# Understanding Self-Efficacy of Novice Teachers During Induction

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## Abstract

Even with the best preparation, it is undeniable that novice teachers must gain significant knowledge and skills on the job. Induction programs are shown to be beneficial in mitigating the transition between preparation and practice for novice teachers and help to further prepare teachers, during their first years in the classroom (Ingersoll & Strong, 2011). Due to the overwhelming turnover rate among novice teachers, providing adequate preparation appears as an unattainable, yet necessary task. However, little is known about where these novice teachers begin the induction phase of their careers in terms of their expectations and beliefs about their ability to teach. In order to address this question, the self-efficacy beliefs of ten graduates of the secondary Master of Arts in Teaching (n=5) and undergraduate early childhood education (n=5) programs at a large, research-intensive university participating in a pilot induction program were measured. Findings suggest participants' self-efficacy beliefs regarding their teaching abilities were high, yet their reported outcomes expectancies were not as high. Implications for research and practice include communication between teacher educators and novice teachers of the importance of models and mentoring within the pre-service and induction years of teaching, advocacy for teacher mentorship, and participation in a reflective process.

*Keywords:* teacher induction, novice teachers, self-efficacy, social learning theory

## Understanding Self-Efficacy of Novice Teachers During Induction

Even with the best preparation, novice teachers face the challenge of learning significant new knowledge and skills on the job, and nearly 50% of novice teachers leave the profession during their first five years of teaching (Bartell, 2005; Gourneau, 2014). Teacher education programs can extend mentorship into the first or second years of the teaching career (Carter, 2012), and research emphasizes a strong link between participation in an induction program and the decreased likelihood of a novice teacher moving schools or leaving the profession after the first year (Ingersoll, 2012).

Research shows there may be a variety of factors contributing to teacher induction, specifically within the school context (Hammerness & Matsko, 2013; Johnson, Kraft, & Papay, 2012). Moreover, it has also been shown that novice teachers are not as effective as veteran teachers (Hammerness & Matsko, 2013). To address this issue, teacher induction programs that engage novice teachers during their initial years in the profession reduce turnover rates and increase positive student outcomes and may positively influence the ways in which novice teachers work in their classrooms (e.g., classroom management, instructional planning, effective questioning, and establishing a positive learning environment), resulting in gains in student achievement (Ingersoll, 2012). However, novice teachers bring with them different expectations for success and achievement, particularly in terms of their own self-efficacy. The present study sought to understand more about first-year teachers' self-efficacy beliefs at the beginning of an induction program.

## Induction

For novice teachers, induction serves as an orientation into the school environment and provides a context for learning the norms and practices held by a school and district. Thus, induction is both a process of

socialization for the novice teacher and a means to refine and tailor their teaching practices to meet the needs of their students and the school (Bartell, 2005; Feiman-Nemser, 2003, 2010). With many educators leaving by their fifth year of teaching (Gourneau, 2014; Ingersoll, 2012), researchers, policy makers, and schools find that formalized induction programs may help retain these teachers. Many states and districts have adopted some form of induction program model; however, how induction programs are implemented varies greatly between schools, even within the same district, due to ill-defined guidelines (Bartlett & Johnson, 2010). Due to this, research on the effectiveness of induction often varies (Ronfeldt & McQueen, 2017). What remains as a common narrative is that even the basic interpretations of formalized induction can benefit novice teachers.

As noted by Feiman-Nemser (2001), novice "teachers have two jobs – they have to teach and they have to learn to teach" (p. 1026). The current narrative of induction indicates that the first year in the classroom is the most critical and, objectively, most stressful for a novice teacher during which much of their teaching strategies are constructed. During this period, teachers are having to adapt classroom management skills and teaching styles as well as become socialized into the norms of their school, factors that many are under-prepared for during their preparation experiences (Feiman-Nemser, 2001). Unfortunately, many schools maintain a culture of isolation and a "sink or swim" mentality for novice teachers who are already overwhelmed with new pressures and accountability associated with the profession. Induction, then, serves to combat the themes commonly experienced by novice teachers, which include the struggle to survive, a loss of idealism, and the reality shock of teaching (Curry, Webb, & Latham, 2016; Feiman-Nemser, 2003).

