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Arizona Union Educator Efficacy

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Abstract

Personal teacher efficacy (PTE) has the potential to decrease teacher turnover and has been proven to influence teacher behaviors that then impact student success, and it can be built through specific types of experiences and professional growth. However, without knowing where educators currently stand across various areas of PTE, it's difficult to know where to start. After surveying 703 certified teachers in Arizona's largest teachers' union and engaging in a qualitative approach to exploring 18 areas of personal teacher efficacy using elements of the Tschannen-Moran (2001) assessment tool but adapted to this research setting, it's clear that there *are* areas where there is more self-efficacy (e.g. creating a positive classroom environment and content knowledge) and areas where more can be cultivated (e.g. collaboration with colleagues). Through cross-tabbing, it's also clear that years of experience do relate to a teacher's sense of PTE in some areas to a statistically significant amount, especially for educators in their first 5 years and those with 21-30 years of experience, although the exact relationship is unclear.

Introduction and Literature Review

In Arizona, 14% of teachers (8,600) left the profession between the 2024-2025 and 2025-2026 school year. They cite burnout, low pay and benefits, and working conditions as the top reasons. Of the teachers remaining, most are in their first 10 years in the profession (Arizona Department of Education, 2026). At the same time, only 34% of Arizona 4th graders scored at or above proficient in mathematics and 26% in reading, and only 26% of 8th graders scored at or above proficient in mathematics and 25% in reading (National Assessment of Educational Progress, 2025). Organizations and policymakers are looking for ways to increase student achievement and growth and address teacher retention.

One solution could be to address personal teacher efficacy (PTE), grounded in self-efficacy theory (Bandura, 1986), describing a teacher's beliefs in their ability to impact student learning and achievement. PTE affects teacher motivation to participate in professional growth, ability to apply new skills, resilience, organization, and planning (Scribner, 1999; Tschannen-Moran & Hoy, 2001), and evidence suggests that teachers' self-efficacy (especially collective staff efficacy) may be a stronger predictor of student success than socioeconomic status (Bandura, 1993; Goddard, Hoy, & Woolfolk, 2000; Tschannen-Moran, 2001). However, the link is reported by some as a mediating factor rather than causal because personal teacher efficacy affects student success through teacher behaviors – not directly (Bruce et al., 2010). There is also evidence that higher PTE could be a factor in teacher retention (Perrachione et al., 2008; Bickmore & Bickmore, 2010; Smith & Ingersoll, 2004; Burić & Kim, 2020), although it's unclear how strong the association and relationship is and more research is still needed.

PTE can be built through the intentional design of professional growth and professional learning communities if it individualizes the needs of each educator and provides a variety of types of experiences that build self-efficacy, like mastery experiences, vicarious experience, social persuasion, and affective states (Scribner, 1999). Donohoo (2017) explains contextual factors that influence self-efficacy and how to use that context to build self-efficacy with different types of professional learning, defining what makes them successful in moving the needle on student growth and achievement.

However, PTE is difficult to measure because it means looking at teachers' beliefs about their locus of control and how that translates to their behaviors with students; many frameworks have been created to assess teachers' self-efficacy (Tschannen-Moran & Hoy, 2001). Bandura (1997) used subscales in his instrument, like decision-making, instructional efficacy, and creating a positive school climate because a teacher's sense of efficacy isn't uniform across job tasks, so measures need to assess their belief in competence across a wide range of tasks (Tschannen-Moran et al., 1998) – looking at both personal competence and how it responds to different constraints in particular teaching contexts. Tschannen-Moran & Hoy (2001) made a new instrument using a Likert scale with an expanded list of capabilities and grouped them into 3 dimensions of self-efficacy (student engagement, instructional strategies, and classroom management) with 24 items in length (the Ohio State Teacher Efficacy Scale (OSTES)), and research showed it had "positive correlations with other measures of personal teaching efficacy", which helps give it validity. It also addressed limitations of previous instruments that lacked assessments of some teacher tasks, such as flexibility in using instructional strategies for students at different proficiency levels and nurturing creativity. The assessment was found to be reasonably reliable and valid, but it was not found to be as consistent with pre-service teachers. One challenge of any measure of self-efficacy is "inflated teacher efficacy based on invalid self-appraisal" (Bruce et al., 2010).

