PACE Annotated Syllabus Guide

College of Education
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Math Fluency Beyond the Basic Facts

3 credits

Fall 2022

Course Sponsor: **Alaska Staff Development Network**

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Course Meeting Information
Location: Online

Start and End Date: Spring Session: July 16 – March 15
Summer Session: December 16 – July 15
Fall Session: March 16 – October 15

Course Description: What does it really mean for students to be fluent in math? Hint: It's not just about basic facts! In this course you'll challenge the traditional narrative of fluency, expanding your understanding to include flexibility with numbers, strategy selection, reasoning, and creativity. Perfect for anyone that teaches or supports K-8 mathematics, this course balances

relatable research with usable activities to help you shift your classroom practices and assessments toward a fluency approach. With a robust collection of strategies, games, and activities, this course will give you the tools you need to build a strong foundation of fluency and empower confident mathematical thinkers.

Intended Audience: K-8

Enrollment Restrictions: This class is restricted to educators with a bachelors degree.

Course Prerequisite/Co-requisites: None

Alignment with College of Education Vision, Mission, and Conceptual Framework:
We believe that the preparation and support of professional educators is the shared responsibility of the University of Alaska Anchorage and our partners, and that our programs must evolve dynamically in response to unique community needs, research, and continuous program assessment. This PACE course is designed to meet a professional development need in response to our partner school districts and professional organizations. The course fits within the mission of the UAA College of Education as we encourage lifelong learning to meet the challenges of a rapidly changing world.

Link to Standards for Alaska Teachers:
This professional development is rooted in the fundamentals of the standards for Alaska Teachers. It is offered to encourage and support practicing educators in attaining, maintaining, or surpassing the standards that, as stated in Standards for Alaska's Teachers, "clearly define the skills and abilities our teachers and administrators need to possess to effectively prepare today's students for successful lives and productive careers." (Mike Hanley, http://www.eed.state.ak.us/standards/pdf/teacher.pdf)

Learning Forward Standards for Professional Learning:
This course aligns with the Learning Forward Standards for Professional Learning which outline the "characteristics of professional learning that leads to effective teaching practices, supportive leadership, and improved student results." As explicit in the standards, "professional learning is for educators to develop the knowledge, skills, practices and dispositions they need to help student perform at a higher levels." (https://learningforward.org/standards-for-professional-learning)

Course Design:

a. This course will explore the equivalent of 45 hours of content per 3 credit course. An average participant may be informally engaged with the course and materials for approximately 90 more hours in achieving mastery.
b. Does not apply to any UAA certificate or degree program.
c. No UAA lab and/or materials fees beyond standard charges.
d. This course will consist of text readings, read and respond essay questions, applications, a resource requirement and a reflection requirement. Additionally, participation in a discussion forum is encouraged. The course is self-paced with all coursework due at the end of the session.

Instructional Goals and Defined Outcomes:

1. Use provided prompts specific to mathematical fluency, to describe assumptions and insights of practitioners, researchers and self, including how the information relates to professional educational practice.
2. Implement practices that strengthen the foundations for fluency.
3. Collaborate with a stakeholder to develop an artifact that addresses common questions or misunderstandings about math fluency.
4. Challenge the status quo through the development of a tech-infused assessment that measures student flexibility and strategy selection (rather than simply accuracy).
5. Design a fluency-focused unit of instruction that incorporates the principles, strategies, and structures presented in the text.

Writing Style Requirements:
Participants' writing will reflect the clarity, conciseness, and creativity expected of post-baccalaureate certificated educators.

Attendance and Make-up Policy:
Participants are expected to actively and collegially participate in all classes as a contributing member of a learning community.

Course Assignments, Assessment of Learning, and Grading System:

All course submissions must meet general graduate level standards through the use of correct grammar, spelling, and mechanics. Each paragraph should be clearly organized and include 5 sentences or more. If work does not meet the above criteria, it will be returned to the student for resubmission.

Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
Statement of Intention and Awareness	The evaluator will only review the Statement of Intention and Awareness for a response to each prompt. If a student does not respond to each prompt, the Statement will be returned to the student for resubmission. The student's Statement of Intention and Awareness will be evaluated as part of the Reflection.		
Investigation: Read and Respond	Coursework thoroughly and accurately addresses all question components by summarizing key concepts from readings. In at least half of the responses, the participant also makes inferences related to professional practice or supports answers with professional experiences.	Coursework thoroughly and accurately addresses all question components by summarizing key concepts from readings.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.

