Rethinking teacher preparation:

# The critical role of metacognitive development

by *Swivl*

The pattern of early-career attrition presents teacher education programs with a crucial challenge: developing teachers with the necessary skills to persist and thrive in the face of classroom challenges.

**NEARLY 50%**

OF NEW TEACHERS LEAVE THE PROFESSION WITHIN THE FIRST 5 YEARS

What are the skills needed to help teachers overcome the challenges that typically drive new teachers from the classroom?

Research has discovered that the development of metacognitive capabilities during teacher education serves as a crucial foundation for career resilience.

This white paper explores why metacognitive capabilities help teachers stay within the profession and how Swivl is pioneering solutions to support professors and students in this essential journey.

# Why metacognitive skills matter

A study published by Teacher Education Quarterly in 2006 demonstrated that teachers who develop strong metacognitive abilities during their education demonstrate both resilience and persistence, enabling them to remain in the profession despite facing the same challenges that cause others to leave.

This study identified two essential metacognitive skills developed during teacher preparation that directly contribute to increased teacher retention:

1. Critical reflection as a problem-solving tool
2. Self-efficacy in teaching abilities

**Metacognition is the ability to analyze, reflect on, and actively regulate one's own thinking and decision-making processes – a critical skill that enables teachers to systematically solve problems, adapt their practices, and grow professionally.**

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# Critical reflection as a problem-solving tool

Critical reflection serves as a powerful framework for success in the classroom, equipping teachers with a systematic approach to understanding and addressing challenges. The research reveals that teachers who employ critical reflection can:

- methodically break down complex classroom situations,
- analyze their root causes,
- and develop targeted solutions rather than relying on reactive responses.

For example, when confronted with student behavioral challenges, teachers trained in critical reflection first investigate underlying causes, such as changes in home environment or learning difficulties, before determining appropriate interventions.

This systematic approach to problem-solving extends beyond immediate classroom management. Teachers who master critical reflection demonstrate a unique ability to connect their theoretical knowledge with practical application, leading to more meaningful and lasting changes in their classrooms.

**Critical reflection enables educators to bridge theory and practice, catalyzing meaningful classroom transformation.**

Teachers who consistently draw upon their educational background and research understanding to inform their decisions create a bridge between what they learned in their preparation programs and their daily teaching practice helping them solve immediate problems and build a sustainable framework for addressing future challenges.

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# Self-efficacy in teaching abilities

The development of teacher self-efficacy emerges as a critical factor in career success, with research showing it is built primarily through meaningful field experiences connected to theoretical coursework.

When teacher preparation programs provide structured opportunities that link classroom learning with authentic teaching experiences, candidates develop genuine confidence in their abilities. This confidence isn't merely about feeling capable - it's about developing a deep understanding of how to effectively implement teaching strategies and handle classroom challenges.



This foundation of self-efficacy has profound implications for first-year teaching success. Teachers who enter the profession with high levels of self-efficacy, developed through successful student teaching experiences, show greater competence. Rather than being paralyzed by challenges, these teachers approach problems with confidence, drawing on their previous successful experiences to inform their decisions.

**High self-efficacy, developed through successful student teaching experiences, empowers new teachers to approach classroom challenges with resilience and adaptability.**

Most significantly, teachers with strong self-efficacy persist in finding solutions when faced with classroom challenges, showing resilience even when initial strategies prove unsuccessful.

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# Tools for metacognitive growth

For over thirteen years, Swivl has been at the forefront of developing innovative solutions for teacher preparation programs, focusing on the critical need to develop strong metacognitive skills in future educators. Our deep understanding of the challenges facing teacher education has led us to create tools that support the development of the reflective capabilities that research shows are essential for teacher success and retention.

Our newest solutions, M2 and MirrorTalk, represent a significant advancement in supporting metacognitive development in teacher candidates. These tools work in harmony to create a comprehensive system for developing critical reflection skills.
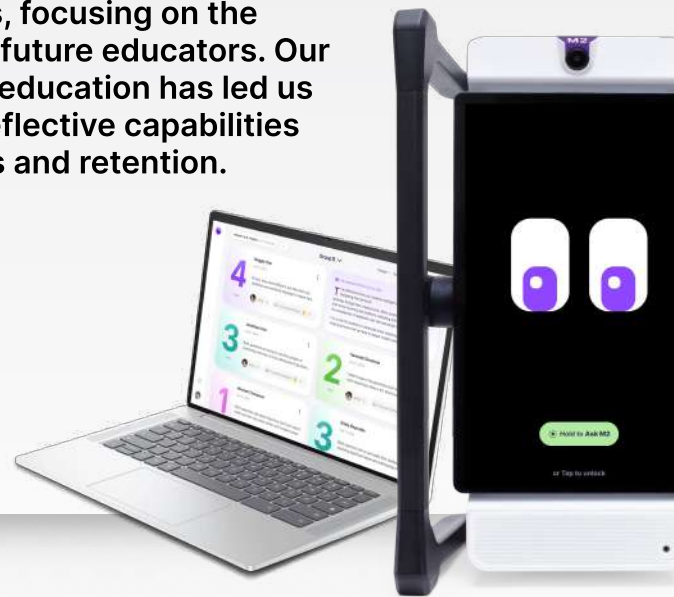
M2 captures authentic teaching moments during field experiences and offers daily feedback to student teachers to help them develop their skills while MirrorTalk guides teachers through structured verbal reflection processes, helping them construct meaning from their experiences. This guided metacognitive process helps teacher candidates develop the systematic analysis and problem-solving skills that research shows are crucial for career longevity.

What sets these solutions apart is their ability to make comprehensive metacognitive development both scalable and practical for teacher preparation programs. By seamlessly integrating into existing workflows, our tools enable programs to provide consistent, high-quality support for developing critical reflection skills without adding to faculty workload.

The result is a systematic approach to building the metacognitive capabilities that research shows are essential for creating resilient, effective educators who remain in the profession and positively impact student learning.

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# Conclusion

As teacher retention continues to challenge the education system, developing metacognitive skills during teacher education is not optional—it is essential. By partnering with Swivl, teacher preparation programs can implement scalable, research-based solutions that systematically develop these crucial skills in their candidates. Our proven tools and approaches seamlessly integrate into existing workflows, enabling programs to focus on what matters most: developing resilient, effective educators who will remain in the profession and positively impact student learning for years to come.

Together, we can transform teacher preparation and address the retention challenge by building the metacognitive foundation that tomorrow's teachers need.

> **M2 and MirrorTalk allows us to get into our teacher candidates' heads in a way that is more comfortable for them and helps prepare them for the professional development experience they will receive in a school. If they continue to use these tools in their careers going forward, it will be a game changer.**

Dr. Kristen Taylor | Associate Professor
University of Missouri – St. Louis

For more information about how to partner with Swivl, scan the QR code to connect with us.

Sources

| National Center for Education Profile of Teachers 2011 | Teacher Education Quarterly, Fall 2006 |
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| http://www.ncei.com/Profile_Teachers_US_2011.pdf | https://files.eric.ed.gov/fulltext/EJ795226.pdf |

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