Mentorship between an experienced teacher and a novice teacher has demonstrated increased efficacy in teaching mastery and socialization into the profession (Feiman-Nemser, 2003; Yost, 2002); yet, if not enacted with purpose, the experience can be inadequate. One of the most important and influential aspects of induction is the inclusion of a mentor (Ingersoll, 2012; Strong, 2009; Villani, 2009). Successful mentors are usually paired purposefully with novice teachers and are meant to guide, observe, collaborate, and meet on a regular basis (Villani, 2009). Strong (2009) as well as Smith and Ingersoll (2004) note the importance and value of mentorship during the induction period. Having this structured support is able to both build a teacher's teaching self-efficacy and aid in overall teacher retention. However, given that the time and experience required for mentoring is taxing for both the novice teacher as well as the mentor, especially when schools are unable to provide support for the mentor, relying solely on mentorship is not always adequate.

Smith and Ingersoll's (2004) comprehensive study on teacher induction structured four induction packages and compared the rates of retention for first-year teachers engaged at each level of induction. The basic induction package involved both a mentor in a similar teaching field and supportive communication between the teacher and administrator; additionally, this package demonstrated only a slight difference in retention when compared to those teachers who received no induction. However, the largest influence for novice teachers was the inclusion of these basic induction supports in conjunction with collaboration between peers, teacher networks, and access to resources. This influential induction package negates the isolation faced in many schools; thus, teachers are able to share pedagogical practices, basics of classroom management and behavior techniques, and become a place for emotional support.

The inclusion of novice teachers into the school culture as a participant can increase a teacher's self-efficacy beliefs which may, in turn, aid in their retention (Hoy & Spero, 2005). Within the study of Hoy and Spero (2005), teachers' overall self-efficacy decreased during their first year of teaching. A later study by Devos, Dupriez, and Paquay (2011) suggests that this decrease in self-efficacy is not related to the socioeconomic statuses of schools, normally a strong indicator of teacher retention (Ingersoll & May, 2012), but linked more so to the school's collaborative community. Due to this, precedence needs to be given to see the process of induction as a social learning experience into the culture of the school and to better understand the impacts towards teacher self-efficacy.

# Social Learning Theory

Bandura's (1977) social learning theory provides a theoretical framework for investigating teacher induction and self-efficacy. Bandura asserts that human behavior is acquired through observation, imitation, and modeling. Individuals develop cognitive functioning as they attend to the social cues of others that are used for self-regulation, coping, problem solving, and other life skills. Observing these behavior patterns in turn, influences the observer's cognitive functioning and life skills. However, according to social learning theory, two other components to social learning—reinforcement and consequences—are critical in cognitive processing because they either reaffirm the value of a response to a situation or indicate the consequences of a person's response to a situation. Indeed, these occurrences, which we might informally call "feedback," are critical for self-efficacy, or making "judgments of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122).

Consistent with a social learning theory approach, individuals learn to teach by observing experienced teachers and modeling their classroom practices. Teacher education programs recognize this and embed such experiences into preparation programs for pre-service teachers. However, novice teachers with full-time teaching responsibilities can continue to benefit from these kinds of experiences that are built into their school context. Finally, human behavior has purpose, often guided by goals (Bandura, 1993). Individuals with a strong perceived self-efficacy tend to set higher goals for themselves and are more likely to be dedicated to reaching those goals (p. 118). If this idea is applied to novice teachers, those with high self-efficacy would be more likely to believe that they can be excellent teachers, set high goals for themselves in the classroom, and be committed to their work. Induction efforts that support high efficacy might be considered desirable as a means to increasing commitment to quality, the classroom, and the profession.