Investigation: Resource Review Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
Summary of Resource	Coursework summarizes the main ideas presented in the resource and includes at least one instance of critical analysis (i.e. asks questions, looks for gaps in information, disputes contradictions, etc.)	Coursework summarizes the main ideas presented in the resource.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.

Relation to Personal Assumptions or Course Content	Coursework provides more than one detailed example of how the resource supports or challenges personal assumptions and/or course content.	Coursework provides one example of how the resource supports or challenges personal assumptions and/or course content.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
Impact on Professional Practice	Coursework provides more than one clear explanation of how the information in the resource could impact professional practice.	Coursework provides one explanation of how the information in the resource could impact professional practice.	

Application Rubric	**A Grade = Outstanding Performance**	**B Grade = Target Performance**	**Below Target Performance**
Planning, Development and Execution	Coursework shows complete planning, development and/or execution of application, clear articulation of details and inclusion of polished required artifacts.	Coursework shows complete planning, development and/or execution of application and inclusion of required artifacts.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
	Coursework includes creative or innovative application of new knowledge and skills from course content to professional practice.	Coursework includes application of new knowledge and skills from course content to professional practice.	
Written Requirements	Coursework provides clear, logical, and organized responses to any writing prompts in the application. It also includes at least one detailed connection to course objectives, student learning goals or transformation of professional practice.	Coursework provides clear, logical, and organized responses to any writing prompts in the application.	

Reflection Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
Connection to Statement of Intention and Awareness	Coursework includes an evaluation of both learning goals articulated in the participant's Statement of Intention and Awareness from Module 1. Participant includes one future learning goal related to course content.	Coursework includes an evaluation of one of the learning goals articulated in the participant's Statement of Intention and Awareness from Module 1.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
Summary of Learning	Coursework includes three or more detailed connections to specific assignments completed or course content viewed (assigned readings or videos).	Coursework includes two general connections to course content.	
Description of Positive Influence or Transformation	Coursework includes two or more specific ideas for changes in one's professional practice with timelines. OR Coursework includes two or more detailed action steps with timelines for positively impacting other stakeholders.	Coursework includes one general idea for changes in one's professional practice. OR Coursework includes one action step for positively impacting other stakeholders.	

Course Calendar/Schedule: *(includes dates for topics, readings, assignments)*

This course is self-paced.

How much time should I be spending on a course?

To achieve the level of learning required participants should commit approximately 45 hours to successfully complete the substance and key assignments of a three-credit course.
In achieving mastery and/or deepening and sustaining their learning beyond the base requirements, participants may further engage with the course, materials, and concepts. This non-documented and informal exploration sometimes includes reflection, contextual contemplation, peer dialogue and sharing, applications, individual and group collaborative experiences, and/or other spontaneous activities.

Module 1

Intention and Awareness Statement

At Learners Edge, we want the time you spend learning to be purposeful and applicable to your professional practice. To get the most from professional learning, the research says we must first identify our goals and motivations. Next, we must assess our prior knowledge and previous experiences to create deeper connections to the course material. Using the guidelines below, develop your Statement of Intention and Awareness. At the end of the course, you will be asked to reflect back on your Statement of Intention and Awareness and identify your growth and transformation from the beginning of the course to the end.

Your evaluator will only review your Statement of Intention and Awareness for responses to each prompt, and as part of your Reflection in Module 3. If any responses are missing, this requirement will be returned to you for resubmission.

Please be certain to address the following when developing your Statement of Intention and Awareness in a total of two paragraphs, or more:

1. Describe your motivation for learning about strategies for developing math fluency in your students.
2. Summarize your previous knowledge about fluency strategies.
3. Share any previous experience you have with teaching math fluency.
4. List two learning goals you have for the course.

We are happy you are here! Thank you for taking this course with Learners Edge. As a reminder, all coursework must meet graduate level standards including grammar, spelling, and mechanics. Your responses should thoroughly and accurately address all questions/prompts by summarizing key concepts from readings. You are welcome to include inferences related to your professional practice or experiences to support your answers. If coursework does not meet these standards, it will be returned, and you will be asked to revise and resubmit your work based on the evaluator's feedback.

