief lessons helpful, you might be interested in the full Community Involvement Skills course. It is designed for Grades 9–12 and includes 52 lessons like the ones in this ebook. It is aligned to CASEL standards and available online. For the course guide, click here.