



STEMD<sup>2</sup>

# Module V: Implementing AISLM

Unit 3: Practical Strategies for implementing the AISLM

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## Practical Strategies for Implementing AISLM: The First Weeks of School

*I mentioned earlier that some of the teachers at my school think my job is easy because they think that all I do all day is watch my students work. Honestly, there is some truth to that statement. Although the teachers don't realize that I spend my days facilitating learning and using formative assessments to help my students, the students are working hard. I spend very little or no time monitoring and correcting my students' behavior. You see, when students are engaged and have the ability to sit and communicate with their chosen social networks, they really have no reason to misbehave. But, creating this kind of environment takes time. Students have to be taught how to work in social learning environments and how to use social technologies to collaborate. Middle school students are not naturally self-regulated learners, so I have to spend time teaching them these skills. The time that I have to invest at the beginning of the year to teach these skills is well worth it to create a cohesive learning environment and results in higher math scores and better problem-solving skills. It's important to spend the first few weeks of school laying the groundwork for self-directed learning in the AISLM. Note that your role is to teach students how to learn!*

At this point in the training guide, you should understand how the AISLM components work together to create a holistic model for middle school mathematics. You should understand how implementing AISLM would be beneficial to you and your students. Your students will enjoy learning math in an authentic and inclusive social learning environment. You, in turn, will enjoy spending your days facilitating your students' learning. This last section of the training guide consists of practical strategies to use the first weeks of school to prepare your students to work and learn using the AISLM. As always, the following strategies are suggestions that you can modify to fit the needs of your classroom and your students. While this training guide recommends using the following strategies to start AISLM at the beginning of the year, you can implement this model and transition your classroom at any time.

### *Before the Students' First Day*

**Arrange your furniture to accommodate social learning and provide seating options.** Your classroom should be an environment that encourages collaboration, so the placement of your furniture needs to be planned for that purpose. Ideally, your furniture should provide various seating options so students can sit where they are comfortable. As a middle school teacher, you are probably limited to desks and chairs provided by your school district. If possible, try to use a mix of tables and desks to provide options. If you can, get yoga balls or other diverse seating options for your students. The idea is to provide options, not just desks in rows with matching chairs. Any arrangement will work as long as it creates comfortable options for you and your students. Play with different seating arrangements, but resist the urge to assign seats; assigned seats limit student-selected social learning networks. If you spend a few minutes on the internet

you can find a wide variety of seating options for collaborative classrooms. See the resources section for a few suggestions to get you started.

**Plan your PBL components of AISLM.** Planning for PBL is generally the most teacher-intensive and time-consuming part of AISLM. Plan your PBL ahead of time so you can spend your lesson planning time breaking the PBL into daily objectives and planning the formative assessments. Make sure your PBL focuses on math, follows the guidelines for quality projects, and is inclusive. STEM<sup>2</sup> provides a book series with various sample activities covering middle school math standards.

**Plan for your students who have special needs.** Take time to learn which students have IEPs, 504s, are gifted or have other special needs. Learn their needed accommodations or modifications so you can plan your lessons around those needs. The best way to start planning is by listening to their ‘stories’ and talking to them. You will not only learn about their preferred ways of learning, presenting their mastery, but just as important, you will get to know about them. This will allow you to better prepare and modify your lessons to make them relevant.

**Find experts or community members who are willing to connect with or mentor your students.** Start to make connections with experts or mentors who can help you extend your students learning beyond the classroom. Ask around at businesses, government entities, and universities to find volunteers.

### *The First Weeks of School*

**Give your students the opportunity to learn about themselves.** Have your students take personality tests to identify their personality type, strengths, and weaknesses. There are a variety of free tests available online. Try to find one that can be easily interpreted by middle school students. See the resources section of this chapter for suggestions.

**Give your students the opportunity to identify and develop their individual learning styles.** Allow your students to identify their learning styles so they can start to develop their own learning pathways. Ask students to write an essay on their learning style or preferences. Use resources available online to help your students identify their unique learning styles. See the resources section of this chapter for suggestions.

**Develop several mini-PBL projects that you will use to teach your students how to learn in an AISLM class.** The projects should follow the PBL guidelines, except they should only last one to three days, and your students should give their presentations to the class instead of experts. Create short projects so your students can work within several different groups in the first few weeks. Use these projects to teach the remaining strategies listed below. The projects you design for the first few weeks should be light-hearted and engaging. The goal is to get students comfortable with social learning and presenting to their classmates. Using light-hearted problems

will help the students become more comfortable. For example, students can create math superhero leagues who work together to develop the shortest route from the classroom to the cafeteria. Ask your students to present their ideas to the class. If your students get used to presenting in less-stressful situations, they will be more comfortable later during true PBL lessons. Ideas for projects are only limited to your imagination. See the resources section for some suggestions to get you started.