# Research Methods

The current study, outlined below, contributes to a line of inquiry focused on teacher support and retention by examining novice teachers' self-efficacy beliefs at the onset of their teaching careers. Such self-efficacy beliefs have implications for teacher education and retention, as will be discussed. Our conceptualization of induction as a process of socialization and use of social learning theory as a framework for understanding the experiences of novice teachers shaped our research context and questions. Specifically, this study addressed the following research question: What are teachers' self-efficacy beliefs as they transition from their teacher education program into their first year of teaching? To answer this, we explored a snapshot of participants' self-efficacy beliefs at this shift from "preservice preparation to practice, from student of teaching to teacher of students" (Feiman-Nemser, 2001, p. 1027), after approximately three months of teaching.

## Participants and Context

Ten graduates of the secondary Master of Arts in Teaching (n=5) and undergraduate early childhood education (n=5) programs at a large, research-intensive university participated in THRIVE (Together Helping Retain and Induct Vibrant Educators), a pilot induction program. The program was delivered via a private Facebook group where graduates could come for emotional and instructional support. Discussed below, THRIVE served as a context for aiming to support our graduates during induction. Of the 10 participants (seven females, three males), eight taught in public schools, one taught in a private school, and one taught in a parochial school; 70% of participants taught in the state where the university is located. In addition to THRIVE, participants had access to additional induction supports through their school or district. We drew on Smith and Ingersoll's (2004) work on components of comprehensive induction programs to determine the induction supports, activities, or practices that were available to and accessed by our participants. Specifically, over 60% of participants reported they had access to and took advantage of the following induction supports: mentor, supportive communication with administration, and beginning teacher seminars. More than 60% of participants also reported having access to common planning or regular collaboration time with colleagues; yet, only 50% of

participants reported taking advantage of this specific induction support. One-quarter of participants noted access to an external network of teachers though none reported accessing it. One-quarter of participants also reported a reduced number of preparations, of which they took advantage. No participants in this study received the assistance of a teacher's aide.

A private Facebook group was created for this project and participants were invited to the group after completing informed consent and the initial survey. A Facebook group was chosen as the delivery platform after an informal survey of students prior to graduation asking them how they would like to engage with other teachers. The Facebook page included regular posts about teaching, ways to address common issues in management, and stress and coping. Although participants were encouraged to engage with the posts and each other in this virtual platform, nearly all posts in the Facebook group were made by the second and fourth authors, who served as the administrators for the THRIVE Facebook page. Participants most commonly interacted with posts to the group page by viewing the post (as determined by Facebook metrics); occasionally participants "liked" a post but seldom commented on posts. The content of initial posts to the group page were determined by the page administrators based on Moir's (1999) stages of a teacher's first year and our experiences working with novice teachers. A poll was administered via Facebook in February to identify participants' most pressing concerns; then, page administrators' posts were targets to address these issues. Only once did a participant initiate a post to the group. She sought tips to balance grading, planning, and her personal life effectively after being given new courses for the spring semester. The page administrators were the only ones to respond to the post. See Appendix A for an overview of the Facebook group activity.

## Data Collection and Analysis

Prior to the start of THRIVE, participants completed an initial online survey of their efficacy beliefs, along with measures of stress and job satisfaction. Specifically, we used the Science Teaching Efficacy Belief Instrument (STEBI-A for in-service teachers; Riggs & Enochs, 1990) to measure participants' efficacy beliefs.

