

## MALLI Preservice Teacher Survey - Baseline

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Santa Clara University, University of Texas, San Antonio and the University of California at Santa Cruz are working with Education Northwest to study how participation in the Math and Language, Literacy Integration (MALLI) program affects teachers and students.

MALLI provides professional development to preservice teachers, like you, through university coursework focused on bilingual mathematics education. The training integrates the teaching of language and mathematics. Preservice teachers are also supported by mentor teachers who receive similar training.

Your responses to this survey will help us understand the program's effects. This survey should take about 20 minutes to complete. It includes questions about your background, your perception of your efficacy in teaching students, especially bilingual students; and your understanding of principles of integrating language and literacy into mathematics instruction.

Participation in this survey is voluntary, and your responses will remain confidential. Survey responses will be stored in a secure folder at Education Northwest server. There are no right or wrong answers. You may choose not to respond to items you are uncomfortable with, and you may discontinue participation at any time, without consequence to you. Information collected from this survey will be used to inform the evaluation and research related to math instruction in dual language setting. Results from the evaluation will help improve the MALLI program, and similar programs for future participants. Your answers will not be used to evaluate your performance as a teacher or teacher candidate. All responses will be reported as a group (in aggregate), and individual responses will never be shared with anyone outside of the MALLI research team.

Your participation in this survey poses no personal or professional risks to you. Please contact Manuel Vazquez at [manuel.vazquez@educationnorthwest.org](mailto:manuel.vazquez@educationnorthwest.org) or (503) 278-9597 if you have any questions.

1. Do you agree to participate in this survey?
  - a. Yes
  - b. No [skip to "Thank you" page]



## Section I. Reading Math Texts & Writing About Math

This section is about teaching bilingual students reading and writing strategies during math instruction.

2. How important are the following during math instruction in bilingual classrooms?

	<b>A little important</b>	<b>Moderately important</b>	<b>Important</b>	<b>Very important</b>
Writing like a mathematician				
Reading math textbooks				
Writing in either language during math, regardless of the language of instruction				
Using reading strategies to comprehend math texts				
Using mathematical reasoning when they read and write about math				
Writing out procedures for solving problems				

3. Overall, how useful do you think it is to teach bilingual students how to read math texts and write about math during math lessons?

- a. Not useful at all
- b. Somewhat useful
- c. Useful
- d. Very useful

## Section II. Math Vocabulary

This section is about teaching bilingual students math vocabulary during math instruction.

4. How important are the following during math instruction in bilingual classrooms?

	A little important	Moderately important	Important	Very important
Using precise math terms as a way to deepen mathematical thinking				
Providing multiple exposures to see and use math vocabulary				
Connecting what students know about a word to what they don't know				
Going beyond memorization of definitions				
Helping students interpret meaning by combining their knowledge of				

English and their native language				
Illustrating relationships between words				

5. Overall, how useful do you think it is to teach bilingual students to understand and use math vocabulary?

- Not useful at all
- Somewhat useful
- Useful
- Very useful

### Section III. Discourse

This section asks your beliefs about student discourse in mathematics.

6. How important are the following during math instruction in bilingual classrooms?

	A little important	Moderately important	Important	Very important
Providing opportunities for bilingual students to explain their mathematical thinking in either language				
Having students talk about math to make sense of mathematical ideas				
Teaching students to make good mathematical argument by taking a position and supporting it with evidence				
Having bilingual students explain math ideas to each other				
Helping bilingual students understand how talking about math concepts differs from talking about concepts from other subjects				

Teaching bilingual students how to talk about math in a way that reinforces math content learning and reasoning				
Teaching bilingual students to make mathematical arguments using math-specific grammar, vocabulary, and symbols				

7. Overall, how useful do you think it is to teach bilingual students how to talk about math during math lessons?

- Not useful at all
- Somewhat useful
- Useful
- Very useful

#### Section IV. Ability to Teach Math to Bilingual Students

This section asks about teaching math to bilingual students.

