AMATYC 2025 Fall Board Meeting

Thursday, September 18, 2025; Thursday, October 16, 2025; Sunday-Wednesday, November 9-12, 2025, Saturday, December 13, 2025.

September Monthly Meeting

Thursday, September 18, 2025 (Virtual via Zoom)

Note: All times are EST

The meeting was called to order at 4:09 pm by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Alvina Atkinson	Southeast Vice President
Eddie Tchertchian	President-Elect	Brandon Bartley	Midwest Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
Sophia Georgiakaki	Northeast Vice President	Lindsey Gerber	West Vice President
Dennis Ebersole	Mid-Atlantic Vice President		

Also present was: Debbie Rimkus, Executive Director; Turi Suski, Conference Coordinator.

President Hurlburt reviewed the rules of conduct.

Motion: Approve the meeting's Rules of Conduct. (Attachment A)

Motion approved without objection

Motion: Approve the Agenda provided on the previous pages. (Attachment B)

Motion approved without objection

EXECUTIVE SESSION

The Board went into Executive Session at 4:06 pm. Debbie Rimkus and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 4:35 pm. At that time, Secretary Weisbrod reported out the following:

The Board made the appointments listed on Attachment C, pending membership verification.

NEW BUSINESS

Motion: Approve the SCC 2025 Minutes as presented.

Made by Weisbrod and seconded by Johanson.

Motion approved

Motion: Approve the revised Ownership chapter of IMPACT (2018) to go to the 2025 Delegate Assembly for approval to be published online as presented. (Attachment D)

Made by Tchertchian and seconded by Watkins

Motion approved

Motion: Approve the attached PPM 6.15.3 changes. (Attachment E)

Made by Kundomal and seconded by Georgiakaki

Motion approved

Motion: Approve the proposed changes to PPM 5.1.5.8. (Attachment F)

Made by Hurlburt and seconded by Bernards

Motion defeated

PARKING LOT

Discussion: The Board discussed sustaining the Teaching for PROWESS Initiatives

Discussion: The Board discussed airfare versus mileage reimbursement and whether we would should set mileage limits similar to airfare.

Discussion: The Board discussed the MathAMATYC Educator and whether we should provide a pdf to the authors.

EXECUTIVE SESSION

The Board went into Executive Session at 6:04 pm. Debbie Rimkus and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 6:11 pm. At that time, Secretary Weisbrod reported out the following:

The Board discussed personnel matters. No action was taken.

Motion: To suspend the 2025 AMATYC FBM Board Meeting.

Made by Bartley and seconded by Travis.

Motion approved

The 2025 AMATYC Fall Board Meeting was suspended at 6:15 pm.

October Monthly Meeting

Thursday, October 16, 2025 (Virtual via Zoom)

Note: All times are EDT

The meeting was called to order at 4:01 pm by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Brandon Bartley	Midwest Vice President
Eddie Tchertchian	President-Elect	Alvina Atkinson	Southeast Vice President
Laura Watkins	Past President	Jennifer Travis	Southwest Vice President
Jonathan Weisbrod	Secretary	Jessica Bernards	Northwest Vice President
Sophia Georgiakaki	Northeast Vice President	Lindsey Gerber	West Vice President
Dennis Ebersole	Mid-Atlantic Vice President		

Also present were: Debbie Rimkus, Executive Director; Turi Suski, Conference Coordinator.

President Hurlburt reviewed the rules of conduct.

Motion: Approve the meeting's Rules of Conduct. (Attachment A)

Motion approved without objection

Motion: Approve the Agenda provided on the previous pages. (Attachment G)

Motion approved without objection

EXECUTIVE SESSION

The Board went into Executive Session at 4:06 pm. Debbie Rimkus and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 4:09 pm. At that time, Secretary Weisbrod reported out the following:

The Board reappointed the attached individuals to their identified positions pending member verification. (Attachment H).

NEW BUSINESS

Motion: Approve the attached Vision and Policy on a Welcoming and Inclusive Environment drafted by the Welcoming and Inclusive Environment Task Force effective immediately. (Attachement I)

Made by Ebersole and seconded by Georgiakaki.

Motion returned to committee

PARKING LOT

Discussion: The Board shared that the Anne and David Dudley Excellence Award Endowment has been approved by the Foundation.

Presentation: Karen Gaines and Dennis Ebersole shared outcomes, updates, and progress of the Teaching for PROWESS activities.

Discussion: The Board discussed potentially changing the PPM to update per diem rates.

Discussion: The Board discussed the results of the survey on an AMATYC name change.

Discussion: The Board discussed whether the SBM meeting location should be selected based on the proximity of traveling members.

Discussion: The Board discussed Standards Committee and the direction we should take with it moving forward.

Announcement: Turi Suski shared that we have met the room attrition minimum for the Reno conference.

Discussion: The Board discussed the SRL Assistant Coordinator Position. A committee was formed comprised of Travis (chair), Rimkus, and Gerber.

Discussion: The Board discussed their decision process on inviting members to speak at Board meetings.

Motion: To suspend the 2025 AMATYC FBM Board Meeting.

Made by Tchertchian and seconded by Travis.

Motion approved

The 2025 AMATYC Fall Board Meeting was suspended at 6:09 pm.

Fall Board Meeting

Sunday, November 9, 2025 (Reno, NV)

Note: All times are PST

The meeting was called to order at 9:03 am by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Dennis Ebersole	Mid-Atlantic Vice President
Eddie Tchertchian	President-Elect	Brandon Bartley	Midwest Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
Sophia Georgiakaki	Northeast Vice President	Lindsey Gerber	West Vice President

Also present were: Debbie Rimkus, Executive Director; Turi Suski, Conference Coordinator

President Hurlburt reviewed the rules of conduct.

Motion: Approve the meeting's Rules of Conduct. (Attachment A)

Made by Bernards and seconded by Watkins.

Motion approved

Motion: Approve the Agenda provided on the previous pages. (Attachment J)

Made by Ebersole and seconded by Weisbrod.

Motion approved

The Board received and reviewed Board Member Reports.

Ratify Email Motion: Approve Level 2 support for the Gates Foundation proposed grant (INV-097033) American Mathematical Association of Two-Year College: Conference Support for AMATYC

Motion approved on consent

Consent Motion: Set the annual membership dues for a regular individual AMATYC member to $119 effective July 1, 2026.

Motion approved on consent

The Board received and reviewed ANet Chair Reports

The Board received and reviewed Coordinator/Director/Editor Reports

Motion: Approve the attached changes to PPM 12.2 AMATYC News effective January 1, 2026. (Attachment K)

Made by Watkins and seconded by Bernards

Motion approved

Motion: Approve the attached changes to PPM 9.1.1 ANet Chair Responsibilities effective January 1, 2026. (Attachment L)

Made by Hurlburt and seconded by Bernards

Motion approved

The Board received and reviewed Administrative Committee Reports.

The Board received and reviewed Ad Hoc Committee Reports.

The Board received and reviewed the Conference Committee Reports.

The Board reviewed board member conference tasks to be completed.

The 2025 AMATYC Fall Board Meeting was suspended at 4:30 pm.

Monday, November 10, 2025 (Reno, NV)

Note: All times are PST

The meeting was called to order at 9:09 am by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Alvina Atkinson	Southeast Vice President
Eddie Tchertchian	President-Elect	Brandon Bartley	Midwest Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
Sophia Georgiakaki	Northeast Vice President	Lindsey Gerber	West Vice President
Dennis Ebersole	Mid-Atlantic Vice President		

Also present were: Debbie Rimkus, Executive Director; Turi Suski, Conference Coordinator

The Board received and reviewed Other Conference Reports.

Motion: Approve all six proposed themed sessions for Philadelphia 2026.

Made by Tchertchian and seconded by Weisbrod

Motion approved

The Board received and reviewed Partnerships/ Miscellaneous Reports.

EXECUTIVE SESSION

The Board went into Executive Session at 2:07 pm. Turi Suski and Debbie Rimkus were asked to stay for the Executive Session.

The Board exited Executive Session at 2:49 pm. At that time, Secretary Weisbrod reported out the following:

The Board discussed various personnel matters.

The Board appointed/reappointed the attached individuals to their identified positions pending member verification. (Attachment M).

PARKING LOT

Discussion: The Board reviewed the decision from FBM 2024 to create a digital program.

Discussion: The Board discussed the interpretation of the term *ex officio* in the PPM.

Discussion: The Board discussed whether Regional and Adjunct Scholarships should be need-based.

Discussion: The Board discussed procedures for keeping Affiliate President information up to date.

The 2025 AMATYC Fall Board Meeting was suspended at 3:36 pm.

Tuesday, November 11, 2025 (Reno, NV)

Note: All times are PST

The meeting was called to order at 9:06 am by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Alvina Atkinson	Southeast Vice President
Eddie Tchertchian	President-Elect	Brandon Bartley	Midwest Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
Sophia Georgiakaki	Northeast Vice President	Lindsey Gerber	West Vice President
Dennis Ebersole	Mid-Atlantic Vice President		

Also present was: Debbie Rimkus, Executive Director.

Motion: Approve the attached PPM changes for Student Research League and Two-Year College DataFest, the change would be effective January 1, 2026. For Student Mathematics League, the change would be effective starting with the 2026-2027 competition.

Made by Travis and seconded by Bernards

Amendment: Amended language is provided in Attachment N.

Made by Hurlburt and seconded by Travis

Amendment approved

Motion approved as amended

The Board received and reviewed the Office Report

The Board received and reviewed the Treasurer's Report

Motion: Approve the expenditures from the AMATYC cash account register from March 1, 2025 through August 31, 2025.

Made by Kundomal and seconded by Gerber

Motion approved

Motion: Suspend PPM Section 4 Part d until the AMATYC Executive Board approves the 2026 budget.

Made by Kundomal and seconded by Bernards

Motion approved

Motion: Approve the 2026 budget, effective January 1, 2026.

Made by Kundomal and seconded by Johanson

Motion approved

PARKING LOT

Discussion: The Board discussed how we populate the TE Award, MLE Award, and Nominating Committees.

Discussion: The Board discussed the AMATYC Conference Guest Policy for those in the Mathematics field.

Discussion: The Board discussed the future of the Standards Team and expectations moving forward.

Discussion: The Board discussed a potential executive board reorganization.

Discussion: The Board discussed options for a company to make clothing with an embroidered logo.

Discussion: The Board discussed the MathAMATYC Educator journal and whether is should go digital, go behind a paywall, or be open to all.

The 2025 AMATYC Fall Board Meeting was suspended at 3:52 pm.

Saturday, December 13, 2025 (Virtual via Zoom)

Note: All times are EST

The meeting was called to order at 5:13 PM by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Alvina Atkinson	Southeast Vice President
Eddie Tchertchian	President-Elect	Brandon Bartley	Midwest Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
Sophia Georgiakaki	Northeast Vice President	Lindsey Gerber	West Vice President
Dennis Ebersole	Mid-Atlantic Vice President		

Also present were: Debbie Rimkus, Executive Director;Turi Suski, Conference Coordinator; Donn King, Parliamentarian

Motion: Approve the Agenda. (Attachment O)

Motion approved without objection

EXECUTIVE SESSION

The Board went into Executive Session at 5:18 PM. Debbie Rimkus and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 5:24 PM. At that time, Secretary Weisbrod reported out the following:

The Board appointed the attached individuals to their identified positions pending member verification. (Attachment P).

Motion: Approve Over Expenditure for AV Equipment at the Conference

Made by Tchertcian and seconded by Georgiakaki

Motion approved

Motion: Approve Level 2 support for Mathematics Teaching: Technical and Vocational Education and Training Grant

Made by Johanson and seconded by Georgiakaki

Motion approved

The 2025 AMATYC Fall Board Meeting was adjourned at 6:15 PM.

Jonathan Weisbrod, Secretary 2024 – 2025
December 13, 2025

George Hurlburt, President 2024 – 2025
December 13, 2025

ATTACHMENTS

RULES OF CONDUCT
AMATYC September 2025 Meeting
September 18, 2025

A. Robert's Rules of Order are used. The parliamentarian is **Brandon Bartley**.

B. Additions or deviations to Robert's Rules:
- Motions submitted after the deadline must have at least one co-sponsor.
- Motions related to extended time will not be recorded in the minutes.
- Motions that do not make it to the floor will not be noted in the minutes.
- Motions that were discussed but withdrawn will be noted in the minutes.
- Instances when gavel is passed back and forth are not mentioned in the minutes.
- Attachments to the motions that are approved by the Board, but require slight modifications, will be edited by the person who wrote the motion and he/she will send the clean copy as well as one with track changes to the secretary after the board meeting.
- Attachments of withdrawn motions will not be included in the minutes.

C. The following time limits will be applied unless otherwise noted:

Reports (R) - 5 minutes
Discussion items (D) – 10 minutes
Motions involving discussion (M) – 15 minutes

Times on individual items may be extended by a majority vote of the Board. Some items in the agenda may have different values assigned than listed here. The timekeeper is **Dennis Ebersole**

D. No speaker may speak on a motion more than two times, and this will be monitored by the Parliamentarian. Members are encouraged to display the "thumbs up" or "thumbs down" signs rather than to use their speaking times to echo comments previously expressed. Order of speakers is not guaranteed and may be changed at the option of the Chair. Note that questions of clarification do not count as one of the two times a person is allowed to speak.

E. Professional decorum is expected at all times during the board meeting. The chair shall interrupt and rule a speaker out of order, if appropriate. **Please silence all cell phones.** Refrain from computer use other than board business.

F. The following individuals are asked to track items throughout the meeting.
1. Items relating to Conference: **Jessica Bernards** and **Dale Johanson** (Report to Turi at the end of SBM.)
2. Items relating to Budget: **Brandon Bartley** and **Alvina Atkinson**. (Report to Kyle Kundomal prior to SBM so the information can be incorporated into the budget).
3. Items relating to the Office: **Jennifer Travis** and **Lindsey Gerber**. (Report to Anne Dudley at end of SBM).
4. Items relating to VPs: all VPs.
5. Items to address at a future board meeting: **Laura Watkins** and **Kyle Kundomal**. (Report to the President at the end of SBM.)
6. Items related to the PPM: **Sophia Georgiakaki**, **Eddie Tchertchian**. (Report to the President-elect at the end of SBM.)

Order of Business – Meeting Agenda
Fall Board Meeting
AMATYC Executive Board
September 18, 2025

Page	Agenda Item	Who
	Call to Order	Hurlburt
Section A: Meeting Agenda		
A1	Order of Business	Hurlburt
A2	Rules of Conduct	Hurlburt
A3	**(M) Adopt Rules of Conduct**	**Hurlburt**
A4	**(M) Adopt Order of Business**	**Hurlburt**
Section L: Executive Session		
L1	**(M) Appointments**	Hurlburt
Section M: Motions		
M1	**(M) Approval of SCC 2025 Minutes**	**Weisbrod**
M21	**(M) Revision of Ownership Chapter for IMPACT**	**Earley/Tchertchian**
M75	**(M) Updating PPM 6.15.3**	**Kundomal**
M78	**(M) Updating PPM 5.1.5.8**	**Hurlburt**
Section O: Parking Lot		
O1	Parking Lot	All
O3	**(M) Motion to Suspend**	**Hurlburt**

Appointees September 2025

Appointee's Name	Term Begins	Term Ends	Term Length (yr)	Term No.	Committee or ANet	Position Description
Karen Gaines	1/1/26	12/31/26	1	2		OCC - Online Community Coordinator
Lorisha Riley	1/1/26	12/31/28	3	2	Project ACCCESS	Project ACCCESS Program Assistant
Breanne Hooks	1/1/26	12/31/28	3	1	Project ACCCESS	Project ACCCESS Fellow Selection Committee
Crystal Wiggins	1/1/26	12/31/27	2	1	Statistics and Data Science ANet	Chair
Manisha Ranade	1/1/26	12/31/27	2	1	International Mathematics ANet	Chair
Jessica Bernards	1/1/26	12/31/28	3	1	Project ACCCESS	Project ACCCESS Fellow Selection Committee

OWNERSHIP: *Taking Responsibility and Showing Initiative*

You cannot teach a man anything; you can only help him to find it within himself.

~Galileo Galilei

Why did you become a mathematics teacher? Odds are that you found joy in the subject and wanted to share it with others. Perhaps it was because of the beauty found in a formula that explains why a phenomenon occurs in nature. Maybe you are curious and love to solve problems or puzzles. Or, you like the elegance in the language of mathematics and the certainty it brings. As educators, we would like to see a similar passion grow within our students for learning mathematics. ~~Through the second pillar of PROWESS, students' ownership in their own education, will learning take place.~~ Learning will take place when students take ownership in their own education - the second pillar of PROWESS.