**Teach your students how to navigate information.** Create mini-PBL projects that require your students to research specific information. Use the opportunity to teach your students how to determine if sources are reliable and how to cite their sources.

**Help your students find various resources to solve problems.** When your students have questions about an activity, encourage them to discuss the topic with their peers and search for information from reliable sources. Provide your students with technology and resources, but give them the freedom to figure out how to use the resources.

**Teach your students how to critique one another.** Teach your students how to respectfully share divergent and conflicting opinions through cooperative learning activities. Discuss ways that your students can respectfully critique and disagree, but use those critiques to create better solutions.

**Teach your students how to develop competing solutions and perspectives.** Encourage your students to come up with multiple ways to solve a problem. Ask them to find solutions they don't think the other groups will have. This helps students develop a personal understanding that mathematics is a creative process, and they can take different routes to the same destination.

**Build and nurture student-teacher relationships.** Take the time to learn about your students' lives outside of the classroom. When your students know you care about them, they will work harder in the classroom. Listen to their stories, aspirations, pains, and challenges without being judgmental. Remember, you need to connect to students' hearts before training their minds.

**Give your students the opportunity to work with a number of different students in the class.** Ask your students to choose their groups for each mini-PBL using a different set of criteria. Use their personality types or learning styles. You can have them select groups where no one shares the same learning style for one project or have similar styles for another project.

**Teach your students how to select group members based on the needs of the assignments.** After students have worked in several different groups it is time to teach them how to work in social learning networks. As a group, identify what roles are needed to complete their upcoming task. Ask them to identify the strengths a person has to have for each role and then ask them to identify the role they are best suited to play. One technique is to have your students write their roles on a piece of paper and hold them so their classmates can see it. Then ask students to select their groups so each role is represented.

**Teach your students how to nurture and maintain connections.** Help your students practice positive interpersonal and group communication skills to nurture and maintain relationships. When they are working in their groups, help your students to communicate effectively by talking to them about their progress and collaboration skills.

**Use formative assessment daily to teach your students how to receive feedback.** Plan to assess a different skill each day so your students get used to formative assessments. Focus on mathematical practices or 21<sup>st</sup>-century skills and provide feedback. For example, you can assess how well the students collaborate or communicate. Provide feedback on how to improve those skills.

**Be willing to let your students adjust the furniture to suit their needs.** You spent time before the school year setting up the classroom, but the goal is to create an environment where the students are comfortable. So, allow the students to move furniture to accommodate their social learning networks during their lessons. Teach them how you want the furniture arranged before they leave the classroom and insist they all work together to return it to that arrangement.

### *Possible Pitfalls to Watch for and Avoid*

**Don't overwhelm yourself and your students.** This model will take some time to implement fully, so use the tips listed above and start with mini-PBL assignments at the beginning. It is going to take time for you to learn to facilitate your students' social networks and it will take time for your students to learn to collaborate effectively. Give yourself and your students time to implement the model and improve on it as the year progresses.

**Don't think you have to change everything about your teaching to implement the AISLM.** The AISLM is designed to help you find ways to modify your current teaching style and shift to a student-centered inclusive classroom. If there are certain aspects of your classroom or assignments and projects that you love and your students love, keep them. The AISLM is intended to make your classroom more enjoyable for you and your students, so maintain the parts you love and change the parts you do not.

**Don't forget to collaborate with your teammates and coworkers.** The biggest reason that teachers give for leaving the profession is that they feel isolated. Find another teacher at your school and commit to implementing the AISLM together. You can share your success stories to help one another and share things that didn't work so you can adjust your strategies.

**Don't forget to have fun!** Teaching is supposed to be an enjoyable experience for you and for your students. Take time to celebrate successes and enjoy your time with students. Middle school students are full of energy and creativity and thus, have a lot to offer if you properly engaged them.

What are the top five strategies that you can use the first weeks of school to teach your students how to learn?

## Resources for Implementing AISLM

### Possible Seating Options:

- <https://thecornerstoneforteachers.com/classroom-seating-arrangements/>
- <https://www.displays2go.com/Article/Effective-Classroom-Seating-Arrangements-32>
- <https://www.template.net/business/charts/classroom-seating-chart-template/>

### Ideas for Mini-PBL lessons for the first few weeks:

- <https://my.pblworks.org/projects>
- [Ideas for First Week Project](#)

### Learning Style Inventory:

- <https://www.dvc.edu/enrollment/counseling/lss/survey.html>
- [https://wvde.state.wv.us/counselors/links/students/documents/9.8.1-Learning\\_styles\\_assessment.pdf](https://wvde.state.wv.us/counselors/links/students/documents/9.8.1-Learning_styles_assessment.pdf)

### Personality Tests:

- <http://mycareerproject.org/test/personality-test/>

<https://www.16personalities.com/free-personality-test>