Research Question(s)

To my knowledge, there is no existing research about Arizona educators and their self-efficacy at work, nor is there any research about union educators and self-efficacy. By using the theoretical frameworks that have demonstrated reasonable validity and reliability but modified to fit this research setting, I can explore the descriptive question: In which areas of their work do Arizona union educators exhibit the highest personal teacher efficacy (PTE)? By understanding where the baseline PTE is for Arizona educators, local policymakers and advocacy organizations (like the union) can make evidence-based decisions about areas of teacher professional growth where they could better support teachers.

Because teacher turnover rates are changing the makeup of the workforce, specifically in terms of years of experience in the classroom, I then asked: To what extent is there a relationship between areas of PTE and years of experience for these educators? Since there is little existing research about correlations between years of experience and areas of efficacy other than that of pre-service teachers, this is another newer area of exploration, and as many Arizona districts currently adopt professional growth practices and programs that are not differentiated based on experience and have eliminated coaching positions statewide due to funding cuts, understanding how the professional growth needs of educators at different years of experience are similar or different could also help policymakers and advocacy groups better advocate for professional growth that meets the needs of all educators.

Given the difference in teacher behaviors and student outcomes for those with high vs. low PTE (Scribner, 1999) and the low student proficiency percentages in both reading and math, I wonder if there will be lower PTE in areas of instructional skills and student engagement. There may also be a correlation between more experienced teachers and greater levels of PTE in those areas than with less experienced teachers, since they would have theoretically been exposed to more self-efficacy-building experiences than newer teachers, such as mastery experiences, vicarious experience, social persuasion, and affective states (Bandura, 1997). Since many experienced educators tend to have fewer classroom management issues, I anticipate there will be higher PTE in a classroom culture and student engagement for those with more than 10 years of experience. However, because burnout is a commonly reported feeling and the everyday work tasks in education have changed over the past 20 years, I think there will also be areas in the subgroups where less experienced teachers may have higher PTE and teachers with 30+ years of experience may have lower PTE. Since the teacher's union plays a direct role in local decision-making, I'm also curious to see if there will be a high rate of PTE in professional leadership.

Setting and Intervention

Because there is no way to access contact information for all Arizona educators to survey them and staffing is limited to conduct interviews of 60,546 teachers, I am surveying the members of the Arizona Education Association (AEA), the state's largest teacher union, using their existing listserv. There are 21,965 educators in their membership (16,571 certified), which is 27% of the general teaching population. By looking at a statewide organization of teachers rather than studying a specific district, we can get a better idea of self-efficacy across different administrations, local contexts, and resource levels.

Additionally, the organization's core values are: 1) quality public education for all, 2) fairness, equity, and respect for all, 3) teaching as an esteemed profession, 4) education support professionals as valued partners, and 5) learning as a community commitment. This commitment to supporting teachers *and* students makes the context for research in this area even more compelling for addressing personal teacher efficacy and the issues in Arizona's educational sphere. Valuing fairness, equity, and respect also provides an opportunity to center equity when developing the measurement by considering what teacher behaviors look like from that lens. The organization's demographic breakdown compared to the Arizona teacher workforce and the sample can be found in Table 1.

Data Sources and Sample

The data source was a self-administered web-based survey (Appendix A) sent to all members of the AEA. There were a total of 7 demographic questions, 1 ranking question about areas of impact, a "select all that apply" question about how participants feel in the workplace, a belief statements question matrix using a 5-point Likert scale (strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, and strongly disagree) with a "not applicable" option, 4 multiple choice questions about professional growth, and 2 open-ended questions labeled as optional about closing gaps in opportunity, achievement, and access for students. All questions were optional and didn't require a response to submit. For this research, I focused on the belief statement question matrix (#13).

Building off prior research on measurement tools, the question has 18 statements about daily teacher tasks. These statements are similar in subject to the Tschannen-Moran & Hoy (2001) framework and grouped into similar categories for analysis, but to help them better fit this research setting, where the organization has chosen to center equity, the wording was adapted to mirror the Mid-Atlantic Equity Consortium Framework and Tool from the "Teacher Behavior section". For example, instead of calling the category "Classroom Management", the category is "Classroom Culture."

