Pre-service and In-services Teachers Perspectives on Academic Success: More than Just A Grade

Lauren D. Goegan
University of Alberta

Amanda I. Radil
University of Alberta

Andrew Brooks
University of Alberta

Lia M. Daniels
University of Alberta

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Lauren D. Goegan, *University of Alberta*
Amanda I. Radil, *University of Alberta*
Andrew Brooks, *University of Alberta*
Lia M. Daniels, *University of Alberta*

Students are constantly bombarded with messages about academic success and the importance of getting good grades. However, definitions of academic success are more complex than a letter grade. Many indicators to define academic success extend primarily from students' perspectives and ignore how teachers' definitions of success. This is an oversight as teachers' perspectives on academic success shape their students' perspectives on academic success for years to come, and thus represent an important voice to be included in the messaging around academic success. Thus, in this study we were interested in pre-service and in-service teachers' definitions of academic success, and how they converge or diverge with indicators outlined in current research. We found that teachers have multiple perspectives on academic success, highlighting the complexity of this construct. Moreover, many of their definitions converged with researchers; however, teachers' definitions were more varied and diverse. Our findings highlight the multidimensional nature of academic success. In closing, we identify various implications for schools and provide suggestions for future research and practice.

Introduction

Conversations about academic success are everywhere. In the hallways, students discuss test scores or class experiences with each other. Around the dinner table, the conversation continues as students talk about their academic success and plans with family. Parents take the conversation to work and create water cooler banter about children's school performance, report card grades, awards, and university applications. Academic success is not only talked about by the individuals within a student's life, but also on TV with news reporters or even characters of a student's favourite TV shows. And of course, academic success is a focal conversation of teachers, principals, and administrators whose job it is to help students be academically successful. These everyday conversations require a shared understanding of "academic success" – a concept that may be more complex than many think.

This complexity is somewhat problematic because when educational stakeholders are not in agreement on the definition of academic success there can be confusion and misperceptions. Moreover, if one indicator of success is overemphasized to the detriment of other indicators, important information about a student's success may be overlooked. The general public regularly equates academic success with good grades, but the empirical literature suggests that there is no single comprehensive and accepted definition of academic success (Krumrei et al., 2013; Robbins et al., 2004; York et al., 2015). Therefore, the purpose of this paper was to bring some additional clarity to this concept by exploring pre-service and in-service teachers' definitions of academic success, and examining how they connect with research indicators.

To achieve this purpose, we first examined pre-service and in-service teachers' definitions of academic

success. Teachers are significant figures within the school and, in many ways, are held accountable for students' academic success (e.g., Smith & Kubacka, 2017). However, one school can have teachers with many different definitions of academic success, perhaps shaped by their personal experiences or years of teaching. For this reason, we wanted to compare the perspectives of emerging and in-service teachers to see if there were differences in how they conceptualize academic success. Moreover, we wanted to compare definitions of academic success outlined by teachers with the indicators utilized in research to investigate points of convergence and divergence. To avoid confusion and misperceptions, teachers' definitions of academic success should be similar to those of researchers.

Academic Success and Grades

Perhaps not surprisingly, grades or grade point averages (GPA) are the most commonly utilized indicator of academic success in research (Lounsbury et al., 2009; York et al., 2015). Generally, researchers conceptualize grades or GPA as an objective measure of academic performance. Indeed, if one student received an A letter grade, and another a B, it is easy to surmise that the first student was more successful. Despite its "objective" reputation, researchers also identify a number of challenges in utilizing GPA as a success indicator. One of the biggest limitations of GPA is that GPA is not representative of the same criteria across different students. This understanding has been prevalent for decades, as Sticker and colleagues (1992) cite the work of Meyers (1908) who, over a century ago, raised questions about GPA. Meyers pointed out that GPA was based on different courses for different students, and the standards for grades were not uniform across courses and departments. For example, everyone has heard of the *easy A course*, or the teacher who is a *hard marker*. This can raise questions about the reliability and validity of GPA as an indicator of academic success. Many others have noted the variability in how students are assigned grades (Beatty et al., 2015; Fuller et al., 2011; Kaplan, 2016; Willingham et al., 2002).

More recently, Kaplan (2016) noted that within a course, grades consisted of different configurations of marks from assignments for each student, and

therefore, the same overall grade in a course can reflect the obtainment of a different set of knowledge and skills. Likewise, scores on any specific assignment may confound content knowledge with task-specific knowledge (Kaplan, 2016; Willingham et al., 2002). Some students have a preference for multiple-choice exams and others consider themselves good writers, and these preferences or beliefs can impact what sections of courses students enroll in and their performance on certain assessments. Research has also found that more subjective disciplines such as the arts have less internal consistency with respect to grades than science courses (Beatty et al., 2015).

The validity of GPA as a measure of skills attained seems to be further challenged if we consider courses where the instructor curves grades to maintain a consistent class average. In those cases, GPA does not reflect a proportion of learning skills or competencies obtained by an individual, but rather their placement along a continuum that compares their learning to that of the others in the class. In this way, grades can move from an intra-individual indication of success to something that is inter-individual. If an *A* is easy to get in one class and next to impossible in another simply because of the grading culture or assessments, how are researchers able to actually make sense of what the grade means in terms of academic success? These challenges raise questions as to the utility of academic achievement as an objective measure of success (Strang, 2015; Zepke & Leach, 2010). Finally, whether compared to the self or others, there is an undeniable psychologically subjective component to grades. For some students, they might be satisfied with getting a *B* in a course, while others would consider a *B* a failure. Therefore, grades are often treated as if they are *the* objective measure of academic success despite being based on a variety of data and resulting in different implications. This is not to suggest that grades are not an indicator of academic success, but rather that researchers and other academic audiences need to be cognisant of the limitations of operationalizing or interpreting grades (York et al., 2015). As such, it is important to consider multiple indicators of academic success in light of the limitations of any one indicator. For this reason, exploring academic success more broadly is timely and prudent in order to deepen our understanding of what it means for students to succeed academically.

