The expectations placed on novice teachers – by others (e.g. administrators, parents, students, etc.) and by themselves – are difficult to realize while simultaneously acclimating to other basic job functions. The challenges encountered during the first year(s), when teachers are given responsibility and accountability for so much with time and resources that amount to so little, are part of the cause for high turnover rates in education, which, like a domino effect, cause other problems (Ingersoll & Smith, 2003). As our country grapples with defining success in education, which is increasingly centered on student achievement data, listening to the perspectives of beginning teachers – those we aim to support and retain – is important; indeed, understanding their views may be the best starting point for impacting how schools foster teacher retention and differentiate support.

The primary purpose of this article is to present the perspectives of two samples of beginning secondary mathematics teachers from a research study about defining success in the classroom. First, the authors begin by discussing some of the backdrop to recent trends in teacher evaluation and some ideas about novice teachers. Then, using results from both populations, the authors answer the extent to which research participants valued student test scores as an indicator of success as a first objective, and then present possible implications regarding teacher retention and suggestions for structuring support as a second objective.

Background
A national trend in education has been to use student test scores as an evaluation – or as part of an evaluation – for teacher performance, spurred on by nationally competitive grant programs such as Race to the Top. While earlier iterations of student achievement data were limited, the vast amounts of longitudinal student data on standardized tests now permits for more sophisticated analyses, including value-added measures in student test scores. And while these are not perfect (e.g. they do not account for student motivation, or unreliability of the test instrument), and the verdict is still out for their use in teacher evaluation, they do
represent a significant improvement. Currently, many states now have adopted systems that include value-added measures in student test scores as at least one component of the teacher evaluation process (Steele, Hamilton, & Stecher, 2010). And why not? There does need to be accountability for teachers helping students improve. One implication for their use is that student test scores are indicative of teachers’ success in the classroom; but do beginning teachers agree and what are the implications?

There is a vast amount of research that has been done on novice teachers and the transition into education. Some research, like Reynolds (1992), has attempted to address what can reasonably be expected of beginning teachers (in Koirali, Davis & Johnson, 2008). Others, such as the well known model Fuller and Brown (1975), articulate four stages of beginning teachers’ growth: 1) identification as pupil and not teacher; 2) concerns of survival in teaching; 3) concerns about own teaching performance; and 4) concerns with pupil learning and individual needs. These notions indicate that novice teachers have distinct needs, which subsequently, might entail alternative expectations and support. And in some ways, schools do this: beginning teachers are assigned mentors, new faculty orientations facilitate passing along important information, etc. Yet even these actions can become policy-oriented, making sure they are in place as opposed to making sure they meet beginning teachers’ needs. Such support must center on needs from the perspectives of beginning teachers; supporting (and differentiating support for) beginning teachers starts by listening to them. The voices of beginning teachers are often overlooked in the classroom, most researchers and practitioners preferring the wisdom of experienced educators; the ideas of beginning teachers, however, may be even more valuable for the profession in the long term.

Methodology
Perspectives from two samples of beginning secondary mathematics teachers (between one and two years of teaching experience) who participated in a research study about defining success in the classroom will be presented. While education cannot be bound solely to beginning teachers’ feelings of success and needs also to rely on indicators of effectiveness in the classroom, their opinions do matter and should be considered – particularly in a profession that struggles to keep them around. This mixed methodology study included collaboration between two researchers to create a quantitative survey and a qualitative interview protocol relevant for understanding how beginning teachers from an undergraduate certification program in Texas (n=37) and an alternative certification program in California (n=28) defined classroom success. Once the research instruments were created, participating teachers were asked to complete a survey and then a select few were chosen for further interviews.

Two distinctive populations were used in this study, representing different states, backgrounds and teacher education experiences. Despite differences in the length of the preparation program, amount of field experience, typical age, and varying work environments, the beginning teachers from this study seemed to agree on their perceptions of success. While the samples are limited and might not be representative of all beginning teachers’ views (or subsequently, the emphasis of all pre-service teacher education programs), using populations from significantly different programs reinforces the similarity of the conclusions; connections to other research conducted on beginning teachers further extends consistency and validity in how both populations from this study articulated success in the classroom.

Findings
From both the survey and interview data, findings related to beginning teachers’ views about student test scores in relation to success and, more generally, their beginning teachers’ perspectives about success in the classroom will be presented.

On Student Test Scores
Interestingly, regardless of the type of teacher
preparation program participants in this research study
experienced (undergraduate or alternative), student
test scores were not viewed as indicative of success.

As a part of the quantitative instrument, participants were
asked to specify their definition of success by labeling
various indicators as “most important,” “important,” and
“least important.” Among these indicators were several
different ways of describing success; one of which was
having “Good student test scores relative to the school
average.” Participants ranked those attributes they felt
were most indicative of and most important for success
as ‘1’, those that were important as ‘2’, and those that
were least important as ‘3’. (In this scale, a ‘1’ is the
best score, “most important” for success.) Notably, the
category with the largest number of 2s and 3s for both
populations of participants and the
highest average (2.24 between both
populations) was having good student
test scores. Compared to other ways
of describing and measuring success,
beginning mathematics teachers
across both studies viewed student
test scores as least indicative of
success in the classroom!