PTE frameworks sometimes also included questions about teacher leadership and advocacy, like Bandura (1997), though missing from Tschannen-Moran's framework. Therefore, I added a category called "Professional Leadership & Collaboration," and the statements included are ones generally accepted as behaviors of teachers with high PTE: data-driven decision-making, intrinsic motivation for professional development, engaging in policy and decision-making, and colleague collaboration (Scribner 2001). These statements also align with the work of the union.

The independent variable is the areas of teacher work we're examining (classroom culture, student engagement, instructional strategies, and professional leadership/collaboration) and their subareas, and the dependent variable is the level of personal teacher efficacy for each of these areas, measured on the Likert scale. The moderating variable I'm disaggregating data by is teachers' years of experience to see whether there is a correlation between years of experience and the strength of that teacher's PTE in any of the areas of their work.

The AEA membership received the survey link via email 3 times over 3 weeks and once via text message from the union (Appendix B); both the email and survey introduction (see Appendix A) include a statement about the survey purpose, how the data will be used, and how the data will be shared to ensure transparency with those who are taking it. The data was collected anonymously to encourage honesty and mitigate inflated self-efficacy scores.

The number of survey participants was 958 union educators, and 703 were certified staff. Because the demographic data is incomplete for the general membership, Table 1 shows the available descriptive characteristics of the certified survey participants to the total AEA certified membership and the teacher workforce according to the Arizona Department of Education Educator Dashboard (2026). The side-by-side proportions reveal that the demographics of those who completed the survey generally match those of the AZ teacher workforce as a whole and AEA certified membership.

Table 1. Descriptive characteristics of the sample comparatively

	Certified Survey Participants (Sample)	**AEA Certified Membership (Target Population)**	**AZ Teaching Workforce (General Population)**
N	703	16,571	60,546
Proportions within column			
White	0.688	0.676	0.684
Black	0.055	0.040	0.042
American Indian/Indigenous	0.024	0.018	0.021
Hispanic	0.148	0.181	0.186
AAPI	0.031	0.034	0.057
Multi-racial/Other/Unknown	0.054	0.048	0.008
0-5 Years of Experience	0.149	---	0.304
6-10 Years of Experience	0.153	---	0.214
11-20 Years of Experience	0.323	---	0.269
21-30 Years of Experience	0.278	---	0.165
Over 30 Years of Experience	0.096	---	0.048
PreK-Kindergarten	0.063	---	0.071
Elementary School	0.420	---	0.315
Middle School	0.177	---	0.105
High School	0.300	---	0.291
Multiple Grades	0.040	---	0.243

Analytic Method

A qualitative methodology was used due to the large amount of data collected using a combination of Qualtrics tools and raw data analysis in Excel. I set the confidence interval for all the analyses in Qualtrics at 95%. Then I looked at the results of the belief statements in Qualtrics for Question 13 on the survey, filtering for only certified educator responses and looking at percentage trends for most educators (50% benchmark) across each area of PTE. Then, using an extreme analysis approach, I bucketed “strongly” and “somewhat agree” into “Agree”, “Neither Agree Nor Disagree” into “Neutral” , and “somewhat” and “strongly disagree” into “Disagree”. I excluded responses of “Not Applicable”. This allowed me to understand areas where there was more general agreement or disagreement.

I then looked at the intensity of their agreement by focusing on only the “strongly" responses in a 100% stacked bar graph, and I sorted them by the highest percentage of “strongly agree” (Figure 1). This allowed me to identify areas in which most respondents felt most positive or negative.

Finally, I bucketed the areas of efficacy into categories like Tschannen-Moran & Hoy (2001) using Excel. This helped make sense of trends across 18 different PTE areas, organizing them into a stacked

bar graph mapping the categories of PTE across the Likert scale (Figure 2). Appendix C has the data from Figure 2 and how the belief statements were categorized.