Thank you and enjoy your course! -Learners Edge

Note to participants: Before you begin reading the text, take a moment to complete this Math Identity Survey. Make your own copy by clicking on the "Use Template" button. You'll be asked to reflect on your responses in one of the questions that follow (Question "d").

2. Investigation: Read and Respond

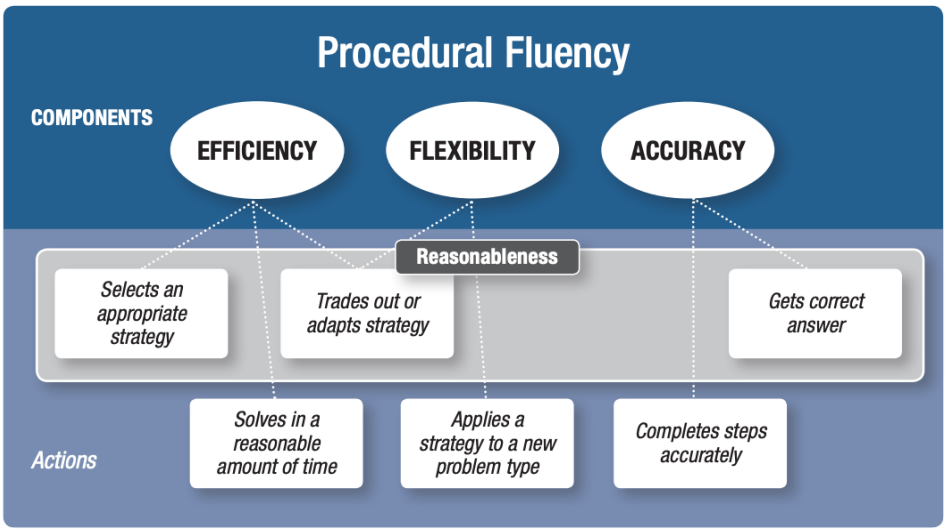
Throughout the text, the authors unpack and challenge what we *think* we know about math fluency using relatable research, clear frameworks and easy-to-implement strategies. In this course, we'll walk you through the learning journey chapter by chapter to help you build foundational knowledge and gather actionable strategies.

Chapter 1: What Does Fluency Really Mean and Why Does it Matter?

While often misused and misunderstood, most educators can agree that mathematical fluency is a critical component of balanced math instruction. But what does fluency really mean? Rather than memorization, regurgitation, and speed, fluency is rooted in conceptual understanding, involving flexible thinking, reasoning, and creativity.

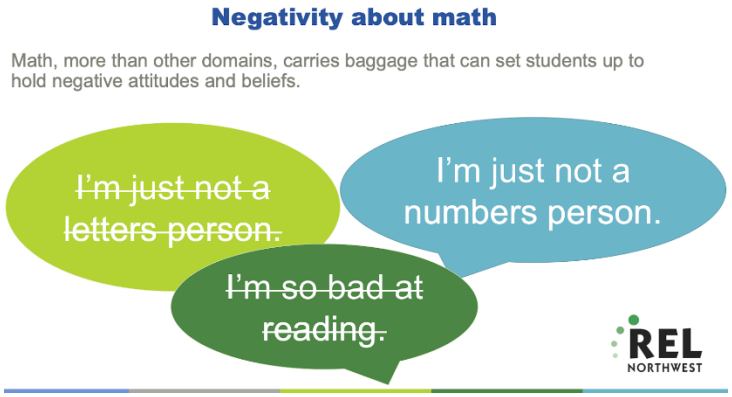
Throughout Chapter 1 there are opportunities to unlearn and relearn the nuances of fluency. To gain clarity and solidify your understanding, respond to each of the following prompts in one paragraph or more, unless otherwise noted:

FIGURE 1.5 ● Procedural Fluency Components, Actions, and Checks for Reasonableness



Source: Adapted with permission from D. Spangler & J. Wanko (Eds.), *Enhancing Classroom Practice with Research behind Principles to Actions*, copyright 2017, by the National Council of Teachers of Mathematics. All rights reserved.