What are Student's Definitions of Academic Success?

To examine the definition of academic success, researchers have often asked students how they define academic success for themselves. Therefore, we begin with a review of students' definitions of academic success to highlight the complexity of this construct. In 2007, Osters and Roberts surveyed undergraduate students and found seven themes surrounding definitions of academic success. The most frequently mentioned theme was *doing my best*, which also included the subthemes of achieving personal goals and being satisfied with one's own accomplishments. This theme is highly individualized, and demonstrates a personal perspective when it comes to academic success. Other themes included *learning* (e.g., developing knowledge), *application* (e.g., to career or life), *rewards* (e.g., getting a degree or job), and *becoming a balanced or well-rounded person*. The researchers also identified themes related to both *grades* and *not grades* as indicators of academic success. Nearly a third of students exclusively listed grades as indicating academic success. In contrast, 70% of students commented that grades were only one of many indicators.

In a similar investigation, Yazedjian and colleagues (2008) conducted focus group interviews to explore student's conceptualizations of success, asking the students to respond to the prompt: *Describe what it means to be a successful college student?* They determined that while students' definitions of success were multifaceted, generally they fell into three main themes: good grades, social integration (e.g., sense of connection to the university), and one's ability to navigate the postsecondary environment independently. More recently, research by Jennings and associates (2013) used interviews with students to explore their definitions of success in college. Overall, they found that academic achievement (i.e., getting good grades) was the dominant theme, while other definitions such as social and residential life (e.g., making friends), life management (e.g., balancing academic and social life), and academic engagement (e.g., desire to learn) were also reported. These findings are consistent with the work of Strang (2015) who surveyed college students with the question: *How would you define whether a course is a success to you?* and determined that there were many objective elements, such as grades, and subjective components, such as feelings of growth or accomplishment.

Overall, the findings reviewed here suggest that there are many different ways that students define academic success, highlighting that while grades are important, they are not the only indicator of academic success from the students' perspective. A limitation of these studies however, is that the students involved are from multiple departments, and different departments might place different emphasis on the various components of academic success. For example, students in an Education faculty might view academic success differently than those in Engineering. Gaining the perspective of those who are planning to work in an educational setting is particularly important because these individuals will shape the view of academic success for their future students for years to come. A second limitation of the current literature in this area, is that no research could be located that examines perspectives on academic success by students in the K-12 education system. The studies reviewed above focus on postsecondary environments, which results in a definition of academic success that is specific to that learning environment, missing potential differences when compared to elementary and secondary education. Therefore, research is needed to extend the findings of previous research and examine academic success from the perspective of individuals in the K-12 education system.

How do Teachers Define Academic Success?

Understanding teachers' perspectives about academic success is important because they shape the views of students through their classroom work and influence other educational stakeholders and professionals. Despite this, there has only been one study that examined teachers' definitions of academic success. In 2013, Winton examined the similarities and differences between three schools in how they define success. Various school personnel were invited to participate in interviews where they were asked to define school success and discuss how their school was achieving success. These interviews included teachers, but also principals, secretaries, custodial staff, educational assistants, other school personnel, and parents on the school council. The definitions of success provided were multifaceted, however, Winton notes that "happiness and academic learning (rather than achievement on standardized tests) are common

aspects of each school's multifaceted definition of success" (p. 1). This statement stands in contrast to the emphasis that is often placed on grades as the measure of academic success in research. While this study provides valuable information as to how educational stakeholders define academic success, more information is needed to understand this important construct.

How do Researchers Define Academic Success?

In 2015, York, Gibson and Rankin completed an assessment of the literature on academic success and identified six key components of academic success. First, similar to the perspectives of students and teachers, researchers identify academic achievement, usually defined as grades, as the most common indicator of success. Second, York and colleagues suggest that acquisition of skills and competencies are an important component of academic success. They further suggest that acquisition of skills and competencies is quite similar to a third element of academic success – learning outcomes. Indeed, skills and competencies are often enacted through specific learning outcomes, which are then expressed through academic achievement (i.e., grades), suggesting that these components may be highly interrelated.

The remaining indicators of academic success they identified include: satisfaction, persistence, and career success. Various researchers identify satisfaction as an indicator of academic success (Krumrei-Mancuso et al., 2013; Thurmond & Popkess-Vawter, 2003) suggesting that students should enjoy their experiences as a student. Persistence is defined as "students' continued progression in an academic degree" (York et al., 2015, p. 6) and is related to the completion of a grade or course, that is, student retention and continuation in their academic pursuits. Lastly, career success is defined as "post-college career performance" (Kuh et al., 2006; York et al., 2015, p. 7). Presumably, students engage in academic pursuits for the eventual careers they will have.

The Current Study

The complexity of defining success is evident in the responses from students, educational stakeholders, and researchers reviewed above. It is problematic when educational stakeholders ignore this complexity and

instead rely on a singular indicator of success to the detriment of other potential indicators because it prevents a shared understanding of students' academic success. Therefore, the purpose of the current research was to explore perspectives on this construct and extend current understandings of academic success. We used a combination of quantitative and open-ended written responses to answer the following research questions: (1) How do pre-service and in-service teachers endorse research indicators for academic success? (2) How do pre-service and in-service teachers define academic success for students? (3) How do pre-service and in-service teachers differ in their definitions of academic success? and (4) How do teachers' definitions of academic success converge and diverge with typical measures of academic success used by researchers?