I then used the "relate" tool in Qualtrics to look for correlations in levels of PTE in the various areas and years of experience with a Chi-squared test for statistical significance, since the levels of PTE were nominal and the ranges for years of experience were ordinal. Statistically significant relationships between years of experience were found for 6 of the 18 PTE areas, and Appendix D shows the crosstab results with statistical significance quantified for each area. This allowed me to answer the second research question about whether years of experience relate to teachers' self-efficacy to any extent.

Findings

Research Question 1: In which areas of their work do Arizona union educators exhibit the highest personal teacher efficacy (PTE)? The areas where more than 90% of respondents felt agreement ("strongly" and "somewhat") and some self-efficacy were: creating a positive classroom environment where students can collaborate and work together (95.6%), having content knowledge needed to help all students succeed (94.3%), fostering student creativity and critical thinking (91.8%), and having instructional skills to help all students succeed (90.6%). The areas with the largest percentages of disagreement ("strongly" and "somewhat") were: having adequate opportunities, trust, and training to effectively collaborate with my colleagues to support all students (15.1%), affecting student academic achievement more than outside factors (14.8%), getting through to the most difficult students (12.0%), and having skills and knowledge to help all students regardless of English proficiency succeed (10.7%).

Figure 1. Areas of Personal Teaching Efficacy shows each of the 18 areas of PTE across the Likert scale and where survey participants felt the most agreement: creating a positive classroom environment (74.7%), intrinsic motivation to engage in continued professional growth (66.2%), and content knowledge (61.1%). They felt the most disagreement in: having adequate opportunities, trust, and training to effectively collaborate (6.1%), affecting student academic achievement more than outside factors (3.8%), and getting through to the most difficult students (3.0%). Even though most educators felt some level of self-efficacy (strongly or somewhat) around fostering student creativity and instructional skills, there was not as much *strong* agreement as in other areas because only 49.9% strongly agreed with the first and 47.7% with the second (Appendix D).

Figure 1. Areas of Personal Teaching Efficacy (n=703)