~~To spark this interest within our students, both faculty and students first need to have a common understanding of what learning is. One perspective is that learning is both a process and a product. It is an individual, internal, and personal activity. We cannot learn for another person. The learner must take responsibility for learning as it can only reside within the individual (Milton, 1973). By the time students reach our classrooms they often have an improper view of what learning is. They believe in a dualistic ideal that learning is about determining right or wrong instead of realizing that learning can be contextual and relative (Perry, as cited in Thoma, 1993). Too often, they also are waiting for extrinsic motivation instead of relying on their own intrinsic motivation to learn. Several studies have shown students who develop extrinsic motivation do not achieve at as high of levels as those who develop intrinsic motivation (Lemos & Verissimo, 2014; Pulfrey, Buchs, & Butera, 2011). It has also been shown that students with intrinsic motivation pursue subjects to higher levels and are more likely to persist through completion (Stipek, 1993).~~

To cultivate genuine interest in learning among students, it is essential that both faculty and students share a clear, mutual understanding of what learning entails. One valuable perspective views learning as both a process and a product—an individual, internal, and deeply personal endeavor. It is not something one person can do for another. As John Hattie (2009) points out, "It is students themselves, in the end, not teachers, who decide what students will learn." This underscores the importance of understanding students' thinking, their goals, and their reasons for engaging with the material presented in school.

Since learning resides within the individual, students must take ownership of their own learning journey (Milton, 1973). However, many students enter our classrooms holding misconceptions of what learning is. They often view it through a dualistic lens—believing that learning is simply about identifying right and wrong answers—rather than recognizing that knowledge can be contextual, relative, and open to interpretation (Perry, as cited in Thoma, 1993). Additionally, many students often rely on extrinsic motivators, such as grades or rewards, rather than cultivating an internal, intrinsic drive to learn. Several studies have shown that students driven by extrinsic motivation tend to achieve at lower levels than those who are intrinsically motivated (Lemos & Verissimo, 2014; Pulfrey, Buchs, & Butera, 2011). Furthermore, intrinsically motivated students are more likely to engage deeply with content, pursue learning to greater depths, and persist through challenges to completion (Stipek, 1993).

Creating an environment that is conducive to intrinsic motivation can instill student ownership, enhance greater learning, and enable long-term academic persistence.

> *Consider the contrasting stories of two students in a Beginning Algebra class. Both John and Lola enrolled in the class because it was required for their degree programs. John was promised a new car by his father if he completed the course with a grade of B or better. Lola, on the other hand, was a returning student with no such promise made to her. John dropped out of class before midterm whereas Lola completed the class with a grade of A. In this case, extrinsic motivation was not enough to encourage John to even do his homework. Lola understood the value of learning and completed her associate's degree.*

~~As faculty, it is our responsibility to guide students to find this motivation. Instead of luring them with extrinsic motivational processes, which shift their focus to valuing the consequences of task completion, we should assist them to focus on valuing the task itself (Kohn, 1993). However, first, we need to look at what the expectations should be of our students as learners before we investigate how to help them meet these outcomes.~~

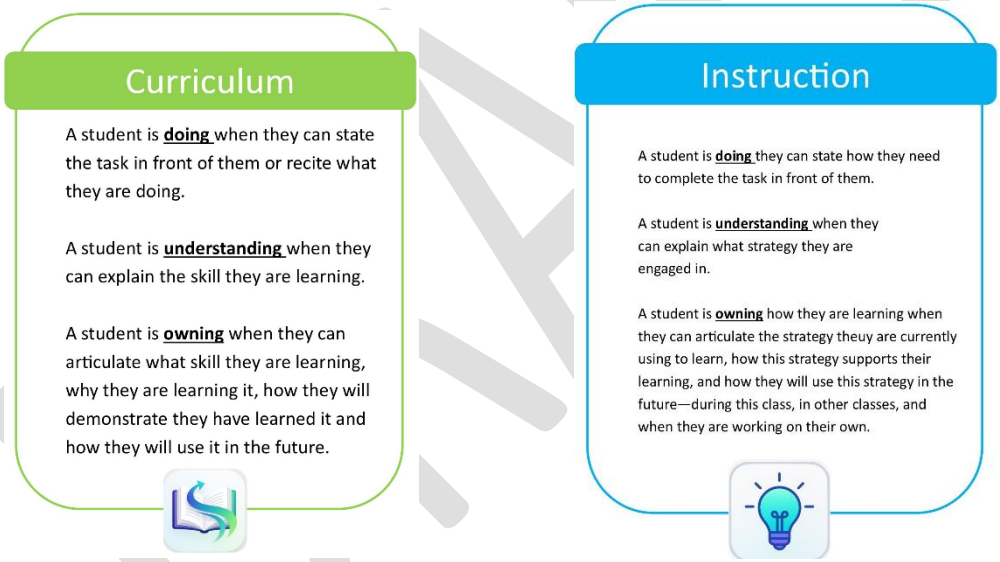
As educators, our primary responsibility is to guide students toward intrinsic motivation—encouraging them to find value and satisfaction in the learning process itself, rather than relying on external rewards that may undermine genuine engagement. Research by Alfie Kohn emphasizes that extrinsic incentives can diminish intrinsic interest in tasks, highlighting the importance of fostering internal motivation (Kohn, 1993). To support this, faculty should actively cultivate inclusive and adaptable learning environments, participate

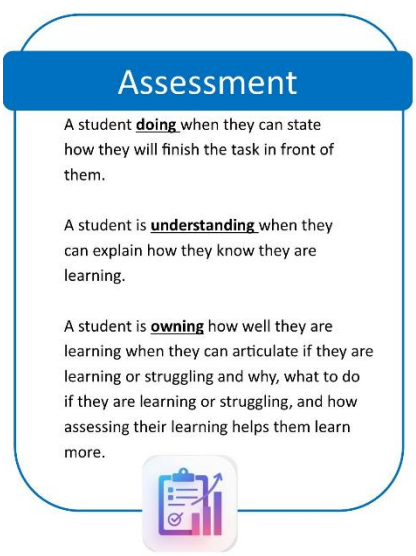
in thoughtful course design, and engage in reflective practices that promote continuous improvement. Institutions and departments play a crucial role by providing necessary resources, professional development opportunities, and comprehensive assessment strategies to enhance teaching effectiveness and student success.

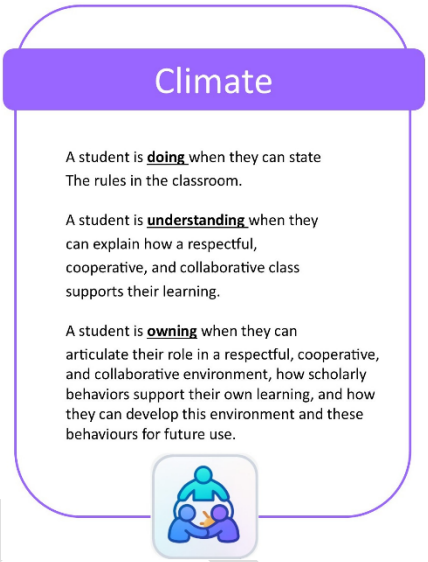
Before implementing these strategies, it's essential to establish clear expectations for students as learners, ensuring they understand their roles and responsibilities in the educational journey.

Student Ownership

For a student's education to be successful, the student must move from *doing* or *understanding* school to *owning* their learning. (Crowe, Kennedy, 2023). Summarizing what these means in terms of curriculum, instruction, assessment, and climate is as follows:







The best faculty who "achieve[ed] remarkable success in helping their students learn in ways that make a sustained, substantial, and positive influence on how those students think, act, and feel" (Bain, 2004, p. 5) do so by cultivating three components of student ownership of learning

1. **Discovery**. An ideal classroom is where students are active participants in formulating conjectures, developing strategies for solving a problem, engaging in investigative tasks, or analyzing data. It is through these guided investigations that learning begins to take place.

2. **Responsibilities**. ~~As students begin the journey of taking ownership of their own learning, they have responsibilities that they may assume on their own and others to which they may need to be directed. It is imperative that students clearly understand the objectives and goals of a course and are aware of the rubrics used to assess the quality of their work. It is a matter of fostering trust between the student and the teacher. This trust is that students can expect that the teacher will provide the assistance needed to accomplish the goals of the course and vice versa, that the teacher can expect that the students take responsibility and will meet the requirements set forth to achieve those goals.~~

   As students embark on the path of taking ownership of their learning, they encounter responsibilities that they may independently assume and others that require guidance. A clear understanding of course objectives and assessment criteria is essential for students to effectively direct their efforts. Engaging students

in the development of respectful, inclusive, and transparent classroom norms fosters a positive educational environment .

When students take ownership of their learning, they become more engaged and contribute to a community characterized by mutual respect and shared learning. This dynamic is underpinned by a foundation of trust between students and faculty. Students trust that faculty will provide the necessary support to achieve course goals, while faculty trust that students will fulfill their responsibilities to meet those objectives. In this way, reciprocal trust transforms the classroom into a space where learners feel valued, supported, and empowered to contribute meaningfully to the learning community.

Arguably, the most important responsibility for the student is meaningful self-assessment. Students must recognize assessment as an integral component of the teaching-learning process and not just a means by which instructors assign a grade to their performance. Feedback garnered from a variety of assessments can help students better understand what constitutes an appropriate-and-complete response to a task and assist them to develop their confidence in performing self-assessments. The ability to assess one's own work effectively is an important life skill, and of great value in the workplace.

Self-assessment is a process in which students reflect on the quality of their work, compare it to explicitly stated criteria, judge how well their work reflects the criteria, and make appropriate revisions. Also, it is a formative process that informs students about what part of their thinking and subsequent work require revisions and improvement. Some strategies (whether prompted by the instructor or initiated by the student) that students may use to develop effective self-assessment practices include

- ~~reflecting on the knowledge they already have that might assist them in new situations~~
- ~~drawing from previous work that may relate to new circumstances~~
- reflecting on prior knowledge and drawing from previous work to use/assist in new situations.
- using graphic organizers, which organize facts, concepts, ideas, or terms in a visual or diagrammatic way so that the relationship between the individual items is made clear

- evaluating their own progress to recognize what they do and do not understand
- using rubrics (when provided) to evaluate their progress during an assessment or activity.

3. Continued Learning. The goal of each student should be deep learning~~: that is, "develop initiative multiple perspectives, think about their own thinking that they tried to understand ideas for themselves; that they attempt to reason with concepts and information they encountered, to use material widely, and to relate it to previous experience and learning"~~ As described in the book *Deep Work,* (Cal Newport 2014 p 22) students will benefit by intentionally scheduling study blocks, reducing distractions, embracing boredom and taking breaks from social media. Signs that students achieve the goal of deep learning would be "that students developed multiple perspectives and the ability to think about their own thinking; that they tried to understand ideas for themselves; that they attempted to reason with the concepts and information they encountered, to use the material widely, and to relate it to previous experience and learning."~~-~~(Bain, 2004, p. 10). A student's journey to meet this goal will encounter accomplishments as well as setbacks. Students need to be able to accept failure or mistakes as an important part of learning. As the entrepreneur Malcolm Forbes (1978) once said, "failure is success if we learn from it." Recent studies have shown that when mistakes are made, the brain grows (Moser, Schroder, Heeter, Moran, & Lee, 2011). One type of response or spark observed in the brain is simply due to the conflict between a correct response and an error; it is not necessary that a person is aware that they have made a mistake. The second response is the reflection of the conscious attention to the mistake. According to Dweck (2006), people with growth mindsets have greater brain activity to follow mistakes. ~~Although such people do not exactly enjoy failure, they are less miserable because they are not defined by their mistakes~~. They understand that the path to success will have failures along the way and they are comfortable facing them, so long as there are opportunities to learn along the way. It is through persistence that brain growth occurs and learning takes place.

When students take initiative of their own learning, the results can sometimes have a positive ripple effect for other students as is demonstrated by Kyela's story.

Kyela, a beautician pursuing her associate's degree, enrolled in a ~~numeric skills~~ basic math class as a result of her performance on the college's placement test. She was understandably anxious about her math abilities, but she took ownership for her learning. As the semester progressed Kyela gradually took responsibility not only for her own learning but for that of the members of her group. Eventually she organized Sunday morning study sessions at the local coffee shop for anyone in the class to attend. As a result of her actions she achieved a grade of A in the course and the average grade in the class exceeded the average grade of the other sections of the same course that semester.

Faculty Fostering Student Ownership

In general, faculty should be working towards empowering students to take ownership of their learning by promoting self-regulated learning. Students should take control of and evaluate their own learning through the phases of task perception, goal setting and planning, implementation, and adaptation (Winne & Hadwin, 2008). Faculty should be guiding and engaging students in activities that foster discovery, responsibilities, and continued learning. According to Mortimer and Scott (2003), there are three tasks for the instructor in the student learning process:

~~1. introduction of concepts~~

~~2. support for the development of meaning~~

~~3. provision of opportunity for transfer of ownership, practice, and application to student~~

-

~~For the first task the instructor must be prepared to use a variety of ways to introduce a concept. The primary focus should be on fostering curiosity within the student. By providing students with open-ended questions or utilizing inquiry-based learning techniques, instructors are supporting the students' intellectual need to understand a concept so that they are better motivated to learn it (Harel, 2013). If done correctly, students will be working on the discovery component of ownership.~~

~~For the second task, the key word is "support". Faculty must be patient, supportive, and available to help when students are frustrated or confused, but still allow them to struggle and make mistakes. It is vital that the instructor does not "do all of the heavy lifting" for the student. When students ask for help, a possible response is "let's think about this for a~~

~~minute… Do you want my brain to grow or do you want to grow your brain today" (Frazier, 2015, para. 13)? Faculty need to know when and how to intervene when work is headed in the wrong direction and be able to use good questioning techniques to redirect students rather than giving them immediate answers. Class activities should guide and direct them to begin to assume responsibility for their own learning. Students must have a variety of opportunities to develop confidence in their abilities.~~

~~When utilizing group work, faculty must make sure that it is not just a way to have work done faster, but that individual ownership is taking place. Consider Beth, an instructor who utilizes the flipped model of teaching so she has opportunities every class period to take on a guiding role while students are engaged in group work. Her role has evolved over time as she has reevaluated what level of ownership the students have in the activities. Initially, her first semester of teaching was just spent answering questions, but in time she began to also do "interventions". As she walked around the room, she pointed out possible errors in logic and asked groups to reexamine their thinking, thus encouraging **group** ownership. However, she realized that was not enough. Now, each semester she works at incorporating ideas that lead to **individual** ownership.~~

~~For the final task, the transfer of ownership to students happens in a variety of ways. Faculty can assist students to take ownership at the beginning of a course by allowing them to have a voice in how the course is structured. For example, Judy, a mathematics instructor, often involves students in the development of her course syllabi (Barkley, 2010). They determine aspects of the syllabus such as expectations and the consequences of not meeting those expectations when doing group work. She also provides them the opportunity to choose from a variety of learning activities that satisfy the course objectives.~~

Introduction of concepts - The instructor must be prepared to use a variety of ways to introduce a concept. The primary focus should be on fostering curiosity within the student. By providing students with open-ended questions or utilizing inquiry-based learning techniques, instructors are supporting the students' intellectual need to understand a concept so that they are better motivated to learn it (Harel, 2013). If done correctly, students will be working on the discovery component of ownership.

Support for the development of meaning - The key word is "support". Faculty must be patient, supportive, and available to help when students are frustrated or confused but still allow them to struggle and make mistakes. "Depriving some students of experiencing struggle robs them of valuable learning opportunities. All students deserve the right to struggle." (Productive math Struggle - SanGiovanni, Katt, Dykema 2020). It is vital that the instructor does not "do all of the heavy lifting" for the student. When students ask for help, a possible response is "let's think about

this for a minute… Do you want my brain to grow or do you want to grow your brain today" (Frazier, 2015, para. 13)? Faculty need to know when and how to intervene when work is headed in the wrong direction and be able to use good questioning techniques to redirect students rather than giving them immediate answers. Class activities should guide and direct them to begin to assume responsibility for their own learning. Students must have a variety of opportunities to develop confidence in their abilities.

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Provision of opportunity for transfer of ownership, practice, and application to student - The transfer of ownership to students happens in a variety of ways. To create a positive classroom climate for college students, it's essential to start on the very first day by shaping their expectations. Involve students in setting clear, respectful, and inclusive ground rules to encourage a sense of ownership and mutual respect. Establish consistency in applying these expectations, while remaining flexible and open to feedback. This approach promotes fairness, fosters engagement, and helps build a supportive learning environment where all students feel valued and heard. By setting the tone early, instructors lay the foundation for a classroom culture rooted in trust, collaboration, and growth. Faculty can assist students to take ownership at the beginning of a course by allowing them to have a voice in how the course is structured. For example, Judy, a mathematics instructor, often involves students in the development of her course syllabi (Barkley, 2010). They determine aspects of the syllabus such as expectations and the consequences of not meeting those expectations when doing group work. She also affords them with the opportunity to choose from a variety of learning activities that satisfy the course objectives.

Throughout a course, it is important that an instructor ensures that students understand the objectives of the course and are able to meet them. One example of how to achieve this is the method that Kevin uses in his classroom.

He has created a checklist of objectives for his students to use as a way to prepare for exams. After finding out (through surveys) that the students were not using them, he looked for other ways to enforce this idea. He made two changes to the checklist. In upper-level classes he added the words "I can" at the beginning of each objective. He required students to look at the checklist at the end of each activity or class period to see where they stand. In his developmental courses, he has students reflect some more; they must check one of three statements for each objective as suggested by Boaler (2016):

- *I can do this independently and explain my solution path(s) to my classmates or teacher.*
- *I can do this independently.*
- *I need more time. I need to see an example to help me (p. 152.)*

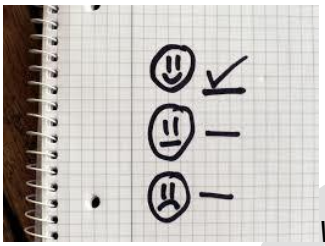
Students hand in the checklist when they take the exam and are then required to reflect on their perception of their knowledge once the exams are handed back.