Methods

Participants and Procedures

Preservice Teachers

During the Fall semester (September to December) of 2017, data were collected from a convenience sample of pre-service teachers from a large university in Western Canada. The participants were recruited from the Participant Pool in the Educational Psychology Department that provides students with an opportunity to be involved in research projects in exchange for course credit. Quantitative and qualitative data were collected from students ($n = 196$) via an online survey hosted by Google that required no more than one hour to complete. After providing students with information regarding the purpose of the study, they were prompted to confirm their consent to participate, and consent was inferred through the completion of the survey. In addition to answering the items related to academic success, participants answered questions on a variety of topics including feelings of responsibility, motivational practices and mindsets that are beyond the scope of this study. Participants ranged in age from 18 to 55 ($M = 25.08$), were predominantly females (78.1%) and largely identified as Caucasian (75%). Slightly more students were training to be secondary teachers (53.1%) rather than elementary teachers (46.9%).

These procedures were approved by the University's Research Ethics Board.

In-service Teachers

During the Winter semester (January to April) of 2018, data were collected from a convenience sample of teachers from a mid-sized Canadian city and surrounding area. The participants were recruited at a two-day mandatory teacher's convention. The participants were recruited by research assistants (RAs) who approached teachers with a clipboard and asked them to complete a questionnaire requiring no more than 10 minutes. Consent was inferred through the completion of the survey. Quantitative and qualitative data were collected from in-service teachers (*n* = 310). In addition to answering the items related to academic success, teachers also answered questions related to feelings of responsibility for student motivation, motivational practices and mindsets. After completing the questionnaire, teachers were invited to enter their name into a draw for one of three gift cards. Participants ranged in age from 21 to 67 (*M* = 37.49), and had an average of 11.76 years of teaching experience. The teachers were predominantly identified as female (71.4%) and Caucasian (79%). There was an even split between primary (49.7%) and secondary (50.3%) teachers.

Measures

We collected pre-service and in-service teachers' perspectives on student academic success through one open-ended question and six closed-ended questions. First, participants responded to the open-ended question: *"How do you define academic success for the students in YOUR classroom?"* Second, participants rated the extent to which they agreed with six indicators of academic success (York et al., 2015). Participants were provided with the following statement: *Below are various ways that people have defined academic success. Using the scale 1 (strongly disagree) to 7 (strongly agree), how much do you think each item defines academic success?* Six single items were presented: (a) academic achievement (e.g., grades and GPA), (b) acquisition of skills and competencies (e.g., critical thinking, academic skills), (c) attainment of learning outcomes (e.g., attaining the stated goals of an educational course or program) (d) career success (e.g., post-school career performance such as salary), (e) persistence (e.g., student retention and graduation rates), and (f) satisfaction (e.g., overall school

experience). These items represent the common researcher definitions of academic success.

Plan for Analyses

We conducted our analyses in four steps. First, we examined how strongly pre-service and in-service teachers endorsed the six research indicators for academic success (York et al., 2015) by quantitatively examining the means and correlations. Second, we performed a content analysis (Hsieh & Shannon, 2018) to examine the themes in the pre-service and then the in-service teacher open-ended responses. Two research assistants separately coded the responses, then they compared and discussed their results. During these discussions, codes and themes were refined. Any differences found in data interpretation were discussed until a consensus was reached. Third, we examined similarities and differences in the themes and codes between pre-service and in-service teachers. We created sums and percentages of the themes and codes identified by the participants, and examined the differences in the frequency of themes and subthemes mentioned. Finally, we intentionally integrated the qualitative and quantitative results to identify points of convergence and divergence. The first and second author discussed the indicators of success as identified by research and the participants in this study to identify the similarities (i.e., convergence) and differences (i.e., divergence). During these discussions a joint display was created and revised until consensus was reached.

Results

Pre-service and In-service Teacher Endorsement of Academic Success Items

Pre-service and in-service teachers rated the six research indicators similarly (see Table 1). Both groups rated acquisition of skills and competencies as the indicator that most strongly defines academic success, and academic achievement as the indicator that least strongly defines academic success.

The correlations for the academic success indicators are presented in Table 2. A number of similarities and differences are important to note between pre-service and in-service teachers. In both groups, satisfaction and persistence had the highest correlation. The lowest correlation for in-service teachers was between academic achievement and

satisfaction, while for pre-service teachers, this correlation was not significant. All correlations between the indicators were positive and significant for in-service teachers, suggesting an interconnectedness between indicators, as would be expected given they are all indicators of academic success. For the pre-service teachers, most of the indicators of academic success were positively correlated, with two exceptions. The correlations between academic achievement and satisfaction as well as the correlation between persistence and acquisition of skills and competencies were non-significant.

Pre-service and In-service Teacher Endorsement of Academic Success Items

Although pre-service teachers' responses were coded first, no additional themes had to be added in order to code in-service teachers' responses. Both pre-service and in-service teacher participants identified similar definitions of academic success and therefore we present the qualitative findings together. Overall, six themes emerged to describe their definitions of academic success: (a) performance (b) learning, (c) emotions and motivation, (d) goals, (e) individualized, and (f) counterclaims. Each of these themes is described in detail below and visually represented in Figure 1 (see Table 3 for sample items for each theme and code). The interrater reliability was calculated by determining the total number of codes and the number of codes that were in agreement, which resulting in an interrater reliability of 93%. Thus, we have strong confidence in the themes that were identified from the written responses.