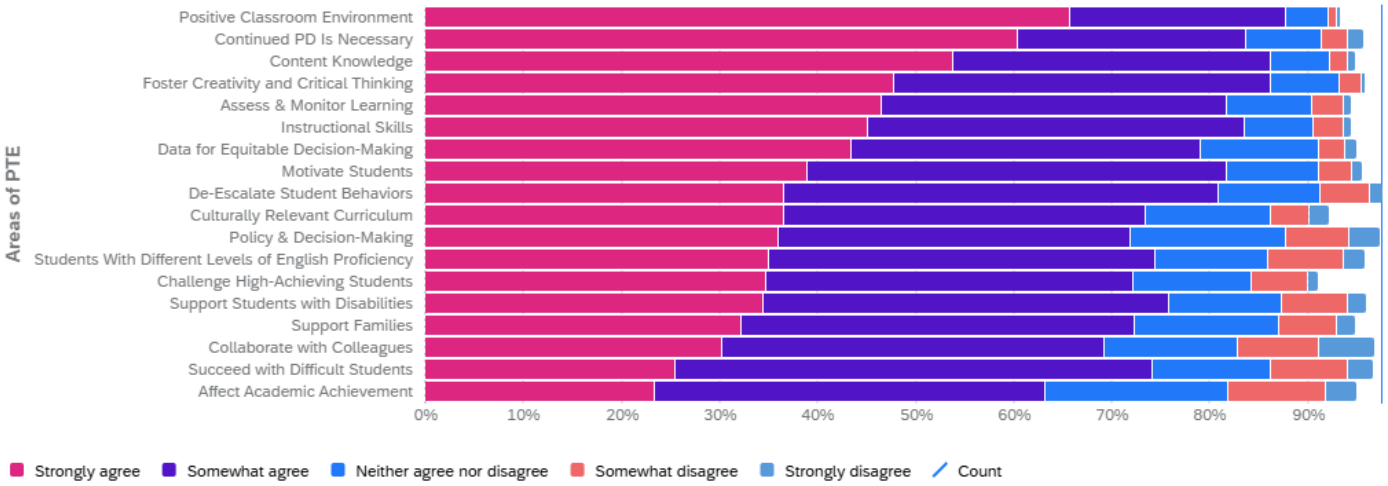
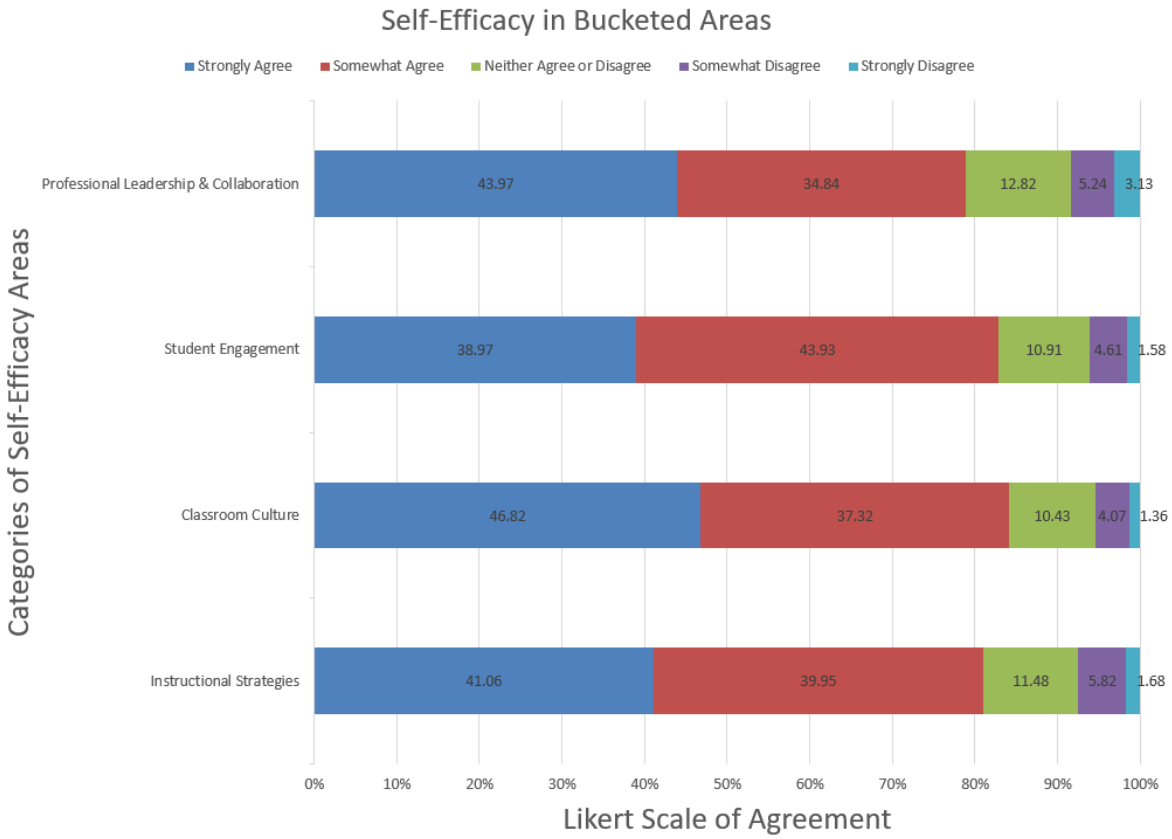


Figure 2. Self-Efficacy in Bucketed Areas shows the 4 categories of self-efficacy that the 18 items were grouped into and breaks down what percentage of survey participants fell into each level on the Likert scale. It shows the highest category of self-efficacy was classroom culture (both in only looking at strongly agree at 46.82% and looking at "strongly" and "somewhat" agree together at 84.14%), and student engagement had the 2nd highest general agreement at 82.9%.

Figure 2. Self-Efficacy in Bucketed Areas (n=703)



To what extent is there a relationship between areas of PTE and years of experience for these educators? By cross-tabbing against years of experience, it is evident that there is a statistically significant relationship between years of experience and some areas of PTE, but the data doesn't show that more years of experience equate to higher PTE scores across all areas. In fact, those with the most experience (30 years or more) didn't have a statistically higher PTE level in any area. There is insufficient data for a causal analysis to understand why because many external and internal factors influence someone's self-efficacy, but identifying these relationships allows us to understand the current reality for survey participants and identify potential areas where an organization might support further growth in PTE.