It is a faculty's responsibility to design activities and assignments that will guide students to master course objectives. Students need to first try out and practice new ideas in familiar situations and then move to applying the knowledge to new and unfamiliar contexts (Mortimer & Scott, 2003). ~~These contexts should include applications that go beyond the typical story problems.~~ Students need to be presented with genuine application problems ~~in a way~~ that require~~s~~ them to determine what technology, techniques, or methods to utilize and how to use them effectively. In an effort to improve success by engaging students in meaningful applications, a community college system in Florida contextualized their Intermediate Algebra and College Algebra courses. Business faculty were involved in the creation of real-world problems upon which the content was built. Mathematics faculty needed the support from business faculty to find realistic and meaningful applications. The success rate of students was 10% above those of students in courses not incorporating these problems.

~~Last,~~ Finally, providing a variety of assessments will help students recognize areas in their learning they need to improve. Feedback garnered from different assessment tasks is vital.

Faculty should design structured **reflection opportunities** to help students assess their progress, adapt learning strategies, and take ownership of their growth. Instead of assigning endless homework problems, it may be more beneficial to ask students to answer some reflection questions, as suggested by Boaler (2016):

- What was the big idea we worked on today?
- What did I learn today?
- What good ideas did I have today?
- In what situations could I use the knowledge I learned today?
- What questions do I have about today's work?
- What new ideas do I have that this lesson made me think about (p. 158)?



We illustrate these suggestions with an example from Barbra. She utilizes emoticons to have students gauge their understanding of a topic. Her quizzes begin with students choosing a smiley face, plain face, or sad face to indicate how they think they will perform. Next, they take the quiz and then indicate (with the same emoticons) their views of their performances. The entire class then goes over the quiz and students correct their work and make comments about what went wrong (or right). Afterwards, they use emoticons once more to indicate their actual performance. Students then write a few statements regarding what they need to do based on their results from the quiz. Most of the responsibility of the assessment is on the student, but Barbra does go over the quizzes and indicates mistakes students may have overlooked. She also praises them for their work and self-assessment as appropriate.

Faculty Ownership

We have taken a brief look at student ownership and ways in which faculty can guide students in the process. Now we focus on full and part-time faculty and how we can take ownership of our roles. When examining the faculty role in education, a large part involves

the other pillars of PROWESS: mathematical proficiency, engagement, and student success. For this part of the discourse, we will examine three key areas in which faculty can take ownership: creating a safe and productive learning environment, taking an active role in course design, and becoming a reflective practitioner.

Learning Environment

The Learning Environment involves instruction and assessment practices intentionally developed to help all students achieve course (as well as individual) goals. It is a place where they experience mathematics with the guidance of faculty. While the word "classroom" is often used to refer to the learning environment, we prefer the broader term "learning environment" to include all settings in which faculty and students interact, including the online environment. First, looking more broadly at the idea of Powerful Learning Environments, Merrill (20~~02~~20) summarizes ~~four characteristics~~ five principles of learning environments that seem to be common in current instructional theories: ~~prior knowledge and experiences of the student must be activated in order to build new knowledge on pre-existing knowledge, new skills or knowledge must be demonstrated to the student through modelling, the student should have the opportunity to apply their new knowledge and skills, and the newly acquired skills and knowledge must be integrated into real-world activities.~~ Problem-Centered (learners are engaged in solving real-world/authentic problems), Activation (existing knowledge is activated as a foundation for new knowledge), Demonstration (new knowledge is demonstrated to the learner), Application (new knowledge is applied by the learner), and Integration (new knowledge is integrated into the learner's world). ~~In general, the learning environment~~

- ~~Incorporates the necessary physical space, materials, technological resources, and support staff who facilitate effective learning of mathematical concepts and skills.~~
- ~~Encourages student-faculty contact.~~
- ~~Incorporates innovative teaching and learning strategies that use technology and activities designed to promote active student engagement, meaningful discourse, and cooperative learning.~~
- ~~Fosters active student engagement in mathematical thinking and encourages student creativity and risk-taking.~~
- ~~Promotes a culture that values the diverse interests and backgrounds of students.~~
- ~~Addresses diverse talents and ways of learning and teaching.~~

- ~~Is designed to be effective in developing PROWESS, which includes increasing students' persistence, grit, and communication skills.~~

~~Narrowing the focus, we suggest four areas of concentration for providing an effective learning environment: method of instruction, teamwork, diversity, and learning outside of the classroom.~~

To implement a powerful learning environment we suggest focusing on these four areas: method of instruction, teamwork, diversity, and learning outside of the classroom.

The ***method of instruction*** is a personal decision for faculty. Instructors should be aware of innovations in the area of instruction and be willing to adjust their methods as appropriate. Any strategy used should:

- ~~Support student engagement with the material, especially considering the diverse learnings needs of the students.~~ Engage students meaningfully with the material, keeping in mind their diverse learning needs.
- ~~Be thought-provoking.~~ Spark curiosity by incorporating thought-provoking content and activities
- ~~Include clear communication and explanation of topics and goals (Cai, Kaiser, Perry & Wong, 2009~~.) Communicate topics and learning goals clearly to help students stay focused and motivated (Cai, Kaiser, Perry & Wong, 2009).
- ~~Be focused on building mastery of the learning outcomes.~~ Center instruction around building true mastery of the intended learning outcomes.
- ~~Use questioning to promote active learning and to measure student understanding.~~ Use purposeful questioning to encourage active participation and assess student understanding
- ~~Incorporate technology that is appropriate for the task at hand.~~ Integrate technology that aligns well with the learning objectives and enhances instruction.
- ~~Use multiple assessment measures (Huba & Freed, 2000~~.) Apply a variety of assessment methods to get a well-rounded view of student progress (Huba & Freed, 2000).
- ~~Provide both formative and summative feedback that are low-stakes.~~ Offer low-stakes, formative and summative feedback that supports ongoing learning and growth.

- ~~Take into consideration changes that might need to be made for distance learning courses.~~ Adapt instructional strategies as needed to ensure effectiveness for different teaching modalities.

The second area of concentration, *teamwork*, is complex but vital. The ability to work in a team structure is among the most valued skills employers need when hiring new employees (Adams, 2014; Herrity, 2025: Wells, 2025). Facilitating successful teamwork requires ~~training on the techniques and justification for the specific type of group work.~~ not only training in specific techniques but also a clear rationale for the chosen approach to group work. Resources such as *Building Thinking Classrooms* (Liljedahl, 2021) offer research-based strategies for forming teams and for engaging the entire class as a single collaborative unit. In this model, knowledge flows freely among students, and mathematics itself—rather than the instructor—becomes the ultimate authority.

Based on work done by Johnson & Johnson (1999), when incorporating group work we suggest five aspects to focus on

- Structure for positive interdependence: Group interaction is necessary for successful resolution of the question or task, and for linking individual success to the success of the group.
- Structure for interaction: Group interactions include discussing solution paths, important concepts, and connections to prior knowledge, as well as facilitating help and words of encouragement when needed.
- Structure individual accountability: Students are held accountable for their share of the work in the group.
- Structure social skills: Group interaction requires interpersonal, social, and collaborative skills. Students must be provided guidance on how to effectively interact in a small group.
- Structure group processing: Group members discuss effectiveness in reaching their goals and in working together.

The third area of concentration when designing a learning environment is *diversity*. Faculty must recognize that diversity manifests itself in a variety of ways: ~~age, gender, ethnicity, socio-economic background, and academic preparation~~. age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, citizenship status, national origin, pregnancy, race, religion, sex, sexual orientation, socio-economic status, or protected veteran status.and academic preparation. To address issues related to diversity, faculty should

- ~~Have high expectations for all students and clearly communicate those expectations (NCTM, 2000; Jamar & Pitts, 2005; Center for Community College Student Engagement [CCCSE], 2008).~~ Set high expectations for all students and communicate them clearly to foster a culture of achievement (NCTM, 2000; Jamar & Pitts, 2005; CCCSE, 2008).

- ~~Use best practices to increase student success rates, which include using diagnostic assessment to counteract poor performance and vary the instructional styles in the classroom (Holloway, 2004~~). Apply proven instructional strategies to boost student success, such as using diagnostic assessments to identify and address learning gaps and incorporating varied teaching approaches (Holloway, 2004).

- ~~Strive to encourage underrepresented groups.~~ Actively support and encourage participation from underrepresented student groups to promote equity in the classroom.

- ~~Consider diverse languages and cultures as assets to mathematical knowledge and highlight contributions made from such groups (Holloway, 2004~~). Recognize and celebrate diverse languages and cultures as valuable assets to mathematical understanding, and highlight contributions from a variety of cultural backgrounds (Holloway, 2004; Ladson-Billings, 2021).

- ~~Advise students about the availability and appropriate use of academic support resources~~. Guide students in locating and making the most of available academic support resources.

- ~~Collaborate with appropriate support service personnel to respond to the needs of students with disabilities.~~ Partner with student support services to meet the individual needs of students with disabilities.

- ~~Be sensitive to situational factors in which many students are balancing family, job, and academic responsibilities; provide constructive suggestions and support for overcoming those challenges~~. Be mindful that many students are balancing multiple responsibilities—such as work, family, and school—and offer encouragement and practical strategies to help them succeed

- ~~Be sensitive to the impact of mathematics anxiety and teach students to employ remedies related to mathematics self-efficacy (Pajares, 1996):~~ Acknowledge the effects of math anxiety and provide students with tools and strategies to build self-confidence and reduce stress (Pajares, 1996).

- ~~Make explicit the importance of mathematics self-efficacy to student success including the four sources of self-efficacy: mastery experiences, vicarious experiences, physiological states, and social persuasions. Understand that there is a cyclical relationship between the four sources (Usher & Pajares, 2006, 2009).~~ Emphasize the critical role of math self-efficacy in student success by discussing its four key sources: mastery experiences, observing others, emotional states, and encouragement—while recognizing how these elements reinforce one another (Usher & Pajares, 2006, 2009).
- ~~Facilitate confidence in students by cultivating new mastery experiences. Since mastery experiences is the best predictor of self-efficacy, faculty need to rebuild mathematical competencies to scaffold learning (Usher & Pajares, 2006, 2009; Zientek, Fong, & Phelps, 2017).~~ Help students build confidence by creating opportunities for mastery experiences, recognizing that these are the most powerful predictors of self-efficacy. Strengthening foundational math skills can lay the groundwork for deeper learning (Usher & Pajares, 2006, 2009; Zientek, Fong, & Phelps, 2017).

The fourth area of concentration highlights the idea that the learning environment is not just what takes place inside the classroom, but also *outside of the classroom*. This encompasses a wide variety of considerations

- ~~Regularly require students to work on mathematics outside the classroom. This will include expecting students to prepare for class as well as to practice what is done in class. Instructors will encourage these behaviors with timely feedback (Huba & Freed, 2000).~~ Expect students to regularly engage with mathematics outside the classroom—this includes coming to class prepared and practicing skills introduced during lessons. Support these habits with timely, constructive feedback (Huba & Freed, 2000).
- ~~Encourage appropriate interaction with students and between students inside and outside of the classroom~~. Promote meaningful interactions with and among students, both during and beyond class time, to build a supportive learning community.
- ~~Encourage explanations of concepts to peers and various audiences such as professionals and laypeople (Angelo, 1993; Huba & Freed, 2000).~~ Encourage students to explain mathematical concepts to peers and to communicate clearly with a range of audiences, from professionals to those without a technical background (Angelo, 1993; Huba & Freed, 2000).

- ~~Provide service-learning opportunities for students in your courses.~~ Incorporate service-learning opportunities that allow students to apply their mathematical knowledge in real-world contexts.Foster undergraduate research.
- Support and promote undergraduate research to deepen student engagement and exploration of mathematical ideas.
- ~~Be available outside of the classroom to assist individual students.~~ Be accessible outside of class to provide individualized support and guidance to students.
- ~~Be involved in the design of and the decision-making about physical spaces that support mathematics instruction (such as tutoring centers).~~ Take part in the planning and decision-making process for physical learning spaces—such as tutoring centers—that enhance mathematics instruction.
- ~~Identify and recommend necessary technology that assists students in exploring and mastering mathematical concepts. Technology should be available and accessible to all students.~~ Recommend and help integrate appropriate technologies that enable students to explore and master mathematical concepts. Ensure that these tools are accessible and equitable for all learners.

Course Design

Most often, course design refers to the length, content, and structure of courses, but in this document, we will examine it in a broader sense to include components of instructional design. The goal of a good course design should be to foster student thinking ~~learning.~~ Decisions about course design should articulate how the curriculum is going to be delivered to students in ways that promote PROWESS. These decisions are best viewed as a joint responsibility by all faculty involved with a course, including a joint decision on ranges of acceptable variation between sections and delivery methods. We provide suggestions (in no particular order) for course design:

- ~~Assure that learning outcomes in mathematics distance learning sections are consistent with those of similar mathematics courses taught in classrooms.~~
- ~~Include a variety of assessment techniques such as performance tasks, interviews, open-ended questions, observations, projects, and portfolios in addition to the traditional paper-and-pencil tests.~~

- ~~Utilize various sources for course materials. These might be traditional textbooks, e-books, or Open Educational Resources; the selection of these materials should be based on criteria related to quality, effectiveness, and affordability.~~
- ~~Offer alternatives for course duration. Traditional semester or quarter length courses should be combined with alternatives to provide the best student experience. This might include co-requisite structures, fast-track courses, and individualized learning.~~
- ~~Faculty should be open to different styles of teaching; effective course design incorporates diverse styles within and across courses.~~
- ~~Provide support for students to develop a more diverse set of learning skills.~~
- ~~Ensure that assignments and assessments address the needs of a wide variety of students, both culturally and physically. (For this purpose, we include learning disabilities in the physical category of diversity.)~~
- ~~Address and correct issues connected to students' misconceptions.~~
- ~~Use learning technology in all mathematics courses to support curricular goals and course outcomes.~~
- ~~Use appropriate technology as a tool to aid students to discover patterns, test conjectures, and validate conclusions.~~
- ~~Use technology that is accessible to all students.~~
- ~~Make available technology applications and software that students may use in other courses as well as their daily lives.~~

Course Design and Structure

- **Align Learning Outcomes Across Modalities.** Ensure that the learning outcomes for online mathematics courses are aligned with those of their in-person counterparts, providing a consistent and high-quality learning experience for all students.
- **Offer Flexible Course Structures.** Support diverse learning needs and paces by offering alternatives to traditional course formats—such as co-requisite models, accelerated options, or personalized learning pathways.
- **Support Diverse Teaching and Learning Styles.** Encourage faculty to embrace a variety of teaching methods and design courses that incorporate multiple

instructional approaches to reach and support all learners and design courses that include multiple means of representation, engagement, and expression.

- **Create Contextual and Interdisciplinary Assignments.** Design tasks that connect mathematics to real-world scenarios and other fields of study, encouraging students to apply their skills in meaningful ways.

Student Learning and Engagement

- **Promote Student Self-Reflection.** Incorporate assignments and feedback opportunities that help students reflect on their learning journey and take ownership of their academic progress.
- **Foster Development of Diverse Learning Skills.** Offer resources and guidance that help students strengthen a broad set of learning strategies, from critical thinking to time management.
- **Address Student Misconceptions.** Actively identify and clarify common misunderstandings to help students build a solid conceptual foundation in mathematics.

Assessment and Feedback

- **Ensure Inclusive and Accessible Assessment Practices.** Develop assessments that are fair and inclusive, taking into account the diverse cultural backgrounds, abilities, and learning styles of all students (Ladson-Billings, 2021).
- **Incorporate Varied Assessment Techniques.** Use a variety of assessment methods—including performance tasks, projects, interviews, and portfolios—alongside traditional exams to give a fuller picture of student understanding.
- **Use a Data-gathering Paradigm.** Utilize observational and conversational data along with traditional assessment to assign grades instead of a traditional point-gathering paradigm. (Liljedahl, 2020).

Resources and Materials

- **Leverage High-Quality and Affordable Course Materials**. Advocate for course materials that are not only academically sound and contribute to modernizing the curriculum but also are affordable and accessible—such as Open Educational Resources and cost-effective textbooks.

Technology Integration

- **Integrate Technology to Support Learning Goals**. Use technology purposefully to reinforce course objectives and help students meet learning outcomes across all modalities of instruction.
- **Employ Technology to Enhance Mathematical Thinking.** Incorporate digital tools that support exploration—helping students discover patterns, test ideas, and build logical reasoning skills.
- **Ensure Technology Accessibility.** Select technologies that are fully accessible to all students, including those with disabilities, to create an inclusive digital learning environment.
- **Provide Transferable Technology Tools.** Offer students access to applications and tools they can continue to use in other courses and beyond the classroom, supporting long-term academic and career success.

Continuous improvement of course design can be achieved by using effective assessments in which faculty identify assessment tools linked to desired student learning outcomes and proceed through a four-step implementation cycle of planning, gathering relevant data and evidence, interpreting them, and using results to make informed instructional decisions. Instructors should participate in the development and assessment of not only individual courses but also how the courses contribute to general education outcomes in mathematics.