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Table 1. Endorsement of Academic Success Indicators in Ascending Order

Variable	Pre-Service Teachers			In-Service Teachers			Totals		
	N	*M*	*SD*	N	*M*	*SD*	N	*M*	*SD*
1. Academic Achievement	191	4.74	1.48	307	4.87	1.30	498	4.83	1.37
2. Career Success	193	4.77	1.48	304	4.93	1.42	497	4.87	1.45
3. Attainment of Learning Outcomes	193	5.47	1.08	307	5.32	1.25	500	5.38	1.19
4. Persistence	193	5.55	1.12	306	5.76	1.29	499	5.69	1.23
5. Satisfaction	192	5.77	1.31	308	5.78	1.30	500	5.78	1.31
6. Acquisition of Skills & Competencies	193	6.08	.87	306	6.16	1.14	499	6.14	1.05

Table 2. Correlations between Academic Success Variables

Academic Success Variables	1	2	3	4	5	6
1. Academic Achievement	-	.25**	.38**	.18**	-.07	.30**
2. Career Success	.36**	-	.21**	.40**	.28**	.15*
3. Attainment of Learning Outcomes	.52**	.36**	-	.28**	.19**	.40**
4. Persistence	.29**	.45**	.40**	-	.41**	.10
5. Satisfaction	.16**	.38**	.30**	.53**	-	.17*
6. Acquisition of Skills & Competencies	.38**	.26**	.42**	.46**	.42**	-

Note: Pre-service teachers above, in-service teachers below. *p < .05, ** p < .01

Performance was a common theme that emerged from pre-service and in-service teachers' definitions of academic success. Participants often discussed in-school performance as an indicator of academic success, which is commonly demonstrated by grades. This included responses such as, success is "how well students are achieving within grade", and "the most obvious factors are high grades and continued success throughout schooling". Performance or developing the ability to perform in real- or everyday-life was identified as academic success by some participants. For example, "academic success is when a student is able to take the knowledge from the classroom and apply it in the real world. No matter how big or small." And "can apply knowledge outside the classroom". Performance was also identified in terms of future performance, which included success in the future or the acquisition of skills for future use in later grades, post-secondary school, or careers. This included responses such as, "I define academic success as students learning knowledge and skills that will be valuable to them for the rest of their life, as they enter post-secondary institutions and the workforce.", and "I would define academic success as students gaining proficiency in the learning areas needed to move on to the next grade level or post-secondary studies." Performance was a major theme and in-school performance was the most frequently mentioned type of performance.

Pre-service and in-service teachers identified *learning* as a theme in their definitions of academic success, including comments related to general learning, educational outcomes, and growth. General learning was identified when a participant commented that academic success was defined as the acquisition of a specific skill or gaining of knowledge. For example, "complete understanding of a concept," and "developing skills such as critical thinking and problem solving". Educational outcomes were also identified by participants within the theme of learning. These responses were more specific than the general learning code. Here, participants related academic success to learning outcomes, class requirements, or curriculum goals as outlined by the teacher, school, or school board. Some of the comments within this code included: "understanding the curriculum's learning outcomes," and "meeting course requirements." Participants also commented on progress or improvement in students over time as academic success, which we included within the learning theme. For example: "a constant improvement throughout the course", and "student growth and development." Overall, learning was a predominant theme in the participant responses.

Emotions and motivation emerged as a theme discussed by pre-service and in-service teachers. Participants discussed fostering feelings of motivation or a desire to learn more in students as a form of academic success. This included responses such as "curiosity and desire to learn", and "they are motivated to learn." Other participants mentioned effort as an indicator of academic success, which was coded when they described success as students giving their best effort or putting their best foot forward. Here, the focus was not on products as much as it was on the process. For example, academic success is "putting in their best effort" and "when a student tries their best." Participants also described positive emotions held by students as academic success. This included feelings of happiness and satisfaction stated as: "they are happy to be in school", and "loving learning, positive attitudes." Several participants discussed developing confidence in students as an indicator of academic success. This included confidence by students to learn, to use what they learned, and to succeed. For example, participants gave responses such as "academic success is when a student is comfortable [and] confident in their learning abilities", and "when a student feels confident that they understand and can complete the subjects they are taking." Definitions of academic success that occurred within the theme of emotions and motivation were frequently identified by both pre-service and in-service teachers.

The identification of *goals* as part of academic success was another theme that emerged from the participants responses. Goals included comments where academic success occurred when students achieved goals created by themselves, teachers, or in collaboration. For example, success is "when a student achieves the realistic goals set by themselves and their teacher", and "setting and achieving personal goals in regards to academic results."

Lastly, *counterclaims* emerged as a theme. Statements identified for this theme described what academic success is not during the process of trying to define what it is. For example, one participant said, "I would

say academic success is achieving the highest possible feeling of accomplishment by the student, regardless of the grade they received. If a student can make progress in their academic career, I think this should be seen as a success, not whether or not they got a high mark." In this example, the participant specifically mentions how academic success is not based on the grade students achieve. Other responses included "grades/scores do not define academic success…" and "academic success is discovering a love of some form, something to pursue, rather than a simple overall set of standardized test scores." Most frequently, the thing that academic success was *not* was identified as grades.