**STEBI.** The STEBI-A was developed by Riggs and Enochs (1990) as a means of assessing the self-efficacy of science teaching practices of elementary in-service teachers through the framework of Bandura's (1977) social learning theory. Within the STEBI instrument, self-efficacy is denoted as a measure of two subscales: personal teaching efficacy and teaching outcome expectancies. The personal teaching efficacy subscale focuses on the personal beliefs that the teachers themselves possess the knowledge and confidence to enact teaching practices, whereas the teaching outcome expectancies subscale attends to the teacher's belief that teaching itself has an influence on students' achievement. Self-efficacy, by this understanding, becomes contextualized in both the personal and preparation experiences of the teacher as well as the subject matter (Riggs & Enochs, 1990; Roberts, Hensen, Tharp, & Moreno, 2001). Specifically, the personal teaching efficacy subscale consisted of 13 Likert-scale items, which participants responded to by indicating their agreement or disagreement with each item along the following scale: strongly agree, agree, uncertain, disagree, strongly disagree (scale of 5 to 1, respectively). The teaching outcomes expectancies scale consisted of 12 Likert-scale items and used the same agree/disagree scale as the personal teaching efficacy subscale. Although the STEBI-A instrument was developed initially for assessing the self-efficacy of in-service elementary teachers, precedent for adapting the STEBI for use with teachers in various grade levels and content areas has been set by other researchers (e.g., Buck, 2003; Holden, Groulx, Bloom, & Weinburgh, 2011; Kendall & Wendell, 2012; Khourey-Bowers & Simonis, 2004; Roberts, Henson, Tharp, & Moreno, 2001; Rubeck & Enochs, 1991; Swackhamer, Koellner, Basile, & Kimbrough, 2009).

**Administering and analyzing STEBI.** The STEBI-A (Riggs & Enochs, 1990) was administered, as written, to science teachers and revised slightly to reflect different contexts and content areas for non-science teachers. During data analysis, negatively worded items were reverse coded so that a high score reflected high efficacy beliefs; survey items were split into subscales (personal teaching efficacy beliefs and teaching outcome expectancies, α 0.92 and 0.77, respectively, for Riggs & Enochs' instrument); and participant totals and subscale averages were calculated. With 13 questions on a 5-point Likert scale, the possible total score on the personal teaching efficacy subscale is 65; with 12 questions on a 5-point Likert scale, the possible total score on

the teaching outcomes expectancies subscale is 60. Although other measures were included in the initial survey, for this current study, we elected to use only the results from the STEBI instrument, choosing to focus on explicitly the self-efficacy beliefs of our participants.

**Findings**

A survey of participants' efficacy beliefs during their first semester of teaching showed that participants had high beliefs in their own abilities to perform as teachers (mean score of 53.6 out of 65); however, their outcome expectancies were not as high (mean score of 35.4 out of 60). Figure 1 shows scores on the personal teaching efficacy and teaching outcome expectancies subscales for each participant; Figure 2 shows outcome expectancies versus efficacy beliefs for each participant, where each data point represents one participant.
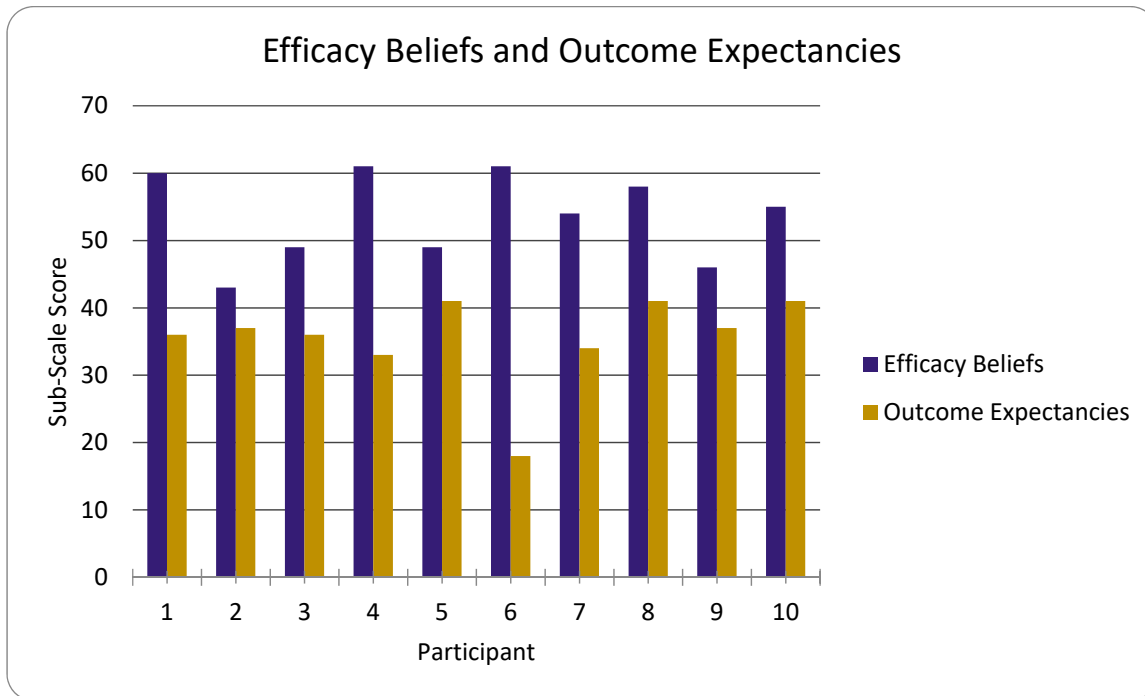