Becoming a Reflective Practitioner

Instrumental to faculty ownership is to be a reflective practitioner who examines curriculum and teaching practices to identify areas that need improvement. We offer suggestions for becoming a reflective practitioner:

- ~~Consider whether students are taking ownership of learning in the classroom. To do so requires a clear understanding of what ownership means and how to assess it.~~ Reflect on whether students are actively taking ownership of their learning. This involves clearly defining what ownership looks like and identifying methods to assess it effectively.
- ~~Continually review courses and curricula and determine processes for continuous improvement.~~ Regularly review courses and curricula to identify areas for ongoing improvement and innovation.

- ~~Keep abreast with current research on learning and teaching, and incorporate findings in courses.~~ Stay informed about current research in teaching and learning, and apply evidence-based practices to enhance course design and instruction.
- Engage in continuous professional development to stay current with educational research, teaching strategies, and technological advancements that support effective instruction.
- Explore and adopt emerging tools—such as artificial intelligence—to personalize learning, deliver timely feedback, and improve instructional efficiency, while upholding principles of equity and academic integrity.
- ~~Faculty should be encouraged to craft and try an action research project.~~ Design and implement action research projects as a means of investigating and improving their teaching practices.
- ~~Foster a growth mindset in students.~~ Promote a growth mindset among students by creating environments that value effort, persistence, and learning from mistakes .
- ~~Faculty should examine teaching practices through four complementary lenses— autobiographical experiences as learners, students' views, colleagues' perceptions, and educational literature (Brookfield, 2002).~~ Use multiple perspectives to examine and improve teaching practices, including personal experiences as a learner, student feedback, peer observations, and insights from educational literature (Brookfield, 2002).
- ~~Faculty should be encouraged to share ideas with each other. This can be done at the department level through monthly faculty meetings where participants can take turns to share information about specific courses, or general strategies on teaching and learning. New ideas can also be acquired through professional conferences, or on IMPACT Live!~~ Contribute to a culture of collaboration and idea-sharing among faculty. This can be facilitated through departmental meetings where instructors rotate presenting on specific courses or teaching strategies. Additional professional growth opportunities include attending conferences or on IMPACT Live! or communities of practice.

Department and Institution Ownership

As full and part-time faculty take ownership of individual responsibilities for the learning environment, course design, curriculum, and assessment, it is the role of mathematics departments and institutions to support faculty in their teaching. By faculty uniting as a department, they are more likely to influence their institutions into listening to and acting upon the needs of the faculty. The institution needs to work with the faculty to determine the best course of action given the resources that can be made available.

One area that departments and institutions have the most influence over is in providing a supportive learning environment consisting of contemporary classrooms, mathematics tutoring labs, learning centers, counselors, and service for students with disabilities, to name a few. Learning environments should be adaptable to the needs and characteristics of students. Classroom layouts, which include furniture in the case of traditional settings, the design of virtual courses, and technology resources for both, all contribute to the learning of mathematics. As such, departments and institutions should

- ~~Supply the necessary equipment and training to create classroom environments that maximize the learning of mathematics.~~ Provide the equipment and training faculty need to create engaging, effective classroom environments that support deep mathematical learning.
- ~~Ensure that students have access to any needed technology, such as computer software and hardware, digital recorders, calculators, and videos.~~ Ensure all students have access to essential technology—such as computers, software, calculators, digital recorders, and educational videos—to support their success.
- ~~Design classrooms (real and virtual) that follow guidelines, such as those addressed in Universal Design for Learning (CAST, 2011).~~ Design both physical and virtual classrooms with accessibility in mind, following principles such as those outlined in Universal Design for Learning (CAST, 2011).
- ~~Support best practices in face-to-face, online, and hybrid/blended classroom~~ Promote and support effective instructional practices across all learning formats—face-to-face, online, and hybrid/blended classrooms.
- Collaborate with faculty to make informed course placement decisions that best support student learning and success (AMATYC Position Statement).
- Offer ongoing professional development for all faculty, with a focus on encouraging student ownership of the learning process.

- Ensure faculty can engage in all phases of action research (planning, action, observation, and reflection, with the ultimate goal of improving teaching practices and student outcomes) to improve instruction.

~~Departments and institutions must create environments that support both learning and social interaction. Learning centers should be welcoming, accessible, and staffed with well-trained tutors. Departments and institutions should~~ Departments and institutions must create environments that nurture both academic learning and a strong sense of community. Learning centers should serve as inclusive and welcoming spaces where students not only receive academic support but also feel connected, encouraged, and valued. These centers play a vital role in fostering collaboration, peer interaction, and confidence-building—all of which contribute to student success. To promote this supportive atmosphere, departments and institutions should:

- ~~Provide adequate space and resources for peer and professional tutoring as well as mathematics resource centers~~. Provide adequate space and resources for peer and professional tutoring, as well as mathematics resource centers that invite collaboration and sustained engagement.
- ~~Have strict requirements for tutors (for example, they are only to tutor courses for which they are qualified~~ Set clear qualifications for tutors to ensure they are only supporting courses in which they have demonstrated proficiency, maintaining the integrity of academic support.
- ~~Establish sufficient training opportunities for mathematics tutors, supplemental instructors, and student support staff.~~ Establish robust training programs for mathematics tutors, peer leaders in supplemental instruction courses, and other student support staff to equip them with the skills needed to assist students effectively and empathetically.
- ~~Offer workshops for students that include (but are not limited to) mathematics study skills, anxiety reduction, and technology usage~~. Offer student-centered workshops that focus on essential academic and personal skills, including math-specific study strategies, managing math anxiety, and effective use of technology.
- ~~Make learning resources available at times suitable for students (including nights and weekends)~~. Ensure that learning resources and support services are accessible at a variety of times—including evenings and weekends—to meet the diverse scheduling needs of students.

Another area that departments and institutions have the most influence over is the instructional materials that faculty use in their classes. The purpose of mathematics courses and programs in college is to develop students' mathematical proficiency with the intention of preparing them for other courses and the workplace. Departments and institutions must oversee curriculum development and assessment in mathematics courses and programs. They must ensure that decisions are based on the needs of the local student population but that results also align and agree with national trends and visions as well as curricula at transfer institutions.

A curriculum must be designed for today's students and tomorrow's society. It must effectively meet the needs of as many academic paths and disciplines as possible. In particular, attention should be paid to the influence of technology, research on student learning, mathematics content, and skills needed for successful careers and responsible citizenship. Thus, departments and institutions should

- ~~Work with the faculty to determine outcomes for each course, while conversing with outside sources such universities, businesses, legislatures, and national organizations.~~ Collaborate with all faculty to define clear and meaningful learning outcomes for each course, while also engaging with external stakeholders—such as universities, employers, legislators, and national organizations—to ensure relevance and alignment.
- ~~Ensure that outcomes in the developmental mathematics program include quantitative literacy, which is necessary for student success in future college-level courses.~~ Ensure that developmental mathematics courses include outcomes that build quantitative literacy, equipping students with essential skills for success in future college-level coursework.
- ~~Encourage collaboration among departments regarding instruction and assessment of mathematics outcomes embedded in non-mathematics courses.~~ Promote cross-departmental collaboration to support consistent instruction and assessment of mathematics-related outcomes in non-mathematics courses.
- ~~Implement periodic reviews and redesign of student learning outcomes.~~ Conduct regular reviews and updates of student learning outcomes to keep them responsive to changing educational and professional needs.
- ~~Evaluate placement and prerequisite requirements to align with course outcomes.~~ Review placement practices and prerequisite structures to ensure they align with course content and support student progress.

The next area in which departments and institutions must recognize their responsibility and role is in fostering and providing professional development opportunities by the establishment of an effective professional development program. Participation in professional development activities has a measurable impact on teaching. Keys to providing an effective professional development program include (Morley, Jamie & Zutes, Spring, n.d.)

- ~~obtaining faculty engagement and ownership~~
- ~~making the process easy to administer~~
- ~~tying it to the Annual Performance Evaluation~~
- ~~being consistent and flexible~~
- ~~rewarding active participation~~
- ~~encouraging faculty with similar goals to attend activities together~~
- ~~making all forms electronic, easy for faculty to modify and easy for managers to track~~
- ~~creating a faculty portfolio location on employee portal or LMS.~~
- **Connection to Evaluations:** Linking professional development to annual performance reviews helps keep it meaningful and ensures everyone stays on track and accountable.
- **Consistency and Flexibility**: Programs should be consistently applied yet flexible enough to accommodate individual faculty needs and schedules.
- **Recognition and Rewards**: Active participation in development activities should be acknowledged and rewarded to encourage engagement.
- **Collaborative Learning**: Encouraging faculty with similar goals to participate in activities together fosters a collaborative learning environment.
- **Streamlined Processes**: Utilize electronic forms and platforms to simplify documentation and tracking of development activities.

The final area that departments and institutions need to take ownership in is that of assessment. Curriculum assessment provides mathematics departments with data to make informed decisions about course content and student learning. It is an ongoing process by which a college or department assesses what mathematics students know at

the end of their course or program. Results should be analyzed extensively and discussed, as well utilized to revise and improve curriculum and courses. Departments and institutions should use the characteristics of action research to facilitate the:

- ~~involve full-time and part-time faculty in designing and implementing course and program assessments~~ Engagement of all faculty in the design and implementation of course and program-level assessments to ensure shared ownership and diverse perspectives.
- ~~link department-wide assessment instruments to course outcomes~~ Alignment of department-wide assessment tools with clearly defined course outcomes to maintain consistency and focus.
- ~~assess courses frequently~~ Assessments of courses regularly to monitor student progress and instructional effectiveness.
- ~~plan for and conduct periodic assessment of all mathematics course outcomes~~ Scheduling and carrying out of periodic evaluations of learning outcomes across all mathematics courses to support continuous improvement.
- ~~analyze assessment data and use the results to improve student learning~~ Analysis of assessment results thoughtfully and use the insights to inform teaching strategies and enhance student learning experiences.
- ~~retain records relating to various course-wide interventions to review and reflect upon.~~ Maintenance of documentation of course-wide interventions to support reflection, track progress, and guide future improvements.
- Review and update the curriculum regularly to ensure that courses reflect current standards and the evolving needs of a modern mathematics program.

Working Together

Students entering two-year colleges bring with them a variety of ideas of what learning is and what their role is in order to be as a successful student. ~~They, as well as faculty, departments, and institutions, should assume ownership in their respective roles, yet work collaboratively toward the same goal of academic success. Opening effective continuing lines of communication is key to each group's ability to take ownership of their role.~~ Fostering a culture of shared responsibility and proactive engagement among faculty, staff, and institutional leaders is essential to creating meaningful change in mathematics education. By working collaboratively—supporting one another, setting clear expectations, implementing thoughtful practices, and embracing innovation—we can create inclusive,

student-centered environments that promote academic success and personal growth. When each member of the educational community takes initiative and ownership, we build a stronger, more responsive program that benefits not only our students but also the broader institution and society.

Are you looking for ways to heighten your ownership of your role as a member of the mathematical community? Would you like to learn about more ways to foster ownership in your students? Do you already have great information or activities involving faculty or student ownership? Head to ~~IMPACT Live!~~ myAMATYC and find innovations your colleagues are using or contribute innovations and ideas of your own.

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OWNERSHIP: *Taking Responsibility and Showing Initiative*

You cannot teach a man anything; you can only help him to find it within himself.

~Galileo Galilei

Why did you become a mathematics teacher? Odds are that you found joy in the subject and wanted to share it with others. Perhaps it was because of the beauty found in a formula that explains why a phenomenon occurs in nature. Maybe you are curious and love to solve problems or puzzles. Or, you like the elegance in the language of mathematics and the certainty it brings. As educators, we would like to see a similar passion grow within our students for learning mathematics. Learning will take place when students take ownership in their own education - the second pillar of PROWESS.

To cultivate genuine interest in learning among students, it is essential that both faculty and students share a clear, mutual understanding of what learning entails. One valuable perspective views learning as both a process and a product—an individual, internal, and deeply personal endeavor. It is not something one person can do for another. As John Hattie (2009) points out, "It is students themselves, in the end, not teachers, who decide what students will learn." This underscores the importance of understanding students' thinking, their goals, and their reasons for engaging with the material presented in school.

Since learning resides within the individual, students must take ownership of their own learning journey (Milton, 1973). However, many students enter our classrooms holding misconceptions of what learning is. They often view it through a dualistic lens—believing that learning is simply about identifying right and wrong answers—rather than recognizing that knowledge can be contextual, relative, and open to interpretation (Perry, as cited in Thoma, 1993). Additionally, many students often rely on extrinsic motivators, such as grades or rewards, rather than cultivating an internal, intrinsic drive to learn. Several studies have shown that students driven by extrinsic motivation tend to achieve at lower levels than those who are intrinsically motivated (Lemos & Verissimo, 2014; Pulfrey, Buchs, & Butera, 2011). Furthermore, intrinsically motivated students are more likely to engage deeply with content, pursue learning to greater depths, and persist through challenges to completion (Stipek, 1993).

Creating an environment that is conducive to intrinsic motivation can instill student ownership, enhance greater learning, and enable long-term academic persistence.

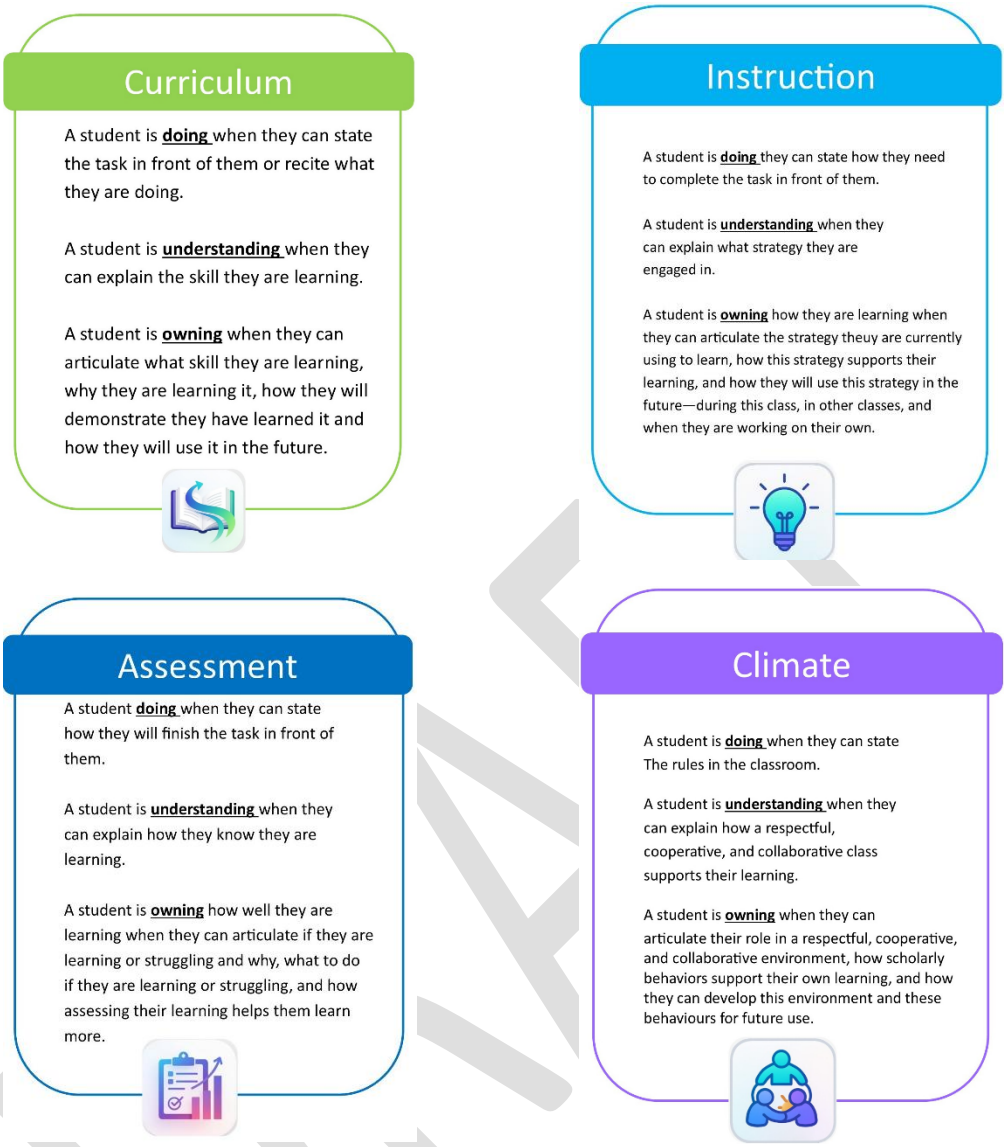
> *Consider the contrasting stories of two students in a Beginning Algebra class. Both John and Lola enrolled in the class because it was required for their degree programs. John was promised a new car by his father if he completed the course with a grade of B or better. Lola, on the other hand, was a returning student with no such promise made to her. John dropped out of class before midterm whereas Lola completed the class with a grade of A. In this case, extrinsic motivation was not enough to encourage John to even do his homework. Lola understood the value of learning and completed her associate's degree.*

As educators, our primary responsibility is to guide students toward intrinsic motivation—encouraging them to find value and satisfaction in the learning process itself, rather than relying on external rewards that may undermine genuine engagement. Research by Alfie Kohn emphasizes that extrinsic incentives can diminish intrinsic interest in tasks, highlighting the importance of fostering internal motivation (Kohn, 1993). To support this, faculty should actively cultivate inclusive and adaptable learning environments, participate in thoughtful course design, and engage in reflective practices that promote continuous improvement. Institutions and departments play a crucial role by providing necessary resources, professional development opportunities, and comprehensive assessment strategies to enhance teaching effectiveness and student success.