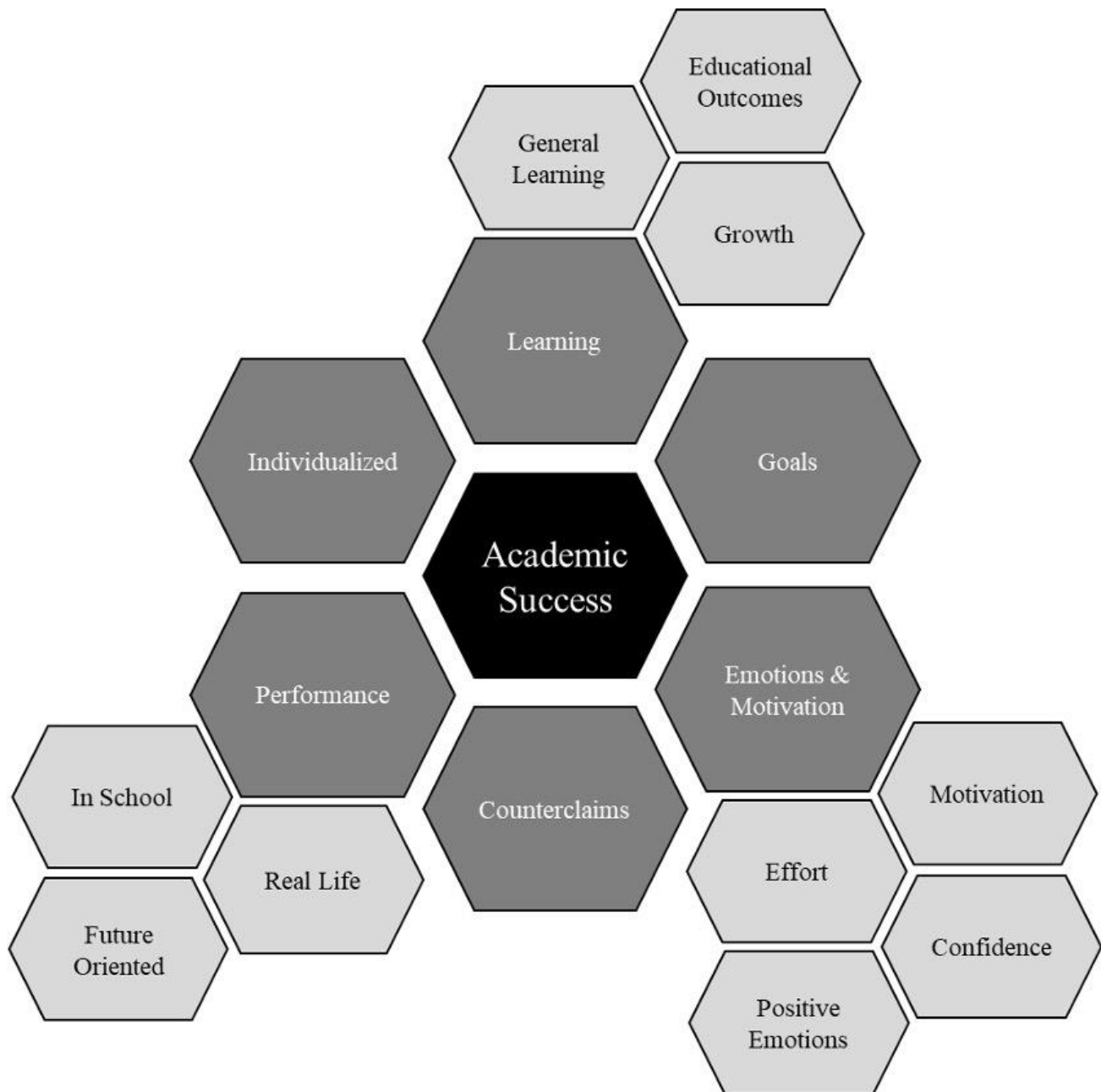Figure 1. Themes and Codes for Academic Success

Table 3. Description and Examples of Themes and Codes from Participants' Responses

Themes and Codes	Description	Example from Pre-Service Teachers	Example from In-Service Teachers
Performance			
In-School	Demonstration or application of knowledge in school.	". . . high grades and continued success throughout schooling."	"The ability to achieve results on tests."
Real-Life	Gaining of knowledge and skills for application in personal life.	"Application of the learning in a subject in real life."	"Ability to apply skills learned in school to the outside world"
Future-Oriented	Attainment of knowledge and skills for future application.	"Having the skills to make a decent living."	"Being able to be a successful adult."
Learning			
General Learning	The acquisition of knowledge or skills identified in general terms.	"The attainment of knowledge and the acquisition of skills"	"Students understanding and grasping concepts"
Educational Outcomes	Progress/improvement related specific to education outcomes (e.g., curriculum outcomes).	"Being able to achieve the outcomes of the curriculum."	"meeting specific meeting specific standards"
Growth	Change and/or improvement of the individual over time.	"It is a student doing better than he did before."	"development from K-12"
Emotions & Motivation			
Motivation	A desire to learn.	"Student motivation and interest in a subject"	"Wanting to learn more . . ."
Effort	Students give their best effort.	"effort a student puts into his/her work"	". . . putting in their best effort"
Positive Emotions	Positive feelings held by students regarding their learning environment or outcomes.	"Each individual student is happy with the level of knowledge they have received."	"Students feeling successful"
Confidence	Self-assuredness in students regarding their ability to acquire and use knowledge and skills.	"A feeling of increased confidence in the content, social skills, and self-worth. . ."	"…feel confident with the material."
Goals	Creation and achievement of goals.	"When students accomplish the goals that both the students and the teachers make."	"Achieving the goals they set for themselves"
Individualized	Academic success varies between individuals.	"varies between students and vary at different times in the student's career"	"Academic success changes person to person"
Counterclaim	What academic success is not.	"Grades/Scores do not define academic success"	"… not achievement by grade"

Differences and Similarities in Definitions Between Groups

We coded the same six themes based on the pre-service and in-service teacher responses, suggesting these participants viewed academic success in similar ways. However, there were differences in the frequency of responses, as measured by the percentage of responses within a particular code. The three most common themes that we coded were *performance*, *learning*, and *emotions and motivation*. Across participants, close to 90% of responses were coded into these three themes, and therefore, we will focus on them in our examination of differences and similarities between groups (see Table 4).