*Figure 1. Efficacy beliefs and outcome expectancy scores for each participant*

From these results, we found that each participant held relatively high self-efficacy beliefs in their ability to teach; however, the teachers' reported outcome expectancies were lower. Participant 6, in particular, was noted due to demonstrating the largest discrepancy between reported personal self-efficacy belief and outcome expectancies.
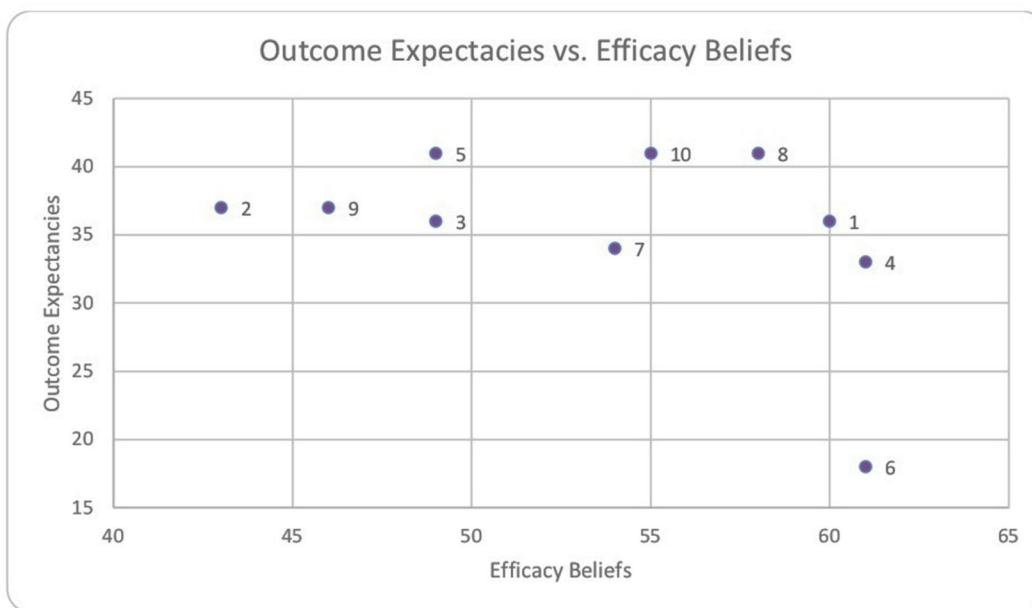
*Figure 2. Outcome expectancies versus efficacy beliefs per participant*