Before implementing these strategies, it's essential to establish clear expectations for students as learners, ensuring they understand their roles and responsibilities in the educational journey.

Student Ownership

For a student's education to be successful, the student must move from *doing* or *understanding* school to *owning* their learning. (Crowe, Kennedy, 2023). Summarizing what these means in terms of curriculum, instruction, assessment, and climate is as follows:



The best faculty who "achieve[ed] remarkable success in helping their students learn in ways that make a sustained, substantial, and positive influence on how those students think, act, and feel" (Bain, 2004, p. 5) do so by cultivating three components of student ownership of learning

1. Discovery. An ideal classroom is where students are active participants in formulating conjectures, developing strategies for solving a problem, engaging in investigative tasks, or analyzing data. It is through these guided investigations that learning begins to take place.

2. Responsibilities. As students embark on the path of taking ownership of their learning, they encounter responsibilities that they may independently assume and

others that require guidance. A clear understanding of course objectives and assessment criteria is essential for students to effectively direct their efforts. Engaging students in the development of respectful, inclusive, and transparent classroom norms fosters a positive educational environment .

When students take ownership of their learning, they become more engaged and contribute to a community characterized by mutual respect and shared learning. This dynamic is underpinned by a foundation of trust between students and faculty. Students trust that faculty will provide the necessary support to achieve course goals, while faculty trust that students will fulfill their responsibilities to meet those objectives. In this way, reciprocal trust transforms the classroom into a space where learners feel valued, supported, and empowered to contribute meaningfully to the learning community.

Arguably, the most important responsibility for the student is meaningful self-assessment. Students must recognize assessment as an integral component of the teaching-learning process and not just a means by which instructors assign a grade to their performance. Feedback garnered from a variety of assessments can help students better understand what constitutes an appropriate-and-complete response to a task and assist them to develop their confidence in performing self-assessments. The ability to assess one's own work effectively is an important life skill, and of great value in the workplace.

Self-assessment is a process in which students reflect on the quality of their work, compare it to explicitly stated criteria, judge how well their work reflects the criteria, and make appropriate revisions. Also, it is a formative process that informs students about what part of their thinking and subsequent work require revisions and improvement. Some strategies (whether prompted by the instructor or initiated by the student) that students may use to develop effective self-assessment practices include

- reflecting on prior knowledge and drawing from previous work to use/assist in new situations
- using graphic organizers, which organize facts, concepts, ideas, or terms in a visual or diagrammatic way so that the relationship between the individual items is made clear
- evaluating their own progress to recognize what they do and do not understand

- using rubrics (when provided) to evaluate their progress during an assessment or activity.

3. Continued Learning. The goal of each student should be deep learning. As described in the book *Deep Work* (Cal Newport 2014 p 22), students will benefit by intentionally scheduling study blocks, reducing distractions, embracing boredom and taking breaks from social media. Signs that students achieve the goal of deep learning would be "that students developed multiple perspectives and the ability to think about their own thinking; that they tried to understand ideas for themselves; that they attempted to reason with the concepts and information they encountered, to use the material widely, and to relate it to previous experience and learning." (Bain, 2004, p. 10). A student's journey to meet this goal will encounter accomplishments as well as setbacks. Students need to be able to accept failure or mistakes as an important part of learning. As the entrepreneur Malcolm Forbes (1978) once said, "failure is success if we learn from it." Recent studies have shown that when mistakes are made, the brain grows (Moser, Schroder, Heeter, Moran, & Lee, 2011). One type of response or spark observed in the brain is simply due to the conflict between a correct response and an error; it is not necessary that a person is aware that they have made a mistake. The second response is the reflection of the conscious attention to the mistake. According to Dweck (2006), people with growth mindsets have greater brain activity to follow mistakes. They understand that the path to success will have failures along the way and they are comfortable facing them, so long as there are opportunities to learn along the way. It is through persistence that brain growth occurs and learning takes place.

When students take initiative of their own learning, the results can sometimes have a positive ripple effect for other students as is demonstrated by Kyela's story.

Kyela, a beautician pursuing her associate's degree, enrolled in a basic math class as a result of her performance on the college's placement test. She was understandably anxious about her math abilities, but she took ownership for her learning. As the semester progressed Kyela gradually took responsibility not only for her own learning but for that of the members of her group. Eventually she organized Sunday morning study sessions at the local coffee shop for anyone in the class to attend. As a result of her actions she achieved a grade of A in the course and the

average grade in the class exceeded the average grade of the other sections of the same course that semester.

Faculty Fostering Student Ownership

In general, faculty should be working towards empowering students to take ownership of their learning by promoting self-regulated learning. Students should take control of and evaluate their own learning through the phases of task perception, goal setting and planning, implementation, and adaptation (Winne & Hadwin, 2008). Faculty should be guiding and engaging students in activities that foster discovery, responsibilities, and continued learning. According to Mortimer and Scott (2003), there are three tasks for the instructor in the student learning process:

Introduction of concepts - The instructor must be prepared to use a variety of ways to introduce a concept. The primary focus should be on fostering curiosity within the student. By providing students with open-ended questions or utilizing inquiry-based learning techniques, instructors are supporting the students' intellectual need to understand a concept so that they are better motivated to learn it (Harel, 2013). If done correctly, students will be working on the discovery component of ownership.

Support for the development of meaning - The key word is "support". Faculty must be patient, supportive, and available to help when students are frustrated or confused but still allow them to struggle and make mistakes. "Depriving some students of experiencing struggle robs them of valuable learning opportunities. All students deserve the right to struggle." (Productive math Struggle - SanGiovanni, Katt, Dykema 2020). It is vital that the instructor does not "do all of the heavy lifting" for the student. When students ask for help, a possible response is "let's think about this for a minute... Do you want my brain to grow or do you want to grow your brain today" (Frazier, 2015, para. 13)? Faculty need to know when and how to intervene when work is headed in the wrong direction and be able to use good questioning techniques to redirect students rather than giving them immediate answers. Class activities should guide and direct them to begin to assume responsibility for their own learning. Students must have a variety of opportunities to develop confidence in their abilities.

When utilizing group work, faculty must make sure that it is not just a way to get work done faster, but that individual ownership is taking place. Consider Beth, an instructor who utilizes the flipped model of teaching, so she has opportunities every class period to take on a guiding role while students are engaged in group work. Her role has evolved over time as she has reevaluated what level of ownership the students have in the activities. Initially, her first semester of teaching was just spent answering questions, but in time she began to also do "interventions". As she walked around the room, she pointed out possible errors in logic and asked groups to reexamine their thinking, thus encouraging group ownership. However, she realized that was not enough. Now, each semester she works at incorporating ideas that lead to individual ownership.

Provision of opportunity for transfer of ownership, practice, and application to student - The transfer of ownership to students happens in a variety of ways. To create a positive classroom climate for college students, it's essential to start on the very first day by shaping their expectations. Involve students in setting clear, respectful, and inclusive ground rules to encourage a sense of ownership and mutual respect. Establish consistency in applying these expectations, while remaining flexible and open to feedback. This approach promotes fairness, fosters engagement, and helps build a supportive learning environment where all students feel valued and heard. By setting the tone early, instructors lay the foundation for a classroom culture rooted in trust, collaboration, and growth. Faculty can assist students to take ownership at the beginning of a course by allowing them to have a voice in how the course is structured. For example, Judy, a mathematics instructor, often involves students in the development of her course syllabi (Barkley, 2010). They determine aspects of the syllabus such as expectations and the consequences of not meeting those expectations when doing group work. She also affords them the opportunity to choose from a variety of learning activities that satisfy the course objectives.

Throughout a course, it is important that an instructor ensures that students understand the objectives of the course and are able to meet them. One example of how to achieve this is the method that Kevin uses in his classroom.

He has created a checklist of objectives for his students to use as a way to prepare for exams. After finding out (through surveys) that the students were not using them, he looked for other ways to enforce this idea. He made two changes to the checklist. In upper-level classes he added the words "I can" at the beginning of each objective. He required students to look at the checklist at the end of each activity or class period to see where they stand. In his developmental courses, he has students reflect some more; they must check one of three statements for each objective as suggested by Boaler (2016):

- *I can do this independently and explain my solution path(s) to my classmates or teacher.*
- *I can do this independently.*
- *I need more time. I need to see an example to help me (p. 152.)*

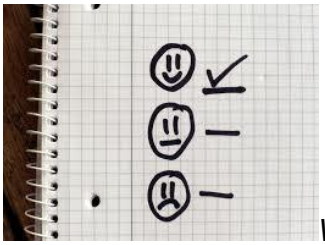
Students hand in the checklist when they take the exam and are then required to reflect on their perception of their knowledge once the exams are handed back.

It is a faculty's responsibility to design activities and assignments that will guide students to master course objectives. Students need to first try out and practice new ideas in familiar situations and then move to applying the knowledge to new and unfamiliar contexts (Mortimer & Scott, 2003). Students need to be presented with genuine application problems that require them to determine what technology, techniques, or methods to utilize and how to use them effectively. In an effort to improve success by engaging students in meaningful applications, a community college system in Florida contextualized their Intermediate Algebra and College Algebra courses. Business faculty were involved in the creation of real-world problems upon which the content was built. Mathematics faculty needed the support from business faculty to find realistic and meaningful applications. The success rate of students was 10% above those of students in courses not incorporating these problems.

Finally, providing a variety of assessments will help students recognize areas in their learning they need to improve. Feedback garnered from different assessment tasks is vital. Faculty should design structured reflection opportunities to help students assess their progress, adapt learning strategies, and take ownership of their growth. Instead of assigning endless homework problems, it may be more beneficial to ask students to answer some reflection questions, as suggested by Boaler (2016):

- What was the big idea we worked on today?

- What did I learn today?
- What good ideas did I have today?
- In what situations could I use the knowledge I learned today?
- What questions do I have about today's work?
- What new ideas do I have that this lesson made me think about (p. 158)?



We illustrate these suggestions with an example from Barbra. She utilizes emoticons to have students gauge their understanding of a topic. Her quizzes begin with students choosing a smiley face, plain face, or sad face to indicate how they think they will perform. Next, they take the quiz and then indicate (with the same emoticons) their views of their performances. The entire class then goes over the quiz and students correct their work and make comments about what went wrong (or right). Afterwards, they use emoticons once more to indicate their actual performance. Students then write a few statements regarding what they need to do based on their results from the quiz. Most of the responsibility of the assessment is on the student, but Barbra does go over the quizzes and indicates mistakes students may have overlooked. She also praises them for their work and self-assessment as appropriate.

Faculty Ownership

We have taken a brief look at student ownership and ways in which faculty can guide students in the process. Now we focus on full and part-time faculty and how we can take ownership of our roles. When examining the faculty role in education, a large part involves the other pillars of PROWESS: mathematical proficiency, engagement, and student success. For this part of the discourse, we will examine three key areas in which faculty can take ownership: creating a safe and productive learning environment, taking an active role in course design, and becoming a reflective practitioner.

Learning Environment

The Learning Environment involves instruction and assessment practices intentionally developed to help all students achieve course (as well as individual) goals. It is a place where they experience mathematics with the guidance of faculty. While the word "classroom" is often used to refer to the learning environment, we prefer the broader term "learning environment" to include all settings in which faculty and students interact, including the online environment. First, looking more broadly at the idea of Powerful Learning Environments, Merrill (2020) summarizes five principles of learning environments that seem to be common in current instructional theories: Problem-Centered (learners are engaged in solving real-world/authentic problems), Activation (existing knowledge is activated as a foundation for new knowledge), Demonstration (new knowledge is demonstrated to the learner), Application (new knowledge is applied by the learner), and Integration (new knowledge is integrated into the learner's world).

To implement a powerful learning environment we suggest focusing on these four areas: method of instruction, teamwork, diversity, and learning outside of the classroom.

The *method of instruction* is a personal decision for faculty. Instructors should be aware of innovations in the area of instruction and be willing to adjust their methods as appropriate. Any strategy used should:

- Engage students meaningfully with the material, keeping in mind their diverse learning needs.
- Spark curiosity by incorporating thought-provoking content and activities.
- Communicate topics and learning goals clearly to help students stay focused and motivated (Cai, Kaiser, Perry & Wong, 2009).
- Center instruction around building true mastery of the intended learning outcomes.
- Use purposeful questioning to encourage active participation and assess student understanding.
- Integrate technology that aligns well with the learning objectives and enhances instruction.
- Apply a variety of assessment methods to get a well-rounded view of student progress (Huba & Freed, 2000).
- Offer low-stakes, formative and summative feedback that supports ongoing learning and growth.
- Adapt instructional strategies as needed to ensure effectiveness for different teaching modalities

The second area of concentration, *teamwork*, is complex but vital. The ability to work in a team structure is among the most valued skills employers need when hiring new employees (Adams, 2014; Herrity, 2025: Wells, 2025). Facilitating successful teamwork requires not only training in specific techniques but also a clear rationale for the chosen approach to group work. Resources such as *Building Thinking Classrooms* (Liljedahl, 2021) offer research-based strategies for forming teams and for engaging the entire class as a single collaborative unit. In this model, knowledge flows freely among students, and mathematics itself—rather than the instructor—becomes the ultimate authority.

Based on work done by Johnson & Johnson (1999), when incorporating group work we suggest five aspects to focus on

- Structure for positive interdependence: Group interaction is necessary for successful resolution of the question or task, and for linking individual success to the success of the group.
- Structure for interaction: Group interactions include discussing solution paths, important concepts, and connections to prior knowledge, as well as facilitating help and words of encouragement when needed.
- Structure individual accountability: Students are held accountable for their share of the work in the group.
- Structure social skills: Group interaction requires interpersonal, social, and collaborative skills. Students must be provided guidance on how to effectively interact in a small group.
- Structure group processing: Group members discuss effectiveness in reaching their goals and in working together.

The third area of concentration when designing a learning environment is *diversity*. Faculty must recognize that diversity manifests itself in a variety of ways: age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, citizenship status, national origin, pregnancy, race, religion, sex, sexual orientation, socio-economic status, or protected veteran status.and academic preparation. To address issues related to diversity, faculty should

- Set high expectations for all students and communicate them clearly to foster a culture of achievement (NCTM, 2000; Jamar & Pitts, 2005; CCCSE, 2008).
- Apply proven instructional strategies to boost student success, such as using diagnostic assessments to identify and address learning gaps and incorporating varied teaching approaches (Holloway, 2004).

- Actively support and encourage participation from underrepresented student groups to promote equity in the classroom.
- Recognize and celebrate diverse languages and cultures as valuable assets to mathematical understanding, and highlight contributions from a variety of cultural backgrounds (Holloway, 2004; Ladson-Billings, 2021).
- Guide students in locating and making the most of available academic support resources.
- Partner with student support services to meet the individual needs of students with disabilities.
- Be mindful that many students are balancing multiple responsibilities—such as work, family, and school—and offer encouragement and practical strategies to help them succeed.
- Acknowledge the effects of math anxiety and provide students with tools and strategies to build self-confidence and reduce stress (Pajares, 1996).
- Emphasize the critical role of math self-efficacy in student success by discussing its four key sources: mastery experiences, observing others, emotional states, and encouragement—while recognizing how these elements reinforce one another (Usher & Pajares, 2006, 2009).
- Help students build confidence by creating opportunities for mastery experiences, recognizing that these are the most powerful predictors of self-efficacy. Strengthening foundational math skills can lay the groundwork for deeper learning (Usher & Pajares, 2006, 2009; Zientek, Fong, & Phelps, 2017).

The fourth area of concentration highlights the idea that the learning environment is not just what takes place inside the classroom, but also *outside of the classroom.* This encompasses a wide variety of considerations

- Expect students to regularly engage with mathematics outside the classroom—this includes coming to class prepared and practicing skills introduced during lessons. Support these habits with timely, constructive feedback (Huba & Freed, 2000).
- Promote meaningful interactions with and among students, both during and beyond class time, to build a supportive learning community.
- Encourage students to explain mathematical concepts to peers and to communicate clearly with a range of audiences, from professionals to those without a technical background (Angelo, 1993; Huba & Freed, 2000).

- Incorporate service-learning opportunities that allow students to apply their mathematical knowledge in real-world contexts.
- Support and promote undergraduate research to deepen student engagement and exploration of mathematical ideas.
- Be accessible outside of class to provide individualized support and guidance to students.
- Take part in the planning and decision-making process for physical learning spaces—such as tutoring centers—that enhance mathematics instruction.
- Recommend and help integrate appropriate technologies that enable students to explore and master mathematical concepts. Ensure that these tools are accessible and equitable for all learners.