8. For each item, please indicate the degree to which you agree or disagree with the following statements. If you don't have enough information or teaching experience to answer the question, select "Don't know."

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
I find it difficult to explain math lessons in <u>English</u> to bilingual students.					
I find it difficult to explain math lessons in <u>Spanish</u> to bilingual students.					
I do not have enough training to teach math effectively to bilingual students.					
I am better at teaching math than I am at teaching most other subjects.					

I am confident assessing bilingual students' math learning in <u>English</u> .					
I am confident assessing bilingual students' math learning in <u>Spanish</u> .					
I can teach in a way that helps bilingual students like math.					

## Section V. Teacher Experience and Expectations

The following questions ask about your previous classroom experience.

9. Please fill in the number of years and months of previous classroom experience, as a teacher, volunteer, tutor, or assistant (including during your credential program), up to and through this school year. [fill in, validation for numbers]
  - Years:
  - Months:
  
10. Do you have any prior classroom experience teaching math besides required fieldwork?
  - Yes [if yes prompt to describe]
  - No
  
11. Please describe your math teaching experience (include any experience teaching bilingual students) (open response)
  
12. Do you have any prior classroom experience teaching bilingual students?
  - Yes [if yes prompt to describe]
  - No
  
13. Please describe your experience teaching bilingual students (open response)

The following questions focus on teaching bilingual students.

14. How confident are you in your ability to...

	Not at all confident	Somewhat confident	Confident	Very confident
Teach the specific meaning of words used in mathematics in <u>English</u> ?				
Teach the specific meaning of words used in mathematics in <u>Spanish</u> ?				
Develop students' ability to read and write about mathematics in <u>English</u> ?				



Develop students' ability to read and write about mathematics in <u>Spanish</u> ?				
Teach students' how to talk about mathematics (such as explaining math solutions) in <u>English</u> ?				
Teach students' how to talk about mathematics (such as explaining math solutions) in <u>Spanish</u> ?				

15. How would you describe your current knowledge in the following areas?

	<b>I have very limited or no understanding</b>	<b>I can identify important elements or processes</b>	<b>I can explain elements or processes to another person</b>	<b>I have deep knowledge in this area</b>
Theories of how people learn languages				
Designing active and demanding bilingual instruction to support students in meeting academic standards				
Supporting <u>English</u> language development				
Supporting <u>Spanish</u> language development				
Collaborating with other teachers to support bilingual students' learning				

Communicating with families of bilingual students to support their learning				
Best practices for the assessment of bilingual students				
Considering bilingual students' family circumstances, language use, and literacy practices to develop effective instructional practices.				
Modeling professionalism and leadership in teaching bilingual students				
School, district, and governmental policies, practices, and legislation that impact bilingual education				
Providing a caring, supportive, and warm learning environment for bilingual students				
Differentiating instruction for Spanish and English-dominant students				

16. What motivated you to participate in the MALLI program? (open)

### Section VI. Your Background

Finally, please tell us a little bit about yourself.

17. I identify as...

- Male
- Female
- \_\_\_\_\_

18. How do you identify your race/ethnicity? (check all that apply)

- Latinx/Hispanic [route to 19]
- White
- Black/African American
- Asian

- American Indian / Alaska Native
- Native Hawaiian or Pacific Islander
- Multiracial
- Other: \_\_\_\_\_

19. How do you identify your Latinx/Hispanic heritage?

- Argentinian
- Bolivian
- Chilean
- Colombian
- Costa Rican
- Cuban
- Dominican
- Ecuadorian
- Equatoguinean
- Guatemalan
- Honduran
- Mexican American/Chicano
- Mexican
- Nicaraguan
- Panamanian
- Paraguayan
- Peruvian
- Puerto Rican
- Salvadoran
- Spanish
- Uruguayan
- Venezuelan
- Other

20. What is your age? [Dropdown menu with options: 17 or younger, 18-20, 21-29, 30-39, 40-49, 50-59, 60 or older]

21. What is your level of proficiency in English and Spanish? Use the guidance below to select your response.

**Intermediate proficiency:** I can understand the main idea and some pieces of information, participate in conversations, communicate information and express my thoughts, and write simple messages about *familiar topics*. **I am comfortable speaking with students and parents about school, and can write simple messages to them.**