a. Using Figure 1.5 (above) as an anchor, describe any new insights about fluency you've gained from the chapter.
b. Having a comprehensive understanding of what fluency looks like is essential to quality instruction. Review the Fluency Actions outlined in the chapter, then identify **one action you tend to focus on** in your classroom and **one that gets less attention**. Explain why this is and share how you'll commit to making all 6 actions more visible for stakeholders (students, families, admin).
c. As students carry out the Fluency Actions, there should be a constant flow of internal dialogue to check for reasonableness (ex. "Can I solve this in my head?"). The authors suggest providing frequent opportunities to model and discuss what is reasonable and what is not. Review the suggested routines, strategies, and activities for Checking for Reasonableness, then identify how you plan to include this practice in your classroom. Be sure to review the practices to *avoid* that are listed on p. 14-15 of the text.



Source

It is possible to reshape our own math identity in service of helping students craft theirs. Math can no longer be thought of as a secret society of brainiacs. It is accessible, rooted in all cultures, and part of our everyday lives.

– Rolanda Baldwin, What's Your Math Identity?

Respond to each of the prompts below, in one paragraph of more, to help solidify your understanding of the relationship between math identity, agency, and fluency.

d. After having completed the Math Identity Survey above, reflect on your responses. Summarize your math identity and explain any insights you gained from the exercise.
e. Thinking about your students, and your own history with math, describe 2 shifts you can make to better support positive math identity, and in turn, agency among your students. The resources linked below offer some great inspiration!
    - This article, "Using 4 Learner-Centered Routines to Build Positive Math Identity in Equitable Classrooms," by Laurie Speranzo and Kristin Klingensmith offers 4 great ideas to get you started.
    - The articles, "Exploring Our Complex Math Identities" by Keith R. Leatham and Diane S. Hill and "Developing Mathematics Identity" by Kasi Allen and Kemble Schnell offer additional inspiration.
    - For a list of children's books to spark conversation around math identity, check out the article, "15 Picture Books that Help Build a Positive Mathematical Identity" from Kids Math Talk.

Chapter 2: Fluency Fallacies and Related Truths
If reading about the fallacies presented in the chapter left you a bit disoriented, it's ok! Through your work in this course, you are embarking on a journey to gain better clarity, and prioritize an approach to math fluency grounded in truth and research.

Let's start with an examination of your current practices when compared with the fallacies and truths. Please respond to each of the prompts below in one paragraph or more.

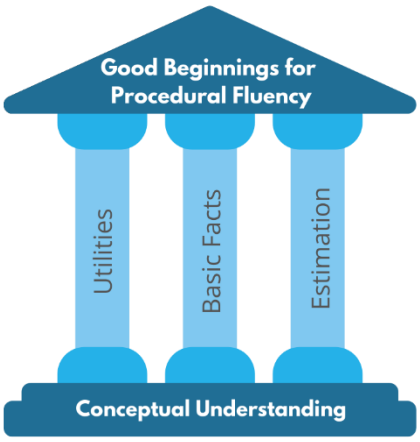
f. Which of the fallacies have become embedded in your classroom/school/district practices?
g. Which fallacy was the most surprising to you and why?
h. Which other fallacy(ies) have you encountered that you would add to the list? What is the related truth?
i. Now identify 2-3 fallacies you can commit to changing in your practice and describe the actions you will take to address them.

Since we're talking about ideas and practices to unlearn/relearn, what are some other actions you can correct? Read the article 13 Rules That Expire from the National Council of Teachers of Mathematics (NCTM) to understand how overgeneralization and imprecise vocabulary you may have unintentionally been teaching can actually lead to confusion later in a students' math career. Spread the word and share with colleagues!

Module 2

1. Chapter 3: Good (and Necessary) Beginnings for Fluency | Implement
"To figure out fluency, it must be understood and accessible; grounded in truths and research, not misconceptions; and built on a solid, substantial foundation…(74)"

Chapter 3 helps readers to gain a better grasp of the "solid, substantial foundation" necessary for better math fluency. The authors outline in detail the "necessary and good beginnings" that make up conceptual understanding and offer specific strategies to strengthen that foundation.



After reviewing the 3 "pillars" of conceptual understanding described in the chapter, identify 2 practices you'll adopt or adapt and 2 you will eliminate. Include at least 1 specific task, game, activity, or routine you'll implement for each "start doing" practice. You may recreate the table displayed below or create your own structure.