Course Design

Most often, course design refers to the length, content, and structure of courses, but in this document, we will examine it in a broader sense to include components of instructional design. The goal of a good course design should be to foster student thinking. Decisions about course design should articulate how the curriculum is going to be delivered to students in ways that promote PROWESS. These decisions are best viewed as a joint responsibility by all faculty involved with a course, including a joint decision on ranges of acceptable variation between sections and delivery methods. We provide suggestions (in no particular order) for course design:

Course Design and Structure

- Align Learning Outcomes Across Modalities. Ensure that the learning outcomes for online mathematics courses are aligned with those of their in-person counterparts, providing a consistent and high-quality learning experience for all students.
- O**ff**er Flexible Course Structures. Support diverse learning needs and paces by offering alternatives to traditional course formats—such as co-requisite models, accelerated options, or personalized learning pathways.
- Support Diverse Teaching and Learning Styles. Encourage faculty to embrace a variety of teaching methods and design courses that incorporate multiple

instructional approaches to reach and support all learners and design courses that include multiple means of representation, engagement, and expression.

- Create Contextual and Interdisciplinary Assignments. Design tasks that connect mathematics to real-world scenarios and other fields of study, encouraging students to apply their skills in meaningful ways.

Student Learning and Engagement

- Promote Student Self-Reflection. Incorporate assignments and feedback opportunities that help students reflect on their learning journey and take ownership of their academic progress.
- Foster Development of Diverse Learning Skills. Offer resources and guidance that help students strengthen a broad set of learning strategies, from critical thinking to time management.
- Address Student Misconceptions. Actively identify and clarify common misunderstandings to help students build a solid conceptual foundation in mathematics.

Assessment and Feedback

- Ensure Inclusive and Accessible Assessment Practices. Develop assessments that are fair and inclusive, taking into account the diverse cultural backgrounds, abilities, and learning styles of all students (Ladson-Billings, 2021).
- Incorporate Varied Assessment Techniques. Use a variety of assessment methods—including performance tasks, projects, interviews, and portfolios—alongside traditional exams to give a fuller picture of student understanding.
- Use a Data-gathering Paradigm. Utilize observational and conversational data along with traditional assessment to assign grades instead of a traditional point-gathering paradigm. (Liljedahl, 2020).

Resources and Materials

- Leverage High-Quality and Affordable Course Materials. Advocate for course materials that are not only academically sound and contribute to modernizing the curriculum but also are affordable and accessible—such as Open Educational Resources and cost-effective textbooks.

Technology Integration

- Integrate Technology to Support Learning Goals. Use technology purposefully to reinforce course objectives and help students meet learning outcomes across all modalities of instruction.
- Employ Technology to Enhance Mathematical Thinking. Incorporate digital tools that support exploration—helping students discover patterns, test ideas, and build logical reasoning skills.
- Ensure Technology Accessibility. Select technologies that are fully accessible to all students, including those with disabilities, to create an inclusive digital learning environment.
- Provide Transferable Technology Tools. Offer students access to applications and tools they can continue to use in other courses and beyond the classroom, supporting long-term academic and career success.

Continuous improvement of course design can be achieved by using effective assessments in which faculty identify assessment tools linked to desired student learning outcomes and proceed through a four-step implementation cycle of planning, gathering relevant data and evidence, interpreting them, and using results to make informed instructional decisions. Instructors should participate in the development and assessment of not only individual courses but also how the courses contribute to general education outcomes in mathematics.

Becoming a Reflective Practitioner

Instrumental to faculty ownership is to be a reflective practitioner who examines curriculum and teaching practices to identify areas that need improvement. We offer suggestions for becoming a reflective practitioner

- Reflect on whether students are actively taking ownership of their learning. This involves clearly defining what ownership looks like and identifying methods to assess it effectively.
- Regularly review courses and curricula to identify areas for ongoing improvement and innovation.
- Stay informed about current research in teaching and learning, and apply evidence-based practices to enhance course design and instruction.

- Engage in continuous professional development to stay current with educational research, teaching strategies, and technological advancements that support effective instruction.
- Explore and adopt emerging tools—such as artificial intelligence—to personalize learning, deliver timely feedback, and improve instructional efficiency, while upholding principles of equity and academic integrity.
- Design and implement action research projects as a means of investigating and improving their teaching practices.
- Promote a growth mindset among students by creating environments that value effort, persistence, and learning from mistakes.
- Use multiple perspectives to examine and improve teaching practices, including personal experiences as a learner, student feedback, peer observations, and insights from educational literature (Brookfield, 2002).
- Contribute to a culture of collaboration and idea-sharing among faculty. This can be facilitated through departmental meetings where instructors rotate presenting on specific courses or teaching strategies. Additional professional growth opportunities include attending conferences or on IMPACT Live! or communities of practice.

Department and Institution Ownership

As full and part-time faculty take ownership of individual responsibilities for the learning environment, course design, curriculum, and assessment, it is the role of mathematics departments and institutions to support faculty in their teaching. By faculty uniting as a department, they are more likely to influence their institutions into listening to and acting upon the needs of the faculty. The institution needs to work with the faculty to determine the best course of action given the resources that can be made available.

One area that departments and institutions have the most influence over is in providing a supportive learning environment consisting of contemporary classrooms, mathematics tutoring labs, learning centers, counselors, and service for students with disabilities, to name a few. Learning environments should be adaptable to the needs and characteristics of students. Classroom layouts, which include furniture in the case of traditional settings, the design of virtual courses, and technology resources for both, all contribute to the learning of mathematics. As such, departments and institutions should

- Provide the equipment and training faculty need to create engaging, effective classroom environments that support deep mathematical learning.
- Ensure all students have access to essential technology—such as computers, software, calculators, digital recorders, and educational videos—to support their success.
- Design both physical and virtual classrooms with accessibility in mind, following principles such as those outlined in Universal Design for Learning (CAST, 2011).
- Promote and support effective instructional practices across all learning formats—face-to-face, online, and hybrid/blended classrooms.
- Collaborate with faculty to make informed course placement decisions that best support student learning and success (AMATYC Position Statement).
- Offer ongoing professional development for all faculty, with a focus on encouraging student ownership of the learning process.
- Ensure faculty can engage in all phases of action research (planning, action, observation, and reflection, with the ultimate goal of improving teaching practices and student outcomes) to improve instruction.

Departments and institutions must create environments that nurture both academic learning and a strong sense of community. Learning centers should serve as inclusive and welcoming spaces where students not only receive academic support but also feel connected, encouraged, and valued. These centers play a vital role in fostering collaboration, peer interaction, and confidence-building—all of which contribute to student success. To promote this supportive atmosphere, departments and institutions should:

- Provide adequate space and resources for peer and professional tutoring, as well as mathematics resource centers that invite collaboration and sustained engagement.
- Set clear qualifications for tutors to ensure they are only supporting courses in which they have demonstrated proficiency, maintaining the integrity of academic support.
- Establish robust training programs for mathematics tutors, peer leaders in supplemental instruction courses, and other student support staff to equip them with the skills needed to assist students effectively and empathetically.

- Offer student-centered workshops that focus on essential academic and personal skills, including math-specific study strategies, managing math anxiety, and effective use of technology.
- Ensure that learning resources and support services are accessible at a variety of times—including evenings and weekends—to meet the diverse scheduling needs of students.

Another area that departments and institutions have the most influence over is the instructional materials that faculty use in their classes. The purpose of mathematics courses and programs in college is to develop students' mathematical proficiency with the intention of preparing them for other courses and the workplace. Departments and institutions must oversee curriculum development and assessment in mathematics courses and programs. They must ensure that decisions are based on the needs of the local student population but that results also align and agree with national trends and visions as well as curricula at transfer institutions.

A curriculum must be designed for today's students and tomorrow's society. It must effectively meet the needs of as many academic paths and disciplines as possible. In particular, attention should be paid to the influence of technology, research on student learning, mathematics content, and skills needed for successful careers and responsible citizenship. Thus, departments and institutions should

- Collaborate with all faculty to define clear and meaningful learning outcomes for each course, while also engaging with external stakeholders—such as universities, employers, legislators, and national organizations—to ensure relevance and alignment.
- Ensure that developmental mathematics courses include outcomes that build quantitative literacy, equipping students with essential skills for success in future college-level coursework.
- Promote cross-departmental collaboration to support consistent instruction and assessment of mathematics-related outcomes in non-mathematics courses.
- Conduct regular reviews and updates of student learning outcomes to keep them responsive to changing educational and professional needs.
- Review placement practices and prerequisite structures to ensure they align with course content and support student progress.

The next area in which departments and institutions must recognize their responsibility and role is in fostering and providing professional development opportunities by the establishment of an effective professional development program. Participation in professional development activities has a measurable impact on teaching. Keys to providing an effective professional development program include (Morley, Jamie & Zutes, Spring, n.d.)

- Connection to Evaluations: Linking professional development to annual performance reviews helps keep it meaningful and ensures everyone stays on track and accountable.
- Consistency and Flexibility: Programs should be consistently applied yet flexible enough to accommodate individual faculty needs and schedules.
- Recognition and Rewards: Active participation in development activities should be acknowledged and rewarded to encourage engagement.
- Collaborative Learning: Encouraging faculty with similar goals to participate in activities together fosters a collaborative learning environment.
- Streamlined Processes: Utilize electronic forms and platforms to simplify documentation and tracking of development activities.

The final area that departments and institutions need to take ownership in is that of assessment. Curriculum assessment provides mathematics departments with data to make informed decisions about course content and student learning. It is an ongoing process by which a college or department assesses what mathematics students know at the end of their course or program. Results should be analyzed extensively and discussed, as well utilized to revise and improve curriculum and courses. Departments and institutions should use the characteristics of action research to facilitate the:

- Engagement of all faculty in the design and implementation of course and program-level assessments to ensure shared ownership and diverse perspectives.
- Alignment of department-wide assessment tools with clearly defined course outcomes to maintain consistency and focus.
- Assessments of courses regularly to monitor student progress and instructional effectiveness.
- Scheduling and carrying out of periodic evaluations of learning outcomes across all mathematics courses to support continuous improvement.

- Analysis of assessment results thoughtfully and use the insights to inform teaching strategies and enhance student learning experiences.
- Maintenance of documentation of course-wide interventions to support reflection, track progress, and guide future improvements.
- Review and update of the curriculum regularly to ensure that courses reflect current standards and the evolving needs of a modern mathematics program.

Working Together

Students entering two-year colleges bring with them a variety of ideas of what learning is and what their role is in order to be a successful student. Fostering a culture of shared responsibility and proactive engagement among faculty, staff, and institutional leaders is essential to creating meaningful change in mathematics education. By working collaboratively—supporting one another, setting clear expectations, implementing thoughtful practices, and embracing innovation—we can create inclusive, student-centered environments that promote academic success and personal growth. When each member of the educational community takes initiative and ownership, we build a stronger, more responsive program that benefits not only our students but also the broader institution and society.

Are you looking for ways to heighten your ownership of your role as a member of the mathematical community? Would you like to learn about more ways to foster ownership in your students? Do you already have great information or activities involving faculty or student ownership? Head to myAMATYC Crowe, Robert , & Kennedy, Jane (2023). Developing Student Ownership (2nd ed.). Elevated Achievement Group, Inc. and find innovations your colleagues are using or contribute innovations and ideas of your own.

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6.15.3 Procedure for the Transfer of Monies from One Investment Fund to Another

When necessary to transfer monies from one investment fund to another at year end (e.g., Fund 1 to Fund 2 or vice versa), the transfer ~~is to be effective the last day of the calendar year and~~ should take place as soon as ~~possible~~ possible after the last day of the calendar year~~thereafter~~, but no later than March ~~January~~ 31st of~~in~~ the next year.

~~If the transfer does not take place by January 31st, then the principal amount to be transferred shall be adjusted based on the rate of return determined by the year-end total balance shown in the Merrill Lynch fund statement and the total balance shown in the latest Merrill Lynch fund statement, both for the receiving fund to which the monies are being transferred.~~

~~The amount of monies to be transferred shall be the principal amount that was supposed to be transferred on December 31st multiplied by the ratio of the current balance shown in the latest statement for the receiving fund divided by the recent end-of-year balance in the receiving fund.~~

6.15.3 Procedure for the Transfer of Monies from One Investment Fund to Another

When necessary to transfer monies from one investment fund to another at year end (e.g., Fund 1 to Fund 2 or vice versa), the transfer should take place as soon as possible after the last day of the calendar year, but no later than March 31 of the next year.

Marked Up Version

5.1.5 Conference Responsibilities (AMATYC Executive Board) <SBM 2018>

The AMATYC Executive Board is primarily responsible for decision making for AMATYC conference policy. Adhering to the master time-table will ensure smooth functioning for upcoming conferences. Responsibilities are to be performed by the Board proper, as well as by individuals within the Board. The following are Board duties: (Year C represents the year of the future conference.)

8. An AMATYC Executive Board member ~~shall not~~may be a speaker ~~or presider~~ at the annual AMATYC conference for ~~any~~ at most one presentation published in the conference miniprogram and/or program. This presentation excludes other ~~than~~ sessions outlined in the duties listed in the Policy and Procedures Manual or requested by the AMATYC President or Board. ~~Exceptions can be made by the AMATYC Executive Board or President. Such exceptions could be a reviewed session or be included in the count of "non-reviewed" presentations.~~

Clean Version

5.1.5 Conference Responsibilities (AMATYC Executive Board) <SBM 2018>

The AMATYC Executive Board is primarily responsible for decision making for AMATYC conference policy. Adhering to the master time-table will ensure smooth functioning for upcoming conferences. Responsibilities are to be performed by the Board proper, as well as by individuals within the Board. The following are Board duties: (Year C represents the year of the future conference.)

8. An AMATYC Executive Board member may be a speaker at the annual AMATYC conference for at most one presentation published in the conference miniprogram and/or program. This presentation excludes other sessions outlined in the duties listed in the Policy and Procedures Manual or requested by the AMATYC President or Board.

Order of Business – Meeting Agenda
Fall Board Meeting
AMATYC Executive Board
October 16, 2025

Page	Agenda Item	Who
	Call to Order	Hurlburt
Section A: Meeting Agenda		
A1	Order of Business	Hurlburt
A2	Rules of Conduct	Hurlburt
A3	**(M) Adopt Rules of Conduct**	**Hurlburt**
A4	**(M) Adopt Order of Business**	**Hurlburt**
Section L: Executive Session		
L1	**(M) Appointments**	Hurlburt
Section M: Motions		
M1	**(M) Approval of a new Vision and Policy on a Welcoming and Inclusive Environment**	**Aschenbrenner / Ebersole**
Section O: Parking Lot		
O1	Parking Lot	All
O2	**(M) Motion to Suspend**	**Hurlburt**

Appointees October 2025

Appointee's Name	Term Begins	Term Ends	Term Length (yr)	Term No.	Committee or ANet	Position Description
James Ham	1/1/26	12/31/29	4	2	Investments Board	Member
Peter Keep	1/1/26	12/31/27	2	1	Mathematics Intensive ANet	Chair
Christine Mirbaha	1/1/26	12/31/27	2	3	Placement and Assessment ANet	Chair
Jon Anderson	9/1/25*	8/30/27	3	1	Student Research League	Coordinator
April Crenshaw	1/1/26	12/31/28	3	1		AMATYC Representative to JCW

*Dates defined by PPM

Policy on a Welcoming and Inclusive Environment – Current Version

The American Mathematical Association of Two-Year Colleges (AMATYC) is committed to providing an atmosphere that encourages the free expression and exchange of ideas. AMATYC values diversity in its membership and leadership and believes that a welcoming and inclusive environment encourages input from individuals with a variety of backgrounds and results in a stronger, more relevant organization. It is the policy of the organization that all participants in AMATYC activities will enjoy an environment where their presence and contributions are met with unbiased and equitable consideration.

AMATYC is dedicated to the philosophy of equality of opportunity and treatment for all members, regardless of gender, gender identity or expression, race, nationality, ethnicity, religion or religious belief, age, marital status, sexual orientation or identification, disabilities, veteran status, or any other reason not related to scientific merit. The professional behavior and communication of AMATYC members should reflect an environment that is safe, respectful, and supportive of others.

The legal definition of harassment is "unwanted, unwelcomed and uninvited behavior that demeans, threatens or offends the victim and results in a hostile environment for the victim. Harassing behavior may include, but is not limited to, epithets, derogatory comments or slurs and lewd propositions, assault, impeding or blocking movement, offensive touching or any physical interference with normal work or movement, and visual insults, such as derogatory posters or cartoons".
(Source: https://definitions.uslegal.com/h/harassment/, retrieved 8/20/2021) Harassment is a form of misconduct that undermines the integrity of our organization.

This policy applies to all attendees including members, students, guests, staff, contractors and exhibitors, participants in professional sessions, tours, and social events of any AMATYC meeting or other activity. Participation in AMATYC activities indicates an agreement to behave in a manner consistent with these standards.

In the unfortunate event that an individual(s) experiences a possible violation of this policy, the incident should be reported to: amatyccares@amatyc.org, or the AMATYC leader of the individual's choice.

Vision and Policy on a Welcoming and Inclusive Environment – proposed version

We recognize that all people have value and worth; that having a diverse AMATYC membership leads to a fuller, more creative atmosphere for professional and personal growth; and that each person's unique experiences and perceptions add new perspectives and depth that enrich the organization as a whole.