## Conclusion

Overall, participants in this study held high efficacy beliefs but lower outcome expectancies; albeit a couple of participants held both high efficacy beliefs and high outcome expectancies. In light of Bandura's (1977) social learning theory, from which the constructs included in the STEBI were drawn (Riggs & Enochs, 1990), participants with high self-efficacy beliefs and high outcome expectancies should act in confident and decisive ways in their teaching. Those with high self-efficacy beliefs but low outcome expectancies may intensify their efforts in the classroom in the short term but will eventually become frustrated, making this group of teachers susceptible to pre-retirement attrition. Our sample did not show any participants with low self-efficacy beliefs and low outcome expectancies, which is promising as such teachers tend not to persist if desired outcomes are not obtained immediately.

Commonly, we expect that during the transition from teacher preparation to professional teaching, the beliefs of novice teachers fluctuate during these beginning years and are found to be impacted by their induction experiences (Luft & Roehrig, 2007). The difference between the novice teachers' efficacy beliefs and their outcome expectancies further echo the themes associated with first-year teachers (Hoy & Spero, 2005). During this period, first-year teachers are beginning to realize the differences in their idealism and the realities of teaching. In fact, at the time of the initial survey, participants were starting their third month of teaching, a time that correlates with the survival and disillusionment phases of the first year of teaching (Moir, 1999).

Our study found that teachers initially had high levels of self-efficacy in the first semester, yet their outcome expectancies were not as high during this time. This inconsistency between levels of self-efficacy and beliefs about outcomes is intriguing, although not entirely unexpected. During the survival phase of the first year of teaching, novices may find themselves working more hours, yet feeling ineffective (Moir, 1999). Though they may be efficacious, their outcome expectancies may drop. Following the survival phase, it is not uncommon for efficacy and esteem to drop in the disillusionment phase, during which time first-year teachers usually receive their first instructional feedback from administrators and deal with the increasing stress of criticism from administrators, parents, and others (Moir, 1999). That said, it is noteworthy that there were no instances in this sample of teachers with low self-efficacy and low outcome expectancies.

Possible reasons for the findings from the study include the following. First, demographic information should be considered, such as school type (public, private, charter), location, and socioeconomic status because these factors may influence teacher resources and the types of benefits they receive within their schools and

learning communities. These resources can impact their self-efficacy and decision making. Although the analysis from Devos, Dupriez, and Paquay (2012) suggests that these demographics are not directly correlated to self-efficacy, noting differences in school environments may allude to opportunities for collaboration and socialization. Second, classroom factors such as class size, content area, and experience with subject matter may also influence teacher self-efficacy and outcome expectancies. For example, a novice teacher may teach a subject they have no experience teaching, did not study to teach, or did not plan or expect to teach, and doing so may influence their self-perceptions and desire to continue teaching. Consistent with Bandura's (1977) social learning theory, through observation of more experienced teachers, novice teachers can learn strategies to implement in their teaching practices and, in turn, increase their abilities to implement these strategies. When novice teachers experience success with newly learned strategies, this may positively impact their self-efficacy and outcome expectancies. Lastly, there should also be a measure of student responses. Teachers may use their students' reactions to the strategies implemented by the teacher to determine whether or not they are successful, which may indicate how well they are performing their jobs in terms of decision-making or classroom management.

## Implications and Future Research

This work has implications for teacher education programs and schools that wish to incorporate induction programs. First, teacher educators that are preparing novice teachers should discuss with their students the importance of models and mentoring from pre-service through the first years of teaching. Teaching pre-service teachers about how to best utilize a mentor, observe and make use of a model teacher, and engage in reflection are critical parts of an education program for continued learning into the first years of teaching. Making this explicit to students can help them understand the importance of induction and their role in the process. Novice teachers that understand the value of a mentor may be in a better position to advocate for themselves in the first year.