For those later interviewed, similar
test scores as a measure of beginning teacher success
were reiterated. During his interview, Chris mentioned
that some of the scores “…aren’t necessarily reflective
of your students actual ability…they’re blowing it off to
some degree. To where it isn’t necessarily useful…”
Hesitations about using test scores as an indicator of
success were voiced, among others, as a fear of setting
oneself up for failure and of the tests’ bias or inability
to correctly assess students’ knowledge. It was also
mentioned, however, that some participants teaching
in schools and districts where a large value was placed
on student performance were conflicted about student
test scores. They recognized that it was a part of their
job, one that was emphasized by their immediate
superiors, and so they felt that test scores had to be
valued. But student test results had little weight on their
own self-reflection of their teaching, feeling success
more for internal reasons than external ones.

Yet at some point, many teachers become more
comfortable with using student data in the evaluation
of teacher performance. What is it about beginning
teachers that made student test scores not seem as
valuable? And what does it mean for retention and
structuring in-service support?

On Success
A surprising result from the survey data was how
unanimously the beginning teachers ranked having
good test scores as a “least important” indicator in
defining success (the mean was 2.24 between both
populations). An unbiased platform of performance
would likely be considered at least somewhat relevant
for determining success. Yet
from the perspective of the
beginning teachers, it was not.
This external measure was
not the primary way beginning
teachers felt successful, or
unsuccessful, about their
teaching. And there are
well. During the interviews, the
participants discussed that: tests do not measure
improvement, but rather a standard (Ali); tests do not
assess in a variety of ways, but in the most efficient
way to score (Abby); tests do not give partial credit, but
mark as right or wrong (Chris); test-taking skills inflate
the performance of some, but anxiety causes some
students to perform below their capability (Katie);
and beginning teachers often are not assigned the
best students, but rather the low-level courses (Erin).
Notably, the beginning teachers viewed their own
assessments differently than state tests, reflecting the
sentiment that class assessments can be informative
for teachers whereas standardized test scores connote
being evaluative of teachers. These ideas give some
explanation for why teachers in general could argue
against the value of test scores in defining classroom
success; however, there were further insights into how beginning teacher conceive of success in the classroom.

From this study, there was a larger, over-arching framework for how beginning teachers defined success. Beginning teachers’ definition of success revolved around them feeling comfortable – in the classroom, with students, and with being teachers. The expectation of beginning teachers was never perfection, but rather “making it through” with the drive to continue improving in future years. Feeling comfortable engaging students, managing a classroom, and wanting to grow professionally, not student test scores, were indicative of success. Especially in a profession that has low retention rates, the desire to continue on and improve as a teacher has significant value in gauging success; even, potentially, more value initially than student achievement. In grouping very important indicators of success, beginning teachers had a tendency to focus on those attributes that had a high degree of individual control (e.g. were mostly within their realm of influence), as opposed to those influenced by and related to others (such as student test scores, and positive feedback on teaching from others). For example, the abilities to create engaging lessons or maintain good classroom learning environments were mentioned as very important to these beginning teachers; these, unlike student test scores, are more readily influenced by and focused on the teachers’ own efforts. Also, these aspects are more concerned with the day-to-day work of teaching; proper reflection on and incorporation of student data in informing classroom decisions takes a much larger, “big picture” perspective, along with proper training. This result makes sense with Fuller and Brown’s (1975) description of the stages of development beginning teachers go through. The stages begin with “identification as a pupil and not teacher,” “concerns of survival in teaching,” and “concerns about own teaching performance.” It is only in the last phase that teachers focus on someone and something outside of themselves: “pupil learning and individual needs.” Both their model and this research reiterate the progression that growth in teaching begins by focusing inwardly, and gradually grows outwardly; with respect to defining first year success, beginning teachers are capable of and expect themselves to do the small things over which they have most control.

**Implications**

Based on the findings related to beginning teachers’ perspectives about success in the classroom, some of the implications related to teacher retention and structuring in-service support for beginning teachers will be discussed.

**On Retention**

Having beginning teachers feel successful in the classroom is valuable for many reasons, not the least of which is retention. And the best indicator for them feeling successful must be based on their definition of success. And perhaps this definition has more merit initially; it is worth considering that in the early years, teacher retention may be a better indicator of success – both for the profession and long-term student achievement – than immediate student achievement. And while the profession needs to consider classroom effectiveness and cannot be based on feelings of success, such feelings in more affective elements ultimately can motivate teachers’ efforts and work in supporting student achievement.