With this foundation, we envision a future AMATYC that:

1) Offers opportunities for meaningful participation for anyone with an interest in teaching and learning in mathematics in the first two years of college, regardless of their identities or roles in their institutions
2) Experiences robust participation from the true diversity of the people involved in this work
3) Values all members and makes that clear
4) Empowers and supports members in their growth, creating pathways toward leadership positions, and helping members see themselves as leaders

As an organization shaped by the experiences, education, and cultures of its members, AMATYC acknowledges both its progress and its ongoing responsibility. We strive to do our best—and recognize that we must also do better. This commitment calls us to reflect, grow, and when possible, redress past harms. It also requires us to take proactive steps to prevent future missteps.

Our vision is rooted in accountability: to take responsibility, embrace change, and respond with integrity when challenges arise.

We are committed to ensuring that all individuals engaging with AMATYC programs and events experience an environment where their presence and contributions are met with respect, equity, and openness. Achieving this vision requires shared responsibility—both at the individual and organizational levels.

Individual's Responsibility:

- Listen actively to diverse thoughts and ideas with an open mind to broaden your perspective
- Foster relationships and develop awareness of others' sense of belonging and inclusion
- Actively work to dismantle barriers to participation and intervene when necessary to maintain positive experiences
- Aspire to personal growth, including a commitment to examining and addressing unconscious bias

- Recognize and value mathematics and mathematics education in other parts of the world

Organizational Responsibility:

- Establish a code of conduct policy to ensure respectful interactions
- Respond with care and respect to individuals who raise concerns
- Regularly assess membership demographics to inform outreach and identify areas for growth
- Engage meaningfully with current and prospective members to foster connection and inclusion
- Continually work to dismantle barriers to participation and promote outreach to diverse groups
- Encourage the inclusion of diverse mathematical perspectives and contributions in teaching and presentations

Order of Business – Meeting Agenda
AMATYC Executive Board
Fall Board Meeting (FBM 2025)

The board meeting will proceed in a linear fashion with the exceptions listed in the meeting plans.

Parking Lot: during FBM there may be time to discuss items raised in board reports or by AMATYC members. Discussion items may be added to the Parking Lot during the meeting. Items in the Parking Lot can be discussed in any order. An initial list is included in Section O in this order of business. If appropriate, some Parking Lot items will be discussed in Executive Session.

Reports (R) – 5 minutes Discussion (D) – 10 minutes Motions (M) – 15 minutes

Page	Agenda Item	Who?	Notes
	Call to Order	Hurlburt	
Section A: Meeting Plan, Rules of Conduct, Agenda, Reference Materials			
A1	Meeting Plans	Hurlburt	
A3	Links to Documents for Meetings	Hurlburt	
A4	Rules of Conduct	Hurlburt	
A5	**(M) Adopt Rules of Conduct**	Hurlburt	
A6	Order of Business	Hurlburt	
A13	**(M) Adopt Order of Business**	Hurlburt	
B. Consent Calendar Reports, Board Member Reports			
B1	President	Hurlburt	
B3	President-Elect	Tchertchian	
B5	Past President	Watkins	
B7	Secretary	Weisbrod	
B9	Treasurer	Kundomal	

B11	Northeast VP	Georgiakaki	
B13	Mid-Atlantic VP	Ebersole	
B15	Southeast VP	Atkinson	
B17	Midwest VP	Bartley	
B19	Central VP	Johanson	
B22	Southwest VP	Travis	
B25	Northwest VP	Bernards	
B27	West VP	Gerber	
C. Consent Calendar- Motions/Reports			
C1	**(M) Gates Foundation Support (approved via email)**	**Rimkus**	
C2	**(M) Membership Dues**	**Kundomal**	
D. Academic Network Reports and Motions			
D1	(R) Adjunct Faculty Issues	Barrientos/ Tchertchian	
D5	(R) Developmental Mathematics (DMC)	Granger/Atkinson	
NA	(R) Division and Department Leadership	Ward/Bartley	
D9	(R) Equity	Aschenbrenner/ Ebersole	
D15	(R) Innovative Teaching and Learning (ITLC)	Ackerman/ Tchertchian	
D19	(R) International Mathematics	Leitherer/Watkins	
D24	(R) Mathematics and its Applications for Careers (MAC)	Postrigan/ Johanson	
D27	(R) Mathematics Intensive (MIC)	Cappetta/Ebersole	
D30	(R) Mathematics Pathways	Beatty/Atkinson	

D33	(R) Placement and Assessment (PAC)	Mirbaha/ Weisbrod	
D45	(R) Quantitative Reasoning	Foley/Johanson	
D48	(R) Research and Mentoring Experiences for Students and Faculty	Clahane/Watkins	
D53	(R) Research in Mathematics Education for Two Year Colleges (RMETYC)	Marfai/ Georgiakaki	
D58	(R) Statistics and Data Science	Wong/ Georgiakaki	
D61	(R) Teacher Preparation	Van Harpen/ Gerber	
E. Services / Coordinators/ Directors / Publications / Grants			
E1	(R) *AMATYC News* Editor	Mutlu/Watkins	
E4	(R) Grants Coordinator	Breit-Goodwin/ Ebersonle	
NA	(R) Legal Advisor	Piercey/Hurlburt	
E7	(R) *MathAMATYC Educator* Editor	Debrecht/Gerber	
E9	(R) *Math*AMATYC *Educator* Production Editor	Nabb/Gerber	
E11	(R) *MathAMATYC Educator* Review Editor	Alexander/Gerber	
E14	(R) Mu Alpha Theta	Menard/Travis	
NA	(R) Online Community Assistant Coordinator	Miller/Bernards	
E16	(R) Online Community Coordinator	Gaines/Bernards	
NA	(R) Position Statement Editor	Oehrlein/Hurlburt	
E18	(R) Professional Development Coordinator	Farrington/Bartley	
E20	(R) Project ACCCESS Coordinator	Feinman/Bernards	
E22	(R) SML Coordinator	Pragel/Weisbrod	

NA	(R) SML Test Developer	Blasberg/ Weisbrod	
E23	(R) SRL Coordinator	Chellamuthu/ Travis	
E26	(R) Standards Chair	Earley/ Tchertchian	
E28	(R) Student TYC DataFest Director	Saidi/ Georgiakaki	
E30	(R) Teaching for PROWESS	Dudley	
NA	(R) Webinar Coordinator	Menard/Bartley	
E34	(R) Website Coordinator	Pescosolido/ Kundomal	
F. Office			
F1	(R) Executive Director	Rimkus	
F3	(R) Office Report	Rimkus/ Vance/ Shott/ Hunsucker/ Poulin	
I: Treasurer / Budget			
	Treasurer's Report	Kundomal	
I1	**(M) Approve Expenditures**	**Kundomal**	
I2	(R) Chart of Accounts	Kundomal	
I7	(R) Audit Report	Kundomal	
I66	(R) 2025 Budget	Kundomal	
I71	(R) 2026 Draft Budget	Kundomal	
I77	**(M) Motion to Suspend PPM 6.5 Section 4 Part d**	**Kundomal/ Rimkus**	

I78	**(M) Motion to approve the 2026 Budget**	**Kundomal/ Rimkus**	
I79	(R) Balance Sheet as of Dec. 31, 2024	Kundomal	
I80	(R) 2024 Income Statement	Kundomal	
I88	(R) History of Income and Expenses	Kundomal	
I102	(R) Reserve Funds	Kundomal	
I104	(R) Contracts and Insurance Policies	Kundomal	
I109	(R) Investment Board Report	Ham/Hurlburt	
M. New Business			
M1	**(M) Updating PPM section 12.2**	**Watkins**	
M13	**(M) Updating PPM section 9.1.1**	**Watkins**	
L. Executive Session			
L1	**(M) Appointments**	**Hurlburt**	
	Comments from ANet Chairs	Georgiakaki	
	Review of Executive Director	Johanson	
G. Conference			
G1	(R) Program Coordinator	Pemberton/ Suski	
G30	(R) Assistant Conference Coordinator	Vega-Rhodes/Suski	
G33	(R) Assistant Program Coordinator Report	Gunkelman/ Suski	
G35	(R) Exhibitor Chair	Stine/Suski	
G38	(R) Conference Communication Coordinator	Outlaw/Suski	
G40	(R) 2025 LEC – Reno	Kiefer/Suski	

G42	(R) 2026 LEC – Philadelphia	Counterman/Suski	
G44	(R) 2027 LEC – Spokane	Cripe/Suski	
G45	(R) Conference Coordinator	Suski	
GG. Other Conference			
GG1	AMATYC Board Duties during the Reno Conference	Hurlburt	
GG5	Small Conference Meetings	Hurlburt	
GG6	Conference Exhibitors Visits	Hurlburt	
GG7	Delegate Assembly Minutes Committee Nominations	Hurlburt	
GG8	2027 TE Award Committee	Hurlburt	
GG10	2026 – 2027 Nominating Committee	Hurlburt	
GG12	ANet Themed Session Requests	Hurlburt	
H. Administrative Committees			
H1	(R) Foundation	Watkins	
H2	(R) MLE Award Committee	Watkins	
H3	(R) Membership Committee	Atkinson	
H6	(R) Nominating Committee	Watkins	
H7	(R) Organizational Assessment Committee	Tchertchian	
H9	(R) Past Presidents Advisory Board	Watkins	
H10	(R) Social Networking Committee	Hurlburt	
H13	(R) TE Award Committee	Tchertchian	
J. Ad hoc Committees			
J1	(R) Advocacy Task Force	Ebersole	
J3	(R) ANet Mentoring Committee	Hurlburt	
J5	(R) AMATYC News Update Committee	Watkins	
J6	(R) Leadership Recognition Committee	Atkinson	

J8	(R) Position Search for Marketing and Content Creator	Tchertchian	
NA	(R) Position Search for Assistant Conference Coordinator	Suski	
J10	(R) Position Search for SRL Coordinator	Travis	
J12	(R) PPM Revision Committee	Tchertchian	
J14	(R) Student League Eligibility Task Force	Travis	
J16	(R) Updating the Policy on Welcoming and Inclusive Environment	Ebersole	
K. Strategic Planning: November 10, 1:00pm – 2:30 pm			
K1	Strategic Planning	Tchertchian	
N. Partnerships/ Miscellaneous Reports			
N1	(R) Carnegie Math Pathways	Sattler/Hurlburt	
N3	(R) Joint Committee on Women in Mathematical Sciences (JCW)	Sattler/Hurlburt	
N6	(R) TPSE-Math	Sattler/Hurlburt	
O: Parking Lot / Motion to Adjourn			
O1	Parking Lot Discussion Items	All	
O2	**(M) Motion to Adjourn**	Hurlburt	

12.2 *AMATYC News*

The *AMATYC News* is the official newsletter of the organization.

12.2.1 Publication Policies

12.2.2 AMATYC *News* Topic List

12.2.3 Newsletter Editor

12.2.1 Publication Policies <SBM 2016>

The Newsletter Editor reviews submitted articles for content, spelling, and grammar. The Editor communicates any specific instructions to the Publications Director. The Publications Director prepares the initial layout and sends the newsletter out for review. Once the copy is finalized by the Newsletter Editor, the office handles the printing and mailing of the newsletter as well as posting to the AMATYC website.

Production

1. The newsletter will be typeset using a four-color process (F2010).
2. The newsletter will be published four times a year according to the following production schedule. <SBM 2009> <SBM 2012><SBM 2016>

Newsletter Production Schedule

PPM 12.2.1 Newsletter Deadlines	Issue Number and Name			
	1 Winter	2 Spring	3 Summer	4 Fall
Deadline for Submission	Nov 25	Feb 25	Jun 1	Aug 15
~~Articles Due to Publications Director~~	~~Dec 1~~	~~Mar 1~~	~~Jun 8~~	~~Sep 1~~
~~1st Draft to Reviewers~~	~~Dec 7~~	~~Mar 7~~	~~Jun 15~~	~~Sep 7~~
~~Edits Due to Editor~~	~~Dec 10~~	~~Mar 10~~	~~Jun 18~~	~~Sep 11~~
~~Edits Due to Publications Director~~	~~Dec 12~~	~~Mar 12~~	~~Jun 20~~	~~Sep 13~~
~~2nd Draft to Reviewers~~	~~Dec 14~~	~~Mar 14~~	~~Jun 22~~	~~Sep 14~~
~~Edits Due to Editor~~	~~Dec 17~~	~~Mar 17~~	~~Jun 25~~	~~Sep 17~~

~~Edits Due to Publications Director~~	~~Dec 19~~	~~Mar 19~~	~~Jun 27~~	~~Sep 19~~
~~Final Draft to Editor, Liaison, and President~~	~~Dec 21~~	~~Mar 21~~	~~Jun 29~~	~~Sep 21~~
~~Edits Due to Publications Director~~	~~Dec 22~~	~~Mar 22~~	~~Jun 30~~	~~Sep 22~~
~~To Printer~~	~~Dec 23~~	~~Mar 23~~	~~Jul 1~~	~~Sep 23~~
~~To Website Coordinator~~	~~Jan 18~~	~~Apr 11~~	~~Jul 18~~	~~Oct 11~~
Electronic Publication~~Members Receive~~	Feb 1	Apr 25	Aug 1	Oct 25

Notes: 1. All deadlines are considered to be "on or before."

2. Any deadlines that fall on a weekend or holiday will shift to the next business day.

Proofing <SBM 2008>

~~The~~ *AMATYC News* should be proofed by the President, the President-Elect, the Secretary, the Executive Director, the AMATYC Executive Board liaison to the Editor, and other volunteers ~~as specified by the President. Membership forms included in the *AMATYC News* should be approved by the Treasurer before printing.~~determined in advance.

The proofing schedule for the *AMATYC News* is:

1. Prior to the first draft, the Editor will proof and edit all articles submitted, then post or send the edited versions~~copy~~ to the Publications Director.

2. The first draft will be sent electronically by the Publications Director to each reviewer ~~listed above~~ and the Editor on the day indicated on the production schedule. The first draft will also be sent electronically to the Conference Coordinator and Conference Program Coordinator for informational purposes. Comments or corrections should be emailed to the Editor and the Board liaison by the deadline~~according to the production schedule~~. <SBM 2007>

3. For each draft, the Editor will compile all corrections and send one marked copy to the Publications Director.

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~~3. Each reviewer is encouraged to check any website links, but the President will ask one reviewer to focus on website references during the President's term of office.~~

~~a. If any reviewer finds references to websites that need to be attended to, the Editor will be informed.~~

~~b. The Editor will work with the appropriate persons/authors of articles to obtain the necessary information and work with the Website Coordinator to ensure that referenced links in the AMATYC News and the AMATYC website match and are active. To accomplish this task efficiently, the Board liaison will also collaborate with the Editor and help when necessary.~~

4. The second draft will be sent electronically to each reviewer, the AMATYC Executive Board, and the Editor according to the production schedule. Comments or corrections should be emailed to the Editor and the Board liaison by the deadline.

~~4. The second draft will be sent electronically to each reviewer, the AMATYC Executive Board, and the Editor according to the production schedule.~~

~~5. Reviewers will submit their corrections to the Editor and the Board liaison according to the production schedule.~~

~~6. For each draft, the Editor will compile all corrections and send one marked copy to the Publications Director.~~

~~7. The Publications Director will send electronically the final draft to the President, the Editor, and the Board liaison according to the production schedule.~~

~~8. The Publications Director will send electronically the final copy to the printer, and to the Website Coordinator, to be posted on the AMATYC website according to the production schedule.~~

~~7~~5. The Publications Director will send the final draft to the President, the Executive Director, the Newsletter Editor, and the Board liaison.

~~6~~8. The Publications Director will send the final copy to the printer ~~,~~ and approve the printer's proof.

~~7~~9. The Publications Director will send the electronic version of the newsletter to the President, the Executive Director, the Newsletter Editor, and the Board liaison to verify hyperlinks.

~~8~~10. The Publications Director will send the electronic version to the Website Coordinator to be posted on the AMATYC website.

Distribution

1. The newsletter should be mailed to members requesting a printed copy using the most economical delivery method.
2. All issues of the *AMATYC News* will be placed on the AMATYC website upon publication.
   <FBM 2010>

3. The Newsletter Editor will identify articles to feature in an email blast to AMATYC members. The Office Director will prepare the email blast which is reviewed by the Executive Director and the Newsletter Editor and approved by the President.