	Describe the practice	Provide a rationale for your decision	Identify a new/revised task, game, activity, or routine to implement
Eliminate			
Eliminate			
Adopt or Adapt			
Adopt or Adapt			

2. Chapter 5: Automaticity Beyond the Basic Facts

Despite what our childhood math classes might have taught us, automaticity goes beyond speedy fact recall and extends to recall of concepts and strategies. The authors state that automaticity is "the ability to complete a task with little or no attention to process." The fast recall of facts combined with the ability to summon reasoning strategies, supports and enables procedural fluency. And with continuous exposure and repeated practice mathematical procedures become just like walking or riding a bike– intuitive and reflexive!

For a quick word on automaticity and basic fact practice, watch the video below from Jennifer Bay-Williams

Now, review the Learning Progression for Basic Facts (Figure 5.1) and the 8 procedural automaticities presented in the chapter. Then choose one of the options below to develop a practice regimen for these (and other) important procedures.

Option A: Choose from the list

Identify **one or more** automaticities you teach from the list of 8 in the chapter. Now, describe 3 or more games, routines, or activities you will use to teach each of the automaticities chosen. You may use the activities and ideas presented in the chapter (modified to fit your grade level,

student needs, teaching style, curriculum requirements, etc.) or develop activities of your own. In your description, please include the following:

- Name of the automaticity you've chosen
- Title of the game, routine, or activity
- Brief description of the game, routine or activity (enough for a colleague to visualize how it will look in the classroom)
- Any modifications you'll make to account for learner differences, grade level, management considerations, curriculum requirements, etc.

Option B: **Choose your own**

Identify **one or more** procedural automaticities you teach (*not listed in the chapter*). Now, describe 3 or more games, routines, or activities you will use to teach each of the automaticities chosen. You may use the activities and ideas presented in the chapter (modified to fit your grade level, student needs, teaching style, curriculum requirements, etc.) or develop activities of your own. In your description, please include the following:

- Name of the automaticity you've chosen
- Title of the game, routine, or activity
- Brief description of the game, routine or activity (enough for a colleague to visualize how it will look in the classroom)
- Any modifications you'll make to account for learner differences, grade level, management considerations, curriculum requirements, etc.

3. Chapter 6: Fluency Practice is Not a Worksheet

Our text says that fluency is best realized through practice. But, what does quality practice look like? Hint: It's not a worksheet with 20+ problems to solve! Instead, quality practice should occur frequently, with focus, variation, time for processing, and opportunities to make connections.

Review the features of quality practice in Chapter 6, then create or modify a practice activity provided in the chapter for an existing curricular unit. **Choose from either a set of worked examples, routine, game, center, or independent practice activity.**

For this application, please submit the following:

- Type of fluency practice activity chosen
- Title of practice activity
- Brief description of the activity (enough for a colleague to visualize how it will look in the classroom), including length of time needed
- Any modifications you'll make to account for learner differences, grade level, management considerations, curriculum requirements, etc.

In addition to your practice activity, explain, in one paragraph or more, how your practice activity aligns with the 4 features of quality practice– focus, variability, processing, and connection.

4. Investigation: Resource Review

Please identify two resources related to (but not directly from) the course content that will enhance your professional practice and deepen your understanding of the course. For example, consider looking for resources that will:

- Allow you to extend your learning beyond the course
- Challenge your beliefs or assumptions
- Provide an alternative viewpoint to course content

Resources selected may be blogs, podcasts, websites, videos, documentaries, films, articles, books, journals or combination. Resources selected should be recent - published within the last five years.

Summarize what you learn from critically analyzing each resource. (Examples of critical analysis include asking questions, looking for gaps in information, disputing contradictions, etc.) Please explain how the resource supports or challenges your assumptions and/or course content and how the information presented will impact your professional practice.

To meet "A" criteria as outlined in the course rubric, please include at least two different examples detailing how the resource supports or challenges assumptions AND explain two ways this resource will impact your professional practice. Each resource review should total 2 paragraphs, or more. For each resource, include:

- Title
- Author
- Copyright or publishing date
- URL if applicable

Module 3

1. Chapter 7: Beyond Accuracy– What we need to assess and the tools to do it | Challenge the Status Quo

When you think about how you assess students, is your focus on correct answers? Traditional classroom assessments tend to stress accuracy over flexibility or strategy selection. The authors advocate for assessments that:

- attend to all components of procedural fluency more equitably,
- move beyond correct/incorrect and "solve" questions, shifting focus to "thinking" questions, and
- provide evidence of student ability to "use" and "choose" strategies.