Although pre-service and in-service teachers were roughly equal in overall comments being coded as performance, they differed in the specific indicators of performance. Pre-service teachers were more likely to list in-school indicators of performance than in-service teachers, resulting in an 11% difference. In contrast, more in-service than pre-service teachers named non-school based indicators of performance. Within the theme of learning, pre-service and in-service teachers commented on growth with the same relative frequency. Pre-service teachers commented more on general learning outcomes than in-service teachers, resulting in a 9% difference. In-service teachers commented more on educational outcomes compared to pre-service teachers, resulting in an 8% difference. Within the theme of emotions and motivation, effort was mentioned at twice the frequency in responses from pre-service compared to in-service teachers at 40% and 20% respectively. The remaining codes of motivation, positive emotions and confidence all had a higher frequency of mention by in-service teachers.

Table 4. Percentage of Responses within each Category

Themes and Codes	In-service Teachers	Pre-service Teacher	Difference
Performance: Total	32	27	5
In-School	59	70	-11
Real-Life	16	11	5
Future-Oriented	25	19	6
Learning: Total	37	32	5
General Learning	43	52	-9
Educational Outcomes	17	9	8
Growth	40	39	1
Emotions & Motivation: Total	20	23	-3
Motivation	30	25	5
Effort	20	40	-20
Positive Emotions	25	22	3
Confidence	25	13	12
Goals: Total	6	7	-1
Individualized: Total	4	9	-5
Counterclaims: Total	1	2	-1

Note: numbers show percentages of responses within a category. The themes are bolded and they add to 100 percent. The codes within a particular theme (shown in grey) also add to 100 percent.

Of particular note is the confidence code, as it was mentioned in almost twice as many responses from in-service teachers than pre-service teachers. See Table 4 for a summary of the differences between the in-service and pre-service teachers.

Comparing Teachers' Definitions to Research Indicators

We intentionally integrated the teachers' open-ended themes with their scores on the researcher-identified indicators of academic success to identify points of convergence and divergence (see Figure 2). The criterion of academic achievement was associated with the theme of performance, in particular, the subtheme of in-school. Teachers commented on their students' performance in school as being related to their academic achievement but also beyond the classroom and grades. Teachers described student performance as also being able to apply their learning to real-life or to their future. This suggests that they take a broader perspective when it comes to performance and achievement. Additionally, the performance theme, and in particular the subtheme future-oriented, was associated with the indicator of career success. Therefore, two of the subthemes of performance connect with two of the research indicators for academic success. An important note with these two research indicators, is that they had the lowest means when teachers were asked how much they think those indicators define success. Moreover, these two indicators were significantly, positively correlated. Collectively, we interpret these results to suggest a connection between research indicators and teacher identified indicators of success, however, teachers' definitions appear to be more nuanced. For example, future-oriented is more broadly identified than just career success. As one teacher noted, it can represent "taking the material and using it in their lives." Moreover, real-life performance is absent from the research indicators.

The research indicators of acquisition of skills and competencies and attainment of learning outcomes both converged with the teacher identified theme of learning. In particular, we identified a convergence between acquisition of skills and competencies and the subtheme of general learning, as both highlight success in broad terms. Moreover, we noted convergence between attainment of learning outcomes and the subtheme of educational outcomes, as these both

specified indicators of learning related to the curriculum or learning goals as outlined by their school or provincial programs of study. Interestingly, the research indicator of acquisition of skills and competencies had the highest means when pre-service and in-service teachers were asked how much they think this criterion defines success and was mentioned most frequently in the teachers' responses. Moreover, acquisition of skills and competencies and attainment of learning outcomes had high positive correlations. There appears to be an overarching element of academic success that involves learning and similar to performance, learning itself can be nuanced in its definition. Interestingly, growth was absent from the research indicators, but presumably, within the acquisition of skills and competencies and attainment of learning outcomes students are growing in their knowledge base and skills.

The teacher identified theme of motivation and emotions converged with the research criterion of persistence and satisfaction. In particular, the subtheme of effort was related to persistence, as defined by "students' continued progression in an academic degree" (York et al., 2015, p. 6). Moreover, satisfaction as a criterion of academic success is similar to the subtheme of positive emotions (e.g., happiness and enjoyment). Of note, satisfaction and persistence had the highest correlation and was endorsed strongly by pre-service and in-service teachers. What was missing from the research indicators for academic success were the subthemes of motivation and confidence, which did not converge with any of the research indicators.

Finally, half of the themes that we created based on the teachers' responses did not fit into the indicators identified in the literature (e.g., goals, individualized and counterclaims), thus diverging from research indicators. The spaces of convergence and divergence will be highlighted further in the discussion.

Discussion

Our research examined the convergence of pre-service and practicing teachers' definition of academic success with common indicators used by researchers. Specifically, the perspectives of pre-service and in-service teachers were examined through open-ended descriptions and endorsement of research indicators

for academic success. We also examined how their open-ended perspectives converged and diverged with the research indicators. In this discussion, we focus on how the results can expand our current understanding of the term academic success. Specifically, we discuss (a) the interpretation of academic success as more than grades, (b) the importance of other indicators of academic success, and (c) the connections between teachers' definitions of success and the indicators utilized in research. In closing, we discuss the limitations of our research and recommendations for potential future research.