Those that are involved in hiring first-year teachers or creating induction programs in schools may also consider the potential impact of such programs. First-year teachers and novice teachers, like those in this study, find themselves in the midst of a transition, maintaining their beliefs in "good" instructional practices, but also disenchanted by the immediate results they observe with their students. In social learning theory, individuals learn through direct experience and engagement in their profession. For Bandura (1977, 1997), mastery and efficacy beliefs are linked to the achievement of student outcomes; thus, when teachers face a deflection in how they perceive their efficacy versus this outcome, we can expect that the overall self-efficacy of these teachers to first be lessened and second, we may expect that these teachers will either find ways to re-evaluate their own praxis or adjust the expectations of their students. Understanding the needs and differences of novice teachers' self-efficacy beliefs during their initial year helps focus the theme of induction and the specific needs novice teachers report. Specifically, it is important to note how novice teachers continue to grow, learn, and require ongoing support. Induction programs that include mentors, opportunities for observation, and modeling within the school setting can be a source of this kind of support.

As participants' first year of teaching comes to a close, we plan to administer a follow-up survey, which will include STEBI and STEBI-like items, among other scales. We will be able to look at changes in participants' self-efficacy beliefs and teaching outcomes expectancies across their first year of teaching. Knowing novice teachers' self-efficacy beliefs and teaching outcome expectancies may help teacher educators, administrators, and others better support novice teachers' development of self-efficacious teaching beliefs and practices, and thereby improve teacher retention.

Future research might expand this work to investigate more teachers and follow them not only the first year of teaching, but also following across the next two years of being a novice teacher to further understand their development across this transition. It would also be helpful to understand more from these new teachers in their own words about how they navigate these experiences. Mixed methods approaches that couple the ability of the STEBI to report the self-efficacy of teachers with the strength of qualitative approaches to explore

individuals experience could add to the extant literature. It would be interesting to explore more completely the role of external supports, including social networking communities, for induction during the first few years of teaching. Finally, it would be interesting to explore the changes that occur in novice teachers' self-efficacy across the first year and beyond, as impacted by participation in induction programming.

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## Appendix A

## THRIVE Facebook Group Activity

| Month | Post Topic | Posted By | Activity |
|-------|-----------|-----------|----------|
| October | Welcome | Page administrator | 7 views<br>1 "like"<br>1 comment |
| | Restorative justice | Page administrator | 6 views<br>1 comment |
| | Building resilience, preventing burnout | Page administrator | 6 views<br>1 comment |
| November | Self-care | Page administrator | 9 views |
| | Self-care inventory | Page administrator | 9 views<br>1 comment |
| | Holiday classroom management strategies | Page administrator | 9 views<br>1 "like"<br>1 comment |
| | Quietness during hectic season | Page administrator | 10 views<br>1 "like" |
| | Advice to a new teacher | Page administrator | 10 views<br>1 "like"<br>1 comment |
| December | Diverse holiday traditions | Page administrator | 10 views<br>1 "like" |
| January | Goal-setting and self-improvement | Page administrator | 10 views<br>1 "like" |
| | What sustains you? | Page administrator | 6 views<br>1 "like" |

| | Work-life balance | Participant | 6 views<br>3 comments<br>(from page<br>admins.) |
|---|---|---|---|
| February | Poll: What gives you grief | Page administrator | 6 views<br>5 responses |
| | Classroom management (based on poll responses) | Page administrator | 5 views |
| | Resources for responding to trauma/tragedy | Page administrator | 6 views |
| March | Moving students from "can't" to "can" | Page administrator | 6 views |
| | Routines | Page administrator | 7 views<br>1 "like"<br>1 comment |
| April | Influence of a teacher | Page administrator | 7 views<br>1 "like"<br>1 comment |
| | Grading tips for new teachers | Page administrator | 6 views<br>1 "like"<br>1 comment |
| May | Teacher appreciation | Page administrator | 8 views<br>1 "like"<br>1 "love"<br>1 comment |
| | Making grading easier | Page administrator | 9 views |