Through small changes (and larger ones, too) you can shift your assessment practices to measure more than accuracy. After reading about the suggested assessment tools and strategies, explore the list of tech tools below to learn how you can boost the efficiency and effectiveness of your assessments. Select one to try out!

Google Forms and Sheets for observation record keeping
Google Sites for student portfolios
Google Jamboard and Equatio for annotating worked examples
Flipgrid to narrate mathematical thinking

Now that you have a better understanding of assessment best practices and have explored digital tools to build in efficiencies, you'll provide evidence of an assessment creation. You may create and share one of the following:

- Sample Google Form for observation
- Sample Google Site portfolio
- Sample Jamboard slide using the Equatio extension
- Flipgrid video with sample math explanation
- Another digital assessment artifact of your choosing

The text provides more information on the high-quality assessment types that you might consider/include as you create, such as checklists, rubrics, wording of assessment directions, observations, interviews, journal prompts, and self-assessments.

When you've completed your assessment creation, you can either grab a shareable link and paste it into your module response doc (be sure share settings are set to "anyone can view") or take a screenshot of your creation to paste into your module response document.

In addition to your digital sample, please explain, in one paragraph or more, how your creation will measure efficiency, flexibility, and/or accuracy.

2. Chapter 9: Fluency is the Focus– Planning, Agreement, and Action | Innovate
It's time to compile all of the ideas swirling around in your head into a fluency focused unit! Start by thinking about the units and topics you teach throughout the year. You'll want to select a unit that includes fluency as a focus.

For this application you will follow the unit planning process outlined in the text. Use the guiding questions provided in chapter 8 (pp.156-158) and chapter 9 (pp.192-198) to help you identify a unit and plan your modifications. To develop your unit, you may use the Math Fluency Mini-Unit Template provided or create an organizational structure of your own that includes the same criteria. Note: You are only required to share three days of lessons in this mini-unit, however, you can include more if you'd like.

If using the template provided, you may convert the completed document to a PDF and submit the PDF file to be evaluated or you may paste a sharable link to the completed template within your Module 3 response document. **If sharing a link, be sure share settings are set to "anyone can view."

3. Chapter 8: Engaging Families in Fluency | Collaborate
As you make adjustments to your math routines and practices, it's important to keep all stakeholders informed, especially caregivers. Caregivers, with their own personal histories and math identities, may need help to understand why new approaches are being implemented and learn ways to support students at home. Taking the time to build bridges between your math classroom and home helps to strengthen school-family partnership. And it's time well spent!

Consider the FAQs about fluency instruction listed in the chapter as well as any that you've encountered over the years. Connect with a colleague (co-teacher, teammate, instructional coach, or administrator) to brainstorm a list of any additional questions/concerns/areas of confusion you can proactively address. Together determine which items to focus on, then choose from one of the following options to address math instruction with caregivers:

- In-person/virtual event (open house, math night)
- Weekly Newsletter (one section devoted to math fluency)
- Math fluency-specific communication (hand-out, flyer, slideshow, email)
- Additions to a class website (revisions, additions to existing digital platform)
- Video demonstrations or explanations (shareable videos to demonstrate strategies and/or approaches)

Create an artifact for caregivers (or an outline if planning for future event/ communications) that addresses common questions/concerns/areas of confusion. Be sure your artifact or outline includes appropriate explanations and demonstrations of strategies and ideas, as well as a rationale grounded in the research. You are encouraged to incorporate visuals and examples that engage caregivers in hands-on learning.

Please share a link to your completed artifact/outline or upload it as a separate file to the module submission page.