Academic Success is More Than Grades

Based on the results from our study, we were able to identify six themes in the participants' definitions for academic success, in addition to 10 subthemes. Therefore, while grades are an important component in the conversation about academic success, grades are clearly not *the* only indicator of success that teachers identify. This is consistent with the literature on academic success that suggests that there is no singular accepted definition of success (Krumrei et al., 2013; Robbins, et al., 2004; York, et al., 2015). This is

Figure 2. Convergence and Divergence of Teachers' Definitions and Research Indicators.
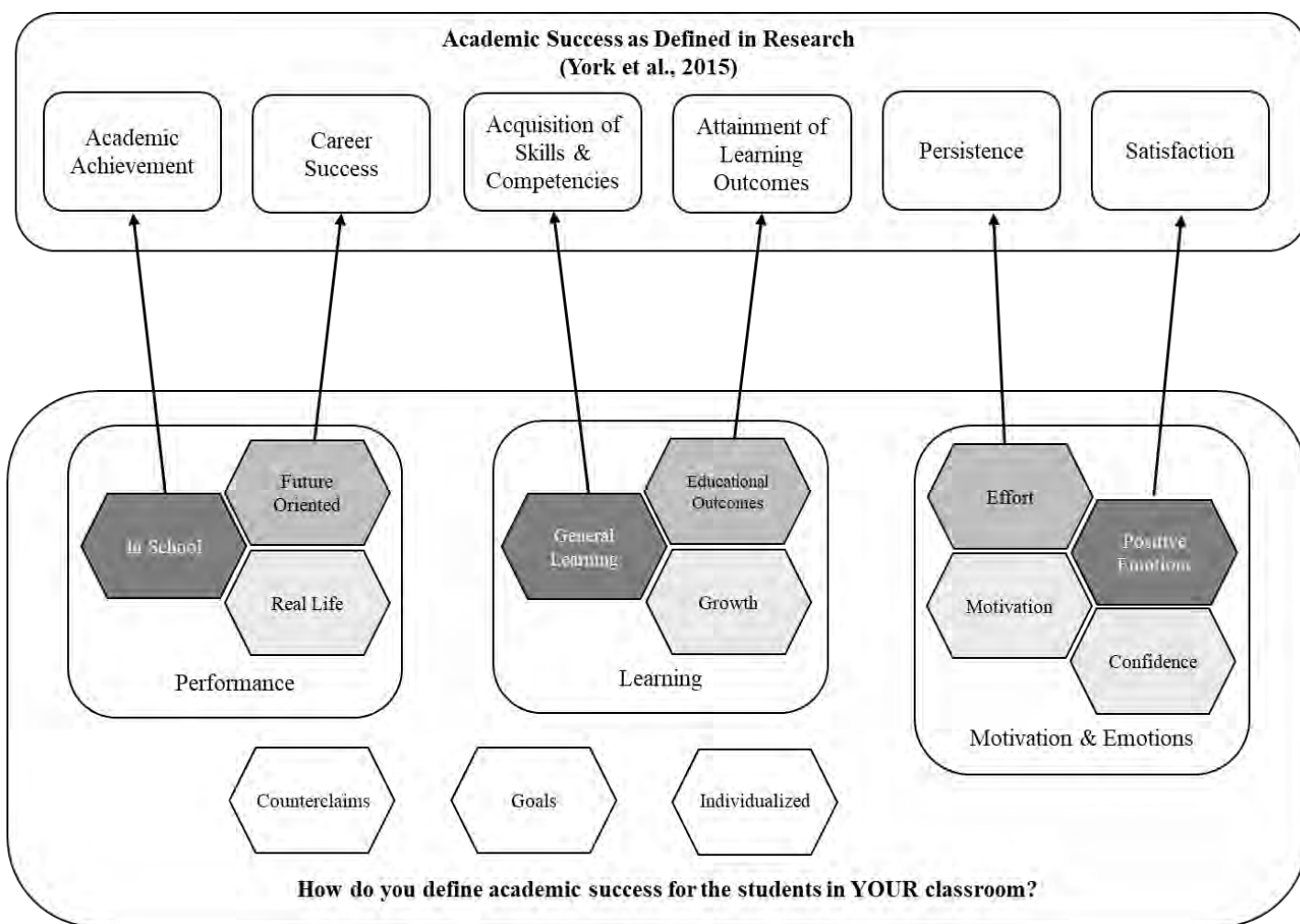
Note: Shading in the figure represents the degree of convergence, darker shading indicates more convergence with the research indicators than lighter shading. Themes in white indicate no convergence, therefore, diverge with the research indicators.

important to keep in mind given the emphasis that can often be placed on teachers to have high achieving students (particularly in terms of grades) from a variety of stakeholders, including school board personnel, principals, and administrative staff, as well as the students and their parents.

Indeed, grades themselves were part of a larger theme – performance. While close to a third of pre-service and in-service teachers mentioned performance, performance included in-school (e.g., grades), but also real-life (e.g., "be able to apply what they learned at school into their daily lives") and future-oriented performance (e.g., "enable them with what they need to be contributing members of society."). This is consistent with previous research that identifies academic success beyond the school. For example, York et al. (2015) identified career success in their indicators. Not surprisingly, career success and performance converged with one another in our analyses, as academic success when conceptualized as performance that can take on a variety of forms. The idea of performance can also be seen in the work of Osters and Roberts (2007) who identified the theme of application of learning to career or life, which depending on the details of the statement, could fit into our real-life or future-oriented performance subthemes. Therefore, while grades are important, they are certainly not the only definition of success, but part of a larger picture. This is important for individuals within the school to keep in mind when discussing students' performance in the classroom.

This idea is further evident in the theme counterclaims that we identified in the participants' definitions of success. Pre-service and in-service teachers almost exclusively noted *not grades* when making a counterclaim to the definition of success. This is consistent with the work of Osters and Roberts (2007) who identified a theme *not grades* as well. These counterclaims could suggest that pre-service and in-service teachers struggle themselves with the emphasis on grades in the education setting and with articulating what success is when it is not grades. Winton's work (2013) also noted that across the three schools surveyed, that individuals highlighted academic learning and not achievement on standardized tests as a common aspect of definitions of academic success.