**Advanced proficiency:** I can understand the main message and details, maintain conversations and discussions, as well as deliver detailed and organized presentations and write about *familiar and unfamiliar concrete topics across various time frames*. **I am comfortable speaking with and writing to other teachers about a broad range of topics.**

**Distinguished proficiency:** I can understand and create sophisticated texts, interact, negotiate, and debate, and deliver sophisticated and articulate presentations *on a wide range of issues and highly abstract concepts, with deeply embedded cultural references*. **I would be comfortable giving an academic presentation in another country in this language.**

**Superior proficiency:** I can understand and create complex texts, participate in discussions and debates supporting arguments and exploring hypotheses, and deliver extended presentations *on abstract or hypothetical topics ranging from general knowledge to areas of specialized expertise*. **I can confidently speak and write at a professional level.**

	English	Spanish
Reading	{dropdown menu}	{dropdown menu}
Writing	{dropdown menu}	{dropdown menu}
Speaking	{dropdown menu}	{dropdown menu}
Listening	{dropdown menu}	{dropdown menu}

\*Dropdown menu items: Intermediate, Advanced, Distinguished, Superior

22. Please check any that apply to you

- I attended one or more years of K-12 school outside of the U.S.
- I completed high school outside of the U.S.
- I attended one or more years of college outside of the U.S.
- I completed college outside of the U.S.
- I attended college outside of the U.S. as part of a study abroad program
- When I grew up, I spoke English in my home.
- When I grew up, I spoke Spanish in my home.
- When I grew up, I spoke another language in my home. \_\_\_\_\_
- I attended a dual language school

23. Do you speak any languages in addition to English and Spanish?

- Yes
- No

24. [if yes] Which language(s)?

25. What is the highest level of education you have completed?

- High school diploma or GED
- Associate degree
- Bachelor’s degree
- Master’s degree
- Doctorate

26. Did you earn, or are you in the process of earning a major or minor in the following content areas?

	Major	Minor	Neither
Mathematics			
Language other than English			
Spanish language or literature			

27. What best describes your current employment status?

- Employed full time
- Employed part time
- Looking for full time employment
- Looking for part time employment
- Not employed and not looking for employment
- Other: \_\_\_\_\_

28. [if employed] On average, how many hours do you work per week?

29. [if employed] Please describe your paid employment

30. What are your professional goals for the next five years? (check all that apply)

- A. Become an elementary classroom teacher
- B. Teach in a dual language/bilingual classroom
- C. Become an English as a Second Language /English Language Development specialist
- D. Become a math specialist
- E. Become a literacy specialist
- F. Provide instructional coaching/support to other teachers
- G. Gain experience as an administrator

H. Earn a graduate degree

I. Other: \_\_\_\_\_

31. Where do you hope to teach after graduating from this program? (check all that apply)

- In the school where I do my student teaching
- In a local school district
- Within the state, but likely in a different city/region
- Out of state
- Not sure

32. We would like to follow up with you after you complete your preservice experience to hear your reflections on the MALLI training and find out how you used what you learned. Please provide an email address where we can contact you to follow up: [open, validate for email]

### **Section VII. Thank you!**

Thank you for taking our survey. We will be following up with you after you finish MALLI, and then annually each spring until the grant is complete. Your responses will help improve the MALLI program for other students like you.

If you have any questions or additional comments about this survey please contact Manuel Vazquez at [manuel.vazquez@educationnorthwest.org](mailto:manuel.vazquez@educationnorthwest.org) or (503) 278-9597.

## Preservice Teacher Survey – Follow up

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Santa Clara University, University of Texas, San Antonio and the University of California at Santa Cruz are working with Education Northwest to study how participation in the Math and Language, Literacy Integration (MALLI) program affects teachers and students.