4. Reflection
In two or more double-spaced pages, synthesize your learning from the course by summarizing what you will do differently as a result of your learning in your professional role moving forward. **To meet "A" criteria as outlined in the course rubric, your reflection should include:**

- An evaluation of your learning goals from your Statement of Intention and Awareness in Module 1 (In other words, how have you grown?)
- **Three or more** detailed connections to **specific** course applications, information from readings and other activities completed
- **Two or more** specific ideas for changes to one's professional practice including timelines OR **two or more** detailed action steps for positively influencing others with timelines (students, parents, colleagues, administrators, community members, etc.)
- **One** future learning goal you have related to course content

***Final paper/project due:** Spring Session: April 15
Summer Session: August 15
Fall Session: November 15

Related Professional Organizations:
Learning Forward Alaska
National Council of Teachers of Mathematics (NCTM)
American Mathematical Society

Course Texts, Readings, Handouts, and Library Reserve:

Required Text/Materials:

Text(s): *Figuring Out Fluency in Mathematics Teaching and Learning* by Jennifer M. Bay-Williams and John J. SanGiovanni
All articles and other resources are linked in the online environment, within their respective assignments.

Content References:
Knowledge Base: The knowledge base of this course, in part, is affirmed in the writing and research of these references:

Bay-Williams, J. M., & Kling, G. (2019). *Math fact fluency: 60+ games and assessment tools to support learning and retention*. ASCD.
Chval, K. B., Smith, E., Marcela, T. C. L., & Pinnow, R. J. (2021). *Teaching math to multilingual students: Positioning English learners for Success: Grades K-8*. Corwin, a SAGE Company.
Liljedahl, P. (2021). *Building Thinking Classrooms in mathematics 14 teaching practices for enhancing learning: Grades K-12*. Corwin.
Marzano, R. J. (2017). *The new art and science of teaching*. Solution Tree Press.
Matthews, L. E. (2022, March 11). *Engaging in culturally relevant math tasks*. Corwin. Retrieved March 14, 2022, from https://us.corwin.com/en-us/nam/engaging-in-culturally-relevant-math-tasks/book276133
Newton, N., Record, A. E., & Mello, A. J. (2020). *Fluency doesn't just happen with addition and subtraction: Strategies and models for teaching the basic facts*. Routledge.
Principles to Actions: Ensuring Mathematical Success for All. Nctm.org. (n.d.). Retrieved March 14, 2022, from https://www.nctm.org/PrinciplestoActions/
SanGiovanni, J., Dykema, K., & Katt, S. (2020). *Productive math struggle: A 6-point action plan for fostering perseverance*. Sage.

Course Policies:

Incomplete Grades
Due to the nature of this course, grades of incomplete will not be permitted.

ADA Policy
The provision of equal opportunities for students who experience disabilities is a campus-wide responsibility and commitment. Disabilities Support Services (DSS) is the designated UAA department responsible for coordinating academic support services for students who experience disabilities. To access support services, students must contact DSS (786-4530 or 786-4536 TTY) and provide current disability documentation that supports the requested services. Disability support services are mandated by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. Additional information may be accessed at the DSS Office in Business Education Building (BEB105) or on-line at www.uaa.alaska.edu/dss.

Academic Dishonesty Policy
Academic integrity is a basic principle that requires all students to take credit only for the ideas and efforts that are their own. Cheating plagiarism, and other forms of academic dishonesty are defined as the submission of materials in assignments, exams, or other academic work that is based on sources prohibited by the faculty member. Academic dishonesty is defined further in the "student Code of Conduct." In addition to any adverse academic action that may result from the academically dishonest behavior, the University specifically reserves the right to address and sanction the conduct involved through student judicial review procedures and the Academic Dispute Resolution Procedure specified in the University catalog.

Professional and Ethical Behavior
University of Alaska Anchorage College of Education students are expected to abide by the State of Alaska Code of Ethics of the Education Profession and professional teaching standards as they concern students, the public, and the profession. The standards, adopted by the Professional Teaching Practices Commission, govern all members of the teaching profession. A violation of the code of ethics and professional teaching standards are grounds for revocation or suspension of teaching certification.

Technology Integration
University of Alaska Anchorage College of Education students are expected to (a) demonstrate sound understanding of technology operations and concepts; (b) plan and design effective learning environments and experiences supported by technology; (c) implement curriculum plans that include technology applications in methods and strategies to maximize student learning; (d) facilitate a variety of effective assessment and evaluation strategies; (e) use technology to enhance productivity and professional practice; and (f) understand the social, ethical, and human issues surrounding use of technology in PreK-12 schools and apply those principles in practice.