12.2.2 *AMATYC News* Topic List

All Issues:

- Header information: AMATYC logo, ISBN number, volume and issue numbers, issue name and year
- President's message
- AMATYC Office address, website address, phone, and e-mail
- Deadlines for News issues
- Contact information and institution of Newsletter Editor
- ~~Listing of Officers~~
- Listing of upcoming AMATYC Annual Conferences
- ~~Information on AMATYC electronic services and access~~
- Calendar of events featuring only AMATYC and AMATYC affiliate meetings~~, including affiliate meeting dates and locations~~
- Focus on Affiliates
- Important deadlines highlighted in one place
- ~~"In Memory Of: article or brief announcement~~
- Other articles to be placed in issues as appropriate:
    - New affiliate formation
    - Committee or ANet news other than routine business
    - Introduction of new AMATYC Board and volunteer leaders
    - "In Memory Of" article or brief announcements
    - Special Project Reports (e.g., Strategic Planning, Standards updates, grants)
    - Update on Washington, DC activities
    - State/Affiliate news, as space permits
    - Regional conference articles
    - Scholarship announcements
    - AMATYC Foundation
    - Upcoming AMATYC sponsored workshops and institutes with deadlines
    - Human interest articles about students, members, authors, conference speakers, and others.
    - ~~New affiliate formation~~
    - ~~Committee or ANet news other than routine business~~
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    - ~~Regional conference articles~~
    - ~~Scholarship announcements~~
    - ~~AMATYC Foundation~~

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- ~~Upcoming AMATYC sponsored workshops and institutes with deadlines~~
- ~~Human interest articles about students, members, authors, conference speakers, and others.~~

Issue #1 (Winter): Articles due Nov. 25 (release date: ~~2/1~~ Feb. 1)

- ~~Conference report including Delegate Assembly votes and newly approved position statements. If space restrictions prohibit the printing of position statements, newly approved statements may be posted on the website instead~~
- ~~Summer Institute advertising for upcoming summer, including notice of cancellation policy~~
- Highlights of Fall Board Meeting
- Election results (article due in odd years)
- Article on MLE Award winner (article due in even years)
- Article on TE Award winners (article due in odd years)
- ~~Summer Institute advertising for upcoming summer~~
- ~~AMATYC membership form (since this issue is sent to potential members)~~
- Conference wrap-up from Local Events committee
- Pictures of conference attendees
- Promotion of upcoming conference
- ANet/Committee reports as assigned
- Regional Scholarships Winners
- Project ACCCESS names and photos
- Herb Gross Presidential Award
- Foundation awards
- Winners of Student Research League
- Thank you for corporate partners, no logos.
- DataFest and Student Research League announcement article

Issue #2 (Spring): Articles due Feb. 25 (release date: ~~4/20~~ Apr. 25)

- Conference report including Delegate Assembly votes and newly approved position statements.
- Committee and ANet reports as assigned
- Preliminary conference information
- Round 1 Student Mathematics League Winners (Fall Semester)
- Call for nominations for TE Award (even years)
- Call for nominations for ME Award (odd years)
- Call for nominations for AMATYC Executive Board (even years)
- ~~Clarification of non-voting status of institutional, adjunct, retired, and student members (odd years)~~
- Reminder of upcoming Executive Board elections with clarification of voting status of individual, life, retired, adjunct, institutional, and student members (odd years)

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Issue #3 (Summer): Articles due Jun. 1 (release date: Aug. ~~18/01~~)

- Highlights of Spring Board Meeting
- Committee and ANet reports as assigned
- Conference information
- ~~AMATYC membership form~~
- Student Mathematics League information
- Call for nominations for MLE Award (odd years)
- Call for nominations for TE Award (even years)
- Call for nominations for AMATYC Executive Board (even years)
- Encourage AMATYC members to vote in the election (odd years)
- Call for proposals for an AMATYC mini-grant
- Datafest Winners

Issue #4 (Fall): Articles due Aug~~ust~~ 15 (release date: Oct. ~~10/~~25)

- More conference information
- Committee and ANet reports as assigned
- Announce new Project ACCCESS Cohort
- Regional SRL results
- Call for proposals for the next conference.
- ~~Summer Institute reports from previous summer~~
- Foundation donor list
- Highlights of Executive Board Meetings
- Call for nominations for AMATYC Executive Board (even years)
- ~~Call for State Delegates (in even years)~~
- ~~Call for proposals for AMATYC Research Associate (ARA)~~
- ~~Call for proposals for consulting professor.~~

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    - AMATYC Foundation
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- Regional Scholarships Winners
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- Foundation awards
- Winners of Student Research League
- Thank you for corporate partners, no logos.

- DataFest and Student Research League announcement article

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- Call for nominations for TE Award (even years)
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- Call for nominations for AMATYC Executive Board (even years)
- Reminder of upcoming Executive Board elections with clarification of voting status of individual, life, retired, adjunct, institutional, and student members (odd years)

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- Student Mathematics League information
- Call for nominations for MLE Award (odd years)
- Call for nominations for TE Award (even years)
- Call for nominations for AMATYC Executive Board (even years)
- Encourage AMATYC members to vote in the election (odd years)
- Call for proposals for an AMATYC mini-grant
- Datafest Winners

Issue #4 (Fall): Articles due Aug. 15 (release date: Oct. 25)

- More conference information
- Committee and ANet reports as assigned
- Announce new Project ACCCESS Cohort
- Regional SRL results
- Call for proposals for the next conference.
- Foundation donor list
- Highlights of Executive Board Meetings
- Call for nominations for AMATYC Executive Board (even years)

9.1.1 ANet Chair

Membership Responsibilities

1. Submit at least two articles per year (or as requested) for the *AMATYC News*, including a call for ANet members in the *AMATYC News* at least once per year.
    a. **Schedule**.
    Each ANet will be responsible for contributing articles to at least two of the four annual newsletter issues. To manage this, Chairs must complete an advance form to select their two assigned issues, allowing them to align their submissions with their specific activities and ensure balanced representation across the organization.
    b. **Article Guidelines**.
    Articles submitted for the ANet newsletter must emphasize the network's professional activities rather than individual perspectives or commentary. Submissions should document recent initiatives, events, collaborative projects, or outreach efforts that reflect the ANet's ongoing contributions to mathematics education. Authors are expected to describe objectives, outcomes, and future plans in a factual and objective manner. The purpose of these articles is to inform readers about the specific activities of the ANet, to encourage greater engagement and participation in the ANet, and to highlight achievements that strengthen the broader AMATYC community.
2. Encourage interested AMATYC members to join the ANet Community Group on the myAMATYC site. Membership of all ANets will be maintained on the myAMATYC site.
3. Communicate ANet activities regularly throughout the year to the members via the library, blogs, and discussion boards of myAMATYC or email lists. E-Newsletters should contain news relating to the ANet, as well as information of interest to the ANet members. The myAMATYC website should provide up-to-date information, and encourage active participation of all ANet members in the work of the group.
4. Ensure the recruitment of members for the ANet during the annual conference especially in the regional meetings. Recruitment should also occur through affiliate meetings, regional functions, myAMATYC, social media, and/or as opportunities arise.
5. Encourage ANet members to submit articles to *The MathAMATYC Educator*, news items to the *AMATYC News*, proposals for the AMATYC Annual Conference, and proposals for webinar topics.
6. Keep executive committee members abreast of current information relative to the ANet's goals and assure that these goals are being accomplished.

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9.1.1 ANet Chair

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5. Encourage ANet members to submit articles to *The MathAMATYC Educator*, news items to the *AMATYC News*, proposals for the AMATYC Annual Conference, and proposals for webinar topics.
6. Keep executive committee members abreast of current information relative to the ANet's goals and assure that these goals are being accomplished.

Appointees FBM 2025

Appointee's Name	Term Begins	Term Ends	Term Length (yr)	Term No.	Committee or ANet	Position Description
Julie Gunkelman	1/1/26	12/31/28	3	2	Conference Committee	Assistant Program Coordinator
Shannon Ruth	11/17/25	11/12/28	3	1	Conference Committee	Local Events Coordinator (Phoenix 2028)
Natalia Postrigan	1/1/26	12/31/27	2	3	Math and its Appl. for Careers ANet	Chair
Sherry McCormack	1/1/26	12/31/27	2	1	Innov. Teaching & Learning ANet	Chair

10.1.2 Student Mathematics League Rules

General Eligibility

Colleges enter students in the competition by submitting their scores for either the Round I or Round II exam. For each exam, the top 5 scorers are considered as the team from that college. If a college submits less than 5 scores, then all scorers become the team from that college.

To be eligible, a student must be currently enrolled in at least one class at the college they arehe or she is representing. The student must not be enrolled in or have college credit for any mathematics course above traditional sophomore-level classes such as Calculus III, Differential Equations, Linear Algebra, or Discrete Mathematics. The student must meet these guidelines at the time of whichever test they are taking (Round I or Round II). If questions about eligibility arise, the SML coordinator will make the decision, consulting their Board liaison and the AMATYC President if needed.

. <7/2/2008><FBM 2015>

To be eligible for the grand prize, a student must meet the eligibility guidelines and must take both tests (Round I and Round II). Previous recipients of the grand prize are not eligible to receive the grand prize a second time. For the grand prize to be awarded, the moderator must submit the student's college transcript and a letter signed by the student and the moderator certifying eligibility. If requested by the SML Coordinator, transcripts must also be produced for winners of the other regional and national awards.

ADA Statement

The administration of the Student Mathematics League test shall comply with the Americans with Disabilities Act. Any accommodation will be in accordance with the procedures used on the campus where the test is administered.

Academic Integrity

Academic dishonesty is a serious offense. Infractions include, but not limited to, using a banned device on the SML test (a computer, a PDA, a book of any type (including translation dictionaries), mathematical tables, a calculator with a QWERTY keyboard, cell phone, or electronic translator), asking questions during the test, taking the test at different locations at different times, and copying the work of another student. If it is found that a student has cheated in any way on the SML test, their score will not be counted and they will not be allowed to participate in the SML in future rounds. Additionally, if a student is found to have copied the work of another student or to have taken the test at different campuses, the academic honesty policies and the related procedures of the institution should be initiated by the SML moderator. <SBM 2010>

10.8.2 Student Research League Rules

A. General Eligibility

Colleges enter teams of 1–3 students by registering them in advance. If a college enters multiple teams, each team must have a different Faculty Mentor.

To be eligible, a student must be currently enrolled in at least one class at the college they are~~he or she is~~ representing. The student must not be enrolled in or have college credit for any mathematics course above traditional sophomore-level classes such as Calculus III, Differential Equations, Linear Algebra, or Discrete Mathematics. The student must meet these guidelines at the time of the competition. If questions about eligibility arise, the SRL coordinator will make the decision, consulting their Board liaison and the AMATYC President if needed.

For each student on the first-place team, the Faculty Mentor must submit the students' college transcript and a letter signed by the students and the Faculty Mentor certifying eligibility. If requested by the SRL Coordinator, transcripts must also be produced for winners of the other regional and national awards.

B. Americans with Disabilities Statement

The administration of the SRL Challenge Problem shall comply with the Americans with Disabilities Act. Any accommodation will be in accordance with the procedures used at the institution registering the team.

C. Academic Integrity

Academic Integrity is a serious matter within the SRL Challenge. Infractions include, but are not limited to, copying the work of individual(s) or oral interviews without proper recognition in the Thesis Defense Reference Citation Section and Thesis Defense is written by anyone other than the individual/team student(s). An individual/team student(s) may seek counsel from the team's Faculty Mentor regarding SRL Policy, but not seek information about the Challenge Problem solution. If it is found that an individual/team student(s) has violated the Academic Integrity of the SRL Challenge, their

Thesis Defense will not be reviewed, and those student(s) will not be allowed to participate in future SRL Challenges.

1.

10.9.2 Two-Year College DataFest Rules

A. General Eligibility

Two-year colleges or other associate degree-granting institutions may enter one ~~one~~ or more teams of 2–5 students. Each team will be supported by a faculty advisor from the same institution. To be eligible to participate, a student must be enrolled in at least one class at the college or university they are representing ~~he or she represents~~, at the time of the competition. If questions about eligibility arise, the TYC DataFest Coordinator will make the decision, consulting their Board liaison and the AMATYC President if needed. If requested by the TYC DataFest Coordinator, transcripts or other proof of enrollment must be submitted for students on the prize-winning teams.

B. Americans with Disabilities Statement

The administration of TYC DataFest shall comply with the Americans with Disabilities Act. Any accommodation will be in accordance with the procedures used at the institution registering the team.

10.1.2 Student Mathematics League Rules

General Eligibility

Colleges enter students in the competition by submitting their scores for either the Round I or Round II exam. For each exam, the top 5 scorers are considered as the team from that college. If a college submits less than 5 scores, then all scorers become the team from that college.

To be eligible, a student must be currently enrolled in at least one class at the college they are representing. The student must not be enrolled in or have college credit for any mathematics course above traditional sophomore-level classes such as Calculus III, Differential Equations, Linear Algebra, or Discrete Mathematics. The student must meet these guidelines at the time of whichever test they are taking (Round I or Round II). If questions about eligibility arise, the SML coordinator will make the decision, consulting their Board liaison and the AMATYC President if needed. <7/2/2008><FBM 2015>

To be eligible for the grand prize, a student must meet the eligibility guidelines and must take both tests (Round I and Round II). Previous recipients of the grand prize are not eligible to receive the grand prize a second time. For the grand prize to be awarded, the moderator must submit the student's college transcript and a letter signed by the student and the moderator certifying eligibility. If requested by the SML Coordinator, transcripts must also be produced for winners of the other regional and national awards.

ADA Statement

The administration of the Student Mathematics League test shall comply with the Americans with Disabilities Act. Any accommodation will be in accordance with the procedures used on the campus where the test is administered.

Academic Integrity

Academic dishonesty is a serious offense. Infractions include, but not limited to, using a banned device on the SML test (a computer, a PDA, a book of any type (including translation dictionaries), mathematical tables, a calculator with a QWERTY keyboard, cell phone, or electronic translator), asking questions during the test, taking the test at different locations at different times, and copying the work of another student. If it is found that a student has cheated in any way on the SML test, their score will not be counted and they will not be allowed to participate in the SML in future rounds. Additionally, if a student is found to have copied the work of another student or to have taken the test at different campuses, the academic honesty policies and the related procedures of the institution should be initiated by the SML moderator. <SBM 2010>

10.8.2 Student Research League Rules

A. General Eligibility

Colleges enter teams of 1–3 students by registering them in advance. If a college enters multiple teams, each team must have a different Faculty Mentor.

To be eligible, a student must be currently enrolled in at least one class at the college they are representing. The student must not be enrolled in or have college credit for any mathematics course above traditional sophomore-level classes such as Calculus III, Differential Equations, Linear Algebra, or Discrete Mathematics. The student must meet these guidelines at the time of the competition. If questions about eligibility arise, the SRL coordinator will make the decision, consulting their Board liaison and the AMATYC President if needed.

For each student on the first-place team, the Faculty Mentor must submit the students' college transcript and a letter signed by the students and the Faculty Mentor certifying eligibility. If requested by the SRL Coordinator, transcripts must also be produced for winners of the other regional and national awards.

B. Americans with Disabilities Statement

The administration of the SRL Challenge Problem shall comply with the Americans with Disabilities Act. Any accommodation will be in accordance with the procedures used at the institution registering the team.

C. Academic Integrity

Academic Integrity is a serious matter within the SRL Challenge. Infractions include, but are not limited to, copying the work of individual(s) or oral interviews without proper recognition in the Thesis Defense Reference Citation Section and Thesis Defense is written by anyone other than the individual/team student(s). An individual/team student(s) may seek counsel from the team's Faculty Mentor regarding SRL Policy, but not seek information about the Challenge Problem solution. If it is found that an individual/team student(s) has violated the Academic Integrity of the SRL Challenge, their Thesis Defense will not be reviewed, and those student(s) will not be allowed to participate in future SRL Challenges.

1.

10.9.2 Two-Year College DataFest Rules

A. General Eligibility

Two-year colleges or other associate degree-granting institutions may enter one or more teams of 2–5 students. Each team will be supported by a faculty advisor from the same institution. To be eligible to participate, a student must be enrolled in at least one class at the college or university they are representing, at the time of the competition. If questions about eligibility arise, the TYC DataFest Coordinator will make the decision, consulting their Board liaison and the AMATYC President if needed. If requested by the TYC DataFest Coordinator, transcripts or other proof of enrollment must be submitted for students on the prize-winning teams.

B. Americans with Disabilities Statement

The administration of TYC DataFest shall comply with the Americans with Disabilities Act. Any accommodation will be in accordance with the procedures used at the institution registering the team.

Order of Business – Meeting Agenda
Fall Board Meeting
AMATYC Executive Board
December 13, 2025

Page	Agenda Item	Who
	Call to Order	Hurlburt
Section A: Meeting Agenda		
A1	Order of Business	Hurlburt
Section L: Executive Session		
L1	**(M) Appointments**	**Hurlburt**
Section M: Motions		
M1	**(M) Approve Over Expenditure for AV Equipment at the Conference**	**Suski**
M2	**(M) Approve Level 2 support for Mathematics Teaching: Technical and Vocational Education and Training Grant**	**Tannor, Rimkus, Breit-Goodwin**
Section O: Parking Lot		
O1	**(M) Motion to Adjourn**	**Hurlburt**

Appointees December 2025

Appointee's Name	Term Begins	Term Ends	Term Length (yr)	Term No.	Committee or ANet	Position Description
Ben Aschenbrenner	1/1/26	12/31/27	2	3	Equity ANet	Chair
Dana Clahane	1/1/26	12/31/27	2	2	RMESF ANet	Chair
Xianwei Van Harpen	1/1/26	12/31/27	2	2	Teacher Prep ANet	Chair
Ashley Majzun	1/1/26	12/31/27	2	1	Research in Math. Ed. TYC ANet	Chair
Anthony Tavares	1/1/26	12/31/27	2	1	MathAMATYC Educator Team	Editor
Julie Gunkelman	1/1/26	12/31/28	3	1	Conference Committee	Assistant Conference Coordinator
Chris Ward	1/1/26	12/31/28	3	1	MathAMATYC Educator Team	Member of Editorial Board
John Bakken	1/1/26	12/31/28	3	1	MathAMATYC Educator Team	Member of Editorial Board