Researchers (see Hanushek, et al., 2007) have found sizeable gains in student achievement associated with initial teacher experience, the most sizeable effects being documented during the first year. This means that teacher retention may be important for long-term growth. Also, the investment of time and resources during the hiring process is costly. Since the investment of hiring new teachers does not necessarily pay off until a few years later, high turnover rates for beginning teachers, even those teachers that increase student scores, can be counter-productive. This drawback is noted by Kane, Rockoff, and Staiger (2007); however, they also suggest that only modest gains in student test scores are needed to offset relatively large differences...
in exit rates. Even still, retention of new teachers is a beneficial and important goal for the field of education; beginning teachers’ feelings of success may promote such retention and growth.

On Structuring In-service Support
Knowledge of how and why beginning teachers view success in the classroom should impact local practices for in-service mentoring and support. Differentiating support begins with understanding beginning teachers’ needs; the focus should be on building productive relationships with beginning teachers, not punitive ones. Beginning teachers tend to focus on classroom issues, especially their role in them, before zeroing in on the details of everyone else; they do not necessarily agree that student test scores are indicative of their success in the classroom (at least in the early years). Relationships, evaluations, and expectations based solely on this aspect may not be fruitful for beginning teachers development or retention. Instead, support should focus on helping novice teachers feel positive about their ability to teach by providing tools that foster internal growth in thinking about their classrooms – something more than just external feedback. The aspects mentioned by beginning teachers in this study tended to focus on the teacher’s performance and efforts in the classroom, so information about and experience with how to engage students, to create productive classroom environments, to use technology and other teaching resources plays a critical role in promoting their overall feelings of success. For beginning teachers in particular, student achievement should be used as a vehicle for promoting their growth and success, not evaluating it.

The approach to support – even for good policies such as assigning mentors – needs to consider carefully the individual and stray away from “one size fits all” policies. Valuable differentiated support takes more into account than simply checking items off a checklist; it involves thorough attention to the needs of beginning teachers, collectively and individually, and identification of ways to support them. Evident from this study and others is that beginning teachers do not have the capacity, initially, to take everything in; their focus, with good reason, tends to revolve around the immediate day-to-day needs and their own efforts at improving. Overwhelmed with new responsibilities and expectations, it is up to school leaders (not novice teachers) to expend the energy and promote finding the best ways to support and foster beginning teachers’ growth. Supporting them begins with listening. Novice teachers, even after a teacher preparation program, are not experts in lesson design, incorporation of resources, time management, classroom management, etc.; careful analysis of – not just policy for – ways to foster teachers’ growth and feelings of success in the classroom will play a critical role in easing the transition that beginning teachers face.

Particularly regarding student test scores, a significant amount of objectivity and reflection is required in order to utilize them – valuably – for informing instructional decisions. The beginning teachers did not necessarily connect student data to their classroom practices; frequently, they lacked the time (and the justification) to reflect on such “big picture” ideas – other needs took priority. Some training may be considered to help beginning teachers identify ways in which student achievement data can be used constructively in their classrooms. Also, proper analysis of student data requires a healthy form of detachment, distance, and objectivity in a way that beginning teachers from this study – who were adjusting, wanting to feel successful, desiring to find a profession and a sense of call – did not always have. Lastly, this generation of beginning teachers represents a new era of educators, especially for thinking about accountability; they are among the first generation of teachers to have grown up...
with the stresses of high stakes accountability tests themselves. Their personal involvement in mandated testing might bring a different view about assessment. For this reason and others, their perspectives – indeed perhaps more than those with more experience and knowledge – matter and may hold the key to increasing retention and promoting long-term professional growth.

**Conclusion**
Standardized student test scores, as accountability for achieving results, depict an important piece of the educational landscape. Yet counter to the increasing importance placed on value-added measures of student test scores as a component of teacher evaluations and pay, the beginning mathematics teachers of this study did not value external measures of success as highly as internal ones. And their perspectives, too, provide important information in the educational picture that informs ideas of success, support, growth, and retention of beginning teachers. Aligning how teachers conceive of success with measures of their effectiveness is important, particularly for novice teachers, who face many challenges during their transition. Educational leaders who expend the energy to foster growth and differentiate support in meaningful ways by listening carefully to the perspectives and needs of their beginning teachers will play a critical role in helping novice teachers transition to the classroom. The voices of beginning teachers matter, and matter on important issues for teacher retention and structuring in-service support. Beginning teachers today could be the educational leaders of tomorrow; their perspective on accountability and success is an important gauge in the conversation for a healthy and improved workforce in the future.

---

**Dr. Nick Wasserman** is an Assistant Professor in the Annette Caldwell Simmons School of Education, specializing in Mathematics Education. He received his B.S. in Mathematics from the University of Texas at Austin with the UTeach program and matriculated from Teachers College, Columbia University with a Ph.D. in Mathematics Education. His scholarly interests focus on teacher knowledge and development, particularly dealing with how the process of teacher education can serve novice teachers. He enjoys teaching mathematics and mathematics education courses, especially getting to work with practicing and future teachers.

**Dr. Edward Ham** is an assistant professor of Mathematics at Bakersfield College. He received his Ph.D. in Mathematics Education from Columbia University. His scholarly interests include the training of elementary mathematics teachers and curriculum redesign of developmental mathematics courses at the college level.