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## Background

- Despite the rise in multilingual (ML) learners in U.S. schools, most general teacher preparation and in-service professional development (PD) programs dedicate little coursework or practical experiences to developing effective pedagogical practices that address the specific learning needs of MLs (Heineke & Vera, 2023; Santibañez & Gándara, 2018).
- In order to reduce inequalities in academic outcomes for MLs, **all** teachers must be better prepared to effectively instruct MLs (García & Kleyn, 2013).

## Research Aims & Questions

### Study Aims

- Identify mainstream elementary teachers' perceived areas for growth in pedagogical content knowledge (PCK) areas related to literacy and content instruction
- Identify MLs' perceived areas of challenge in literacy learning and language development
- Compare the two groups' findings for the purpose of generating insight into future teacher professional development offerings

### Research Questions

- In which areas of PCK competence do mainstream elementary teachers of MLs perceive a need for further development?
- What areas of literacy, language, and academic learning do elementary MLs perceive as challenging?
- How do teachers' perceptions of PCK competence compare with students' perceptions of competence in literacy, language, and academic learning?

## Theoretical Framework

### Pedagogical Content Knowledge (PCK)

Effective teachers must develop the awareness to discern and select the most comprehensible approaches for teaching particular concepts respective to students' diverse learning needs and developmental stages (Shulman, 1986).

### Perceived Competence and Autonomy-Supported Learning Environments

Basic Needs Theory, a sub-theory within Self-Determination Theory (Ryan & Deci, 2020), is defined by the fulfillment of three psychological needs: autonomy, relatedness, and competence. When these needs are met, students are more likely to be intrinsically motivated and achieve at higher levels. This study focuses on the competence aspect of BST, exploring teachers' and students' self-identified perceptions of competence, or a sense that one can master the knowledge needed to be successful in literacy teaching and learning, respectively. (Deci & Ryan, 2004; Froiland & Oros, 2014).

## Study Design & Methods

This investigation utilized selected data collected from 30 K-12 teachers and their students who were originally recruited as part of a larger design-based research (DBR) study seeking to improve teachers' capacity for multilingual (ML) instruction within a culturally and linguistically diverse school district in a southeastern state.

### Present Study Participants

Participants from the larger DBR study were included for the present study if they met the following criteria:

Teachers (n = 22)	Students (n = 27)														
<ul style="list-style-type: none"> <li>Currently teaching elementary (K-5)</li> <li>Identified as having MLs in their classes currently or in the past</li> </ul>	<ul style="list-style-type: none"> <li>Elementary (K-5)</li> <li>Identified as receiving English language services currently or in the past</li> </ul>														
<ul style="list-style-type: none"> <li>Some teachers identified a range of elementary grades they are qualified to teach and some identified the grade level they were currently teaching</li> <li>All teacher participants for this study were in the range of K-5</li> </ul>	<table border="1"> <thead> <tr> <th>Grade</th> <th>n</th> </tr> </thead> <tbody> <tr> <td>Kindergarten</td> <td>10</td> </tr> <tr> <td>First</td> <td>2</td> </tr> <tr> <td>Second</td> <td>2</td> </tr> <tr> <td>Third</td> <td>9</td> </tr> <tr> <td>Fourth</td> <td>1</td> </tr> <tr> <td>Fifth</td> <td>3</td> </tr> </tbody> </table>	Grade	n	Kindergarten	10	First	2	Second	2	Third	9	Fourth	1	Fifth	3
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Fifth	3														

### Data Collection

- In the larger DBR study, teachers filled out a survey with both open- and closed-ended questions, and also administered a needs assessment survey to their students.
- The current study analyzed teachers' responses from the following question referencing instructional strategies related to literacy teaching: **"Is there any knowledge listed above, in particular, that you would like help with?"** Three rounds of responses collected in the spring, summer, and fall of 2022 were analyzed for a total of 48 responses from 22 teachers.
- The following student survey question was analyzed: **"Is there any learning that the student feels they struggle with?"** One round of student responses was analyzed for a total of 27 ML responses.

### Method of Analysis & Results

- Following the grounded theory method of analysis (Charmaz, 2014), two coders individually generated emergent action-based initial codes for each teacher and student response in the dataset and discussed coding until 100% inter-rater agreement was reached for a total of 20 unique initial teacher codes and 7 unique student codes
- Focused codes were developed by comparing and synthesizing salient themes within the initial codes
- Theoretical codes were generated by comparing focused codes within and across the teacher and student groups to form a summarizing statement of each groups' perceptions as well as connect perceptions to the theoretical frameworks (PCK and perceived competence within the BNT sub-theory).

## Grounded Theory Analysis & Results

Table 1

Progression from Initial to Theoretical Codes for Teacher and Student Responses

Teacher Initial Codes	Teacher Focused Codes	Teacher Theoretical Code
Teaching academic writing to students with low motivation	Needing support in writing instructional strategies while	Teachers identify a need for more explicit education in instructional strategies that allow for concurrently supporting individual learners' emerging English language development as well as foundational literacy skills.
Getting help with writing strategies	simultaneously supporting students' use of writing to	
Supporting the writing development of ESOL students	develop academic content and motivation	
Using writing to introduce and extend academic knowledge		
Training in writing instruction.		
Creating writing lessons		
Using assessments to design small group instruction	Differentiating learning in small group instruction and making	Differentiating learning in small group instruction and making meaningful
Providing small group instruction for individualized learning	small group instruction	
Making small group time meaningful		
Applying PD coursework to small group instruction		
Learning strategies for language acquisition	Knowing how to provide language support that promotes	
Providing language support	language acquisition	Improving instruction to solidify foundational literacy concepts
Learning strategies to teach basic foundational skills		
Teaching foundational strategies		
Teaching reading skills for early childhood	Needing direction in supporting students' vocabulary	
Learning strategies to teach decoding/ Learning about small group instruction	development and foundational reading skills	
Training in vocabulary instruction		Analyzing performance data and effectively communicating it to students
Helping ELLs orally decode & blend English words		
Providing feedback to students for instructional needs.		
Maintaining useful student progress data		
Student Initial Codes	Student Focused Codes	Student Theoretical Code
Struggling to communicate	Communicating effectively in early stages of language	Students identify challenges in developing foundational language skills for communication, literacy, and academic success, and these challenges may negatively influence their academic identity development.
Struggling with language skills	development	
Struggling with reading	Developing foundational literacy skills	Developing foundational literacy skills
Struggling with writing		
Identifying as "not good" in ELA	Developing a negative academic identity as an ELA student.	
Struggling with math	Experiencing challenges meeting disciplinary-specific standards	
Needing help telling time		

## Discussion & Implications

- Mainstream elementary teachers and elementary MLs both reported a need for explicit knowledge development in foundational areas of literacy teaching and learning, respectively, drawing a connection between the two sets of competencies
- The theoretical code for teachers emphasized their need for further training in *how* to teach foundational literacy skills that is also supportive of language development in the emergent stages
- Theoretical code for MLs demonstrated a knowledge gap in the *what* – the language, literacy, and academic content that is suitable for simultaneous emergent literacy and English development

- By comparing theoretical codes, we can make connections to how teachers' PCK competence may impact MLs' perceived competence
- When teachers perceive a need for more direct guidance in foundational skills instruction, students perceive their efforts as 'struggling' and may incorrectly attribute these struggles as personal deficits
- Understanding the connection between teachers' PCK competence and MLs' perceived competence can inform tailored PD in this district



References & Contact