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1. Do you agree to participate in this survey?
  - a. Yes
  - b. No [skip to “Thank you” page]





## Section I. Reading Math Texts & Writing About Math

This section is about teaching bilingual students reading and writing strategies during math instruction.

2. How important are the following during math instruction in bilingual classrooms?

	A little important	Moderately important	Important	Very important
Writing like a mathematician				
Reading math textbooks				
Writing in either language during math, regardless of the language of instruction				
Using reading strategies to comprehend math texts				
Using mathematical reasoning when they read and write about math				
Writing out procedures for solving problems				

## Section II. Math Vocabulary

This section is about teaching bilingual students math vocabulary during math instruction

3. How important are the following during math instruction in bilingual classrooms?

	A little important	Moderately important	Important	Very important

Using precise math terms as a way to deepen mathematical thinking				
Providing multiple exposures to see and use math vocabulary				
Connecting what students know about a word to what they don't know				
Going beyond memorization of definitions				
Helping students interpret meaning by combining their knowledge of English and their native language				
Illustrating relationships between words				

4. Overall, how confident do you feel in teaching bilingual students to understand and use math vocabulary?
- Not confident
  - Somewhat confident
  - Confident
  - Very confident

### Section III. Discourse

This section asks your beliefs about student discourse in mathematics.

5. How important are the following during math instruction in bilingual classrooms?

	A little important	Moderately important	Important	Very important
Bilingual students need opportunities to explain their mathematical thinking in either language.				
Talking about math is an important part of making sense of mathematical ideas.				
A good mathematical argument requires that bilingual students take a position and support it with evidence.				
Bilingual students need to learn how to explain math ideas to each other.				
Talking about math differs from how we talk about other subjects.				
Teaching bilingual students how to talk about math reinforces math content learning and reasoning.				
Mathematical arguments make use of grammar, vocabulary, and symbols specific to math.				

6. Overall, how useful do you think it is to teach math discourse during math lessons?

- Not useful at all
- Somewhat useful
- Useful
- Very useful

### Section IV. Ability to Teach Math to Bilingual Students

This section asks about teaching math to bilingual students.

7. For each item, please indicate the degree to which you agree or disagree with the following statements. If you don't have enough information or teaching experience to answer the question, select "Don't know."

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
I find it difficult to explain math lessons to <u>English</u> to bilingual students					
I find it difficult to explain math lessons to <u>Spanish</u> to bilingual students					
I do not have enough training to teach math effectively to bilingual students.					
I am better at teaching math than I am at teaching most other subjects.					
I am confident assessing bilingual students' math learning in <u>English</u> .					
I am confident assessing bilingual students' math learning in <u>Spanish</u> .					
I can teach in a way that helps bilingual students like math.					



## Section V. Teacher Experience and Expectations

The following questions focus on teaching bilingual students.

8. How confident are you in your ability to..

	Not at all confident	Somewhat confident	Confident	Very confident
Teach the specific meaning of words used in mathematics in <u>English</u> ?				
Teach the specific meaning of words used in mathematics in <u>Spanish</u> ?				
Develop students' ability to read and write about mathematics in <u>English</u> ?				
Develop students' ability to read and write about mathematics in <u>Spanish</u> ?				
Teach students how to talk about mathematics (such as explaining math solutions) in <u>English</u> ?				
Teach students how to talk about mathematics (such as explaining math solutions) in <u>Spanish</u> ?				

9. How would you describe your current knowledge in the following areas?

	<b>I have very limited or no</b>	<b>I can identify important elements or processes</b>	<b>I can explain elements or processes to another person</b>	<b>I have deep knowledge in this area</b>

	<b>understanding</b>			
Theories of how people learn languages				
Designing active and demanding bilingual instruction to support students in meeting academic standards				
Supporting <u>English</u> language development				
Supporting <u>Spanish</u> language development				
Collaborating with other teachers to support bilingual student's learning				
Communicating with families of bilingual students to support their learning				
Best practices for the assessment of bilingual students				
Considering bilingual student's family circumstances, language use, and literacy practices to develop effective instructional practices.				
Modeling professionalism and leadership in teaching bilingual students				
School, district, and governmental policies, practices, and legislation that impact bilingual education				
Providing a caring, supportive, and warm learning environment for bilingual students				
Differentiating instruction for Spanish and English-dominant students				

**Section VI: Experiences in MALLI program**

This section asks questions about your experiences as a student in the MALLI program.