There were 5 areas where those with 21-30 years of experience seemed to have higher PTE than those with 0-5 years of experience. In instructional skills, accurately assessing and monitoring student progress, and content knowledge, there were statistically significantly higher rates of "strongly agree" for those 21-30 years of experience and lower rates for those 0-5 years. For appropriately challenging high-achieving students, there were statistically significantly higher rates of "strongly agree" for those 21-30 years of experience and lower ones for 0-5 years, with statistically significantly higher rates for 0-5 years in "somewhat disagree" and "neither agree nor disagree". In "helping all students, regardless of

English proficiency," there were higher rates of "strongly disagree" and lower rates of "strongly agree" for 0-5 years of experience and lower rates of "strongly disagree" for 21-30 years that were significant.

However, there was also one area where those with 0-5 years of experience had statistically significantly higher PTE. For the statement creating a positive classroom environment where students can collaborate and work together, there was statistical significance in a higher rate of "strongly agree" for those 0-5 years, a lower rate of "strongly agree" for those 21-30 years, and a higher rate of "neither agree nor disagree" for those with over 30 years of experience.

Discussion and Conclusion

For internal validity, selection bias is possible because not every member has a valid email address and/or phone number and subscribes to the listserv. Members who don't agree with the actions and beliefs of the union may unsubscribe, so the results could be skewed towards those with similar beliefs. A school-wide, district-wide, or statewide survey of teachers with a wider audience might provide more actionable results for policymakers. There may also be a social desirability bias because teachers are subjects of blame in the public narrative about failing public schools. To mitigate, I was transparent about the use of the data and that it is anonymous. Respondent fatigue is also a concern, so I eliminated extra questions and used Qualtrics' survey assessment tool to make it as easy to fill out as possible. But if I were to do it again, I would randomize the order of the belief statements to avoid that bias.

In terms of external validity, the survey is coming from the union and to union members, so any conclusions drawn may not be generalizable to the teaching workforce because it's unclear what role union membership plays in how a teacher defines or understands their self-efficacy. The sample size is small in proportion to the target population and, therefore, could be considered a volunteer sample. But the information gathered may still be helpful for organizational decision-making, and the fact that there are 958 responses means the results can't be totally ignored. Other researchers may seek to replicate the study outside of this context with a broader sample.

Regardless, these findings show that educators need individualized opportunities to strengthen PTE across various areas of work. The higher levels of PTE for teachers 21-30 years of experience also show the importance of teacher retention, but the fact that teachers 0-5 years of experience had statistically higher rates of "strongly agree" for creating a positive classroom environment shows that new educators have something to contribute to colleague collaboration as well. It would be interesting to do focus groups with teachers in these two experience levels to find out more about what experiences have contributed to their self-efficacy in these areas of their work.

It is intriguing that the category "instructional strategies" was only the 3rd highest category when many people would consider it the primary duty of teachers (Figure 2). Looking at the breakdown of statements in that category, there were lower amounts of "strongly agree" on the ability to influence academic achievement more than outside factors and supporting students regardless of English proficiency and high-achieving students. These areas of PTE could be bolstered if professional learning communities were better supported, simultaneously boosting PTE in colleague collaboration and creating a space where experienced and newer teachers could learn from one another. This colleague-to-colleague support would provide the types of efficacy-building experiences that move the needle on teacher retention *and* student achievement.

Conducting an internal audit of the types of efficacy-building experiences (Bandura, 1997) around areas from this survey that reflect lower levels of PTE could illuminate internal changes the AEA could make to professional growth offerings to increase self-efficacy and meet the needs of survey participants. Since only a small percentage of members participated, it's important to keep in mind that these results might not reflect the majority of the membership but do reflect many people's interests.

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AI Declaration (*new as of 2023*)
The only Artificial Intelligence (AI) resource used in writing this paper is the free version of the Grammarly tool to provide suggestions to fix grammatical errors. No generative AI was used to outline or write any sections of this paper.