10. To what extent do you agree with the following statements about the video club activity?

	Strongly disagree	Disagree	Agree	Strongly agree
The video club activity was very <u>useful</u> for me to support emergent bilinguals				
The video club activity was very <u>effective</u> for me to support emergent bilinguals				
The video club activity improved my ability to design lessons that integrate language and literacy in math instruction				
The video club activity improved my ability to deliver effective mathematics lessons for emergent bilinguals in <u>English</u> .				
The video club activity improved my ability to deliver effective mathematics lessons for emergent bilinguals in <u>Spanish</u> .				

11. To what extent do you agree with the following statements about the MALLI math methods courses?

	Strongly disagree	Disagree	Agree	Strongly agree
MALLI's math methods courses were very <u>useful</u> for me to support emergent bilinguals.				
MALLI's math methods courses were very <u>effective</u> for me to support emergent bilinguals.				
MALLI's math methods courses improved my ability to design lessons that integrate language and literacy in math instruction.				
MALLI's math methods courses improved my ability to deliver effective mathematics lessons for emergent bilinguals in <u>English</u> .				
MALLI's math methods courses improved my ability to deliver effective mathematics lessons for emergent bilinguals in <u>Spanish</u> .				

12. To what extent do you agree with the following statements about your mentor? My mentor...



	Strongly disagree	Disagree	Agree	Strongly agree
Provided me with feedback about my teaching frequently enough.				
Offered concrete suggestions frequently enough.				
Asked reflective questions frequently enough.				
Analyzed student work with me frequently enough.				
Modeled instructions that links mathematics with literacy.				
Modeled effective ways of teaching mathematics vocabulary.				
Modeled effective ways to promote student discourse during math class.				
Modeled how to assess bilingual students to understand mathematical learning.				
Modeled how to use student work to reflect on one's instruction.				
Improved my ability to teach math in a dual language classroom setting.				

13. To what extent do you agree with the following statements about MALLI?

	Strongly disagree	Disagree	Agree	Strongly agree
Participating in MALLI improved my ability to integrate language, literacy and math instruction.				
Overall, MALLI was effective in preparing me to serve emergent bilingual students.				
MALLI was effective in increasing my knowledge and skills related to parent, family, and community engagement.				
I am able to implement the MALLI model at my school.				

## Section VI. Your Background

Finally, please tell us a little about yourself.

14. Have you secured a teaching position for next school year?
- Yes
  - No
15. (if selected yes to Q14) Where will you be teaching next year?
- Name of school \_\_\_\_\_
  - School district: \_\_\_\_\_
16. (if selected yes to Q14) Will you be teaching in a dual language classroom?
- Yes
  - No
  - Don't know
17. (if selected yes to Q18) What grades will you be teaching? (select all that apply)
- |                                  |                          |
|----------------------------------|--------------------------|
| <input type="radio"/> Don't know | <input type="radio"/> 6  |
| <input type="radio"/> K          | <input type="radio"/> 7  |
| <input type="radio"/> 1          | <input type="radio"/> 8  |
| <input type="radio"/> 2          | <input type="radio"/> 9  |
| <input type="radio"/> 3          | <input type="radio"/> 10 |
| <input type="radio"/> 4          | <input type="radio"/> 11 |
| <input type="radio"/> 5          | <input type="radio"/> 12 |

## Section VII. Thank you!

Thank you for taking our survey. We will be following up with you annually each spring until the grant is complete (2022). Your responses will help improve the MALLI program for other students like you.

If you have any questions or additional comments about this survey please contact Manuel Vazquez at [manuel.vazquez@educationnorthwest.org](mailto:manuel.vazquez@educationnorthwest.org) or (503) 278-9597.

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