Quantitatively, academic achievement (i.e., grades) was the lowest rated indicator of success by our participants. The point difference between academic achievement and the highest rated indicator, which was acquisition of skills & competences, was 1.34 on the 7-point scale. This quantitative finding suggests that the indicator of success used most frequently by researchers is actually the least endorsed by pre-service and in-service teachers. We encourage researchers who use grades as their indicator of success to acknowledge that grades are not the ubiquitous indicator of success, and acknowledge the strengths and limitations of this indicator. When looking for other indicators of success, we encourage researchers to consult teachers and other school personnel. Our findings can provide researchers and educational stakeholders with some guidance for identifying and considering additional indicators, and we provide some examples below.

The Importance of Other Indicators of Academic Success

Learning is Important to Consider

The research indicator of *acquisition of skills and competencies* had the highest means when we asked teachers how much various indicators represented academic success. Moreover, based on the frequency calculation, the theme of *learning* was mentioned the most as an indicator of academic success. Perhaps not surprising, the research indicator of acquisition of skills and competencies converged with the theme of learning. Of note, pre-service teachers made more comments related to general learning, while in-service teachers make more statements around specific educational outcomes. Pre-service teachers do not have a classroom of their own yet, and therefore may be less likely to identify with specific educational comes for a particular grade or subject area. On the other hand, in-service teachers who were asked to define academic success have a specific classroom with a set curriculum. Therefore, it seems reasonable they would be more specific when identifying the components of learning that were mentioned in relation to the educational outcomes.

The emphasis on learning found in the pre-service and in-service teachers' responses may highlight the importance of finding a balance between summative and formative assessment. Summative assessment measures students learning, in the form of a grade, while formative assessment provides important feedback for learning and growth (Frey, 2013). Indeed, a report by the Council of the Great City Schools

(2015), found that students in the United States take on average 112.3 standardized tests between pre-Kindergarten and grade 12. While these tests are an important component of any educational system, they must be properly balanced with an educational approach that emphasizes personal growth and formative feedback.

Moreover, a shift is needed in research to capture learning as an indicator of academic success. York and colleagues (2015) suggest that academic achievement (i.e., grades) "should be a direct result of attaining learning objectives and acquiring desired skills and competencies" (p. 6). However, given the challenges with grades reviewed above, more efforts are needed to ensure learning is being captured as a measure of academic success moving forward. We suggest that researchers include more context around how grades are determined when including them as an indicator of academic success, and look for others ways to capture success beyond a grade. For example, an individual could complete a task to demonstrate learning, or self-report on their learning experiences and growth. The use of ongoing assessment in the classroom could be an important avenue for assessing learning (McMillan et al., 2011). Teachers could perform a diagnostic assessment for their students at the beginning of a course or unit to determine students' level of knowledge, skills and understanding (McMillan et al., 2011). From there, teachers can implement on-going assessments to evaluate student learning and growth over time. For researchers interested in incorporating learning and an indicator for success in their studies, longitudinal designed studies would be well suited to this type of investigation.

Emotions and Motivation is Important Too

Based on the frequency calculation, the theme of *emotions and motivation* was regularly mentioned by participants. This is similar to the findings of Jennings and colleagues (2013) who identified the theme of academic engagement. This theme may be an important area of consideration for academic success moving forward for both researchers and teachers. Indeed, the differences between the pre-service and in-service teachers were most prominent here, perhaps suggesting a shift in perspective of pre-service teachers towards constructs such as effort and motivation. Of note, the pre-service teachers mentioned effort twice as often as in-service teachers. One possible reason for

this difference could be that pre-service teachers themselves are still students who are putting in effort for their own academic success in their educational programs. On the other hand, in-service teachers are themselves not students, and may be less likely to consider effort when it comes to academic success.

Additionally, there have been conversations about the role of effort in education, particularly when it comes to grading. For example, Fan and colleagues (2019) examined the ethical issues in classroom assessment and suggest that students' grades should only provide information about their learning, and thus should not be influenced by factors such as student effort. The discussion of effort in relation to grades is beyond the scope of this paper, but provides some interesting considerations when it comes to a teacher's definitions of academic success and the inclusion of effort in their responses. This is an important area of conversation for educational stakeholders when making decisions for defining academic success.

Indeed, motivation and assessment practices have become an important area of consideration recently in education (see Daniels et al., 2020). Two strategies for creating assessments that support intrinsic motivation include, providing students with choice or autonomy, not only in the content, but also the product for assessment, and highlighting the value of the task. Indeed, utility-value, described as when a student chooses to complete a task before it is perceived as useful or relevant to their short- or long-term goals (Eccles & Wigfield, 2002), has been found to be effective in the areas of STEM for supporting student interest and increasing student grades (e.g., Harackiewicz et al., 2016). For more information about how to construct a utility-value writing assignment for the sciences, see Daniels and Goegan (2019). By increasing attention given to these motivational components in assessment, the focus on grades may be shifted to the indicators of learning, emotion and motivation that are identified more frequently by pre-service and in-service teachers as indicators of academic success. This could be an important avenue for professional development or an element of teacher preparation programs.

The Importance of Other Indicators of Academic Success

The results from our study suggest that there is overlap between teachers' definitions of success and

the indicators used in research, however, the definitions provided by teachers are more nuanced and not equal in their overlap. Indeed, the integration of our qualitative and quantitative strands suggest that teachers' definitions of success are more varied than the research indicators. Moreover, there were three themes that diverged from the research indicators: *goals*, *individualized* and *counterclaims*. Goals were discussed in terms of students achieving their own goals, teacher's goals, or goals made in collaboration. The idea of goals connects with the theme of individualized. Indeed, if a student is setting a goal for themselves, this is a personalized indicator of success. For example, one student might have the goal to get an *A* in a course, while another might want to simply pass a course they find challenging. Both relate to grades, yet the individual perspective can be seen in how they conceptualize success in terms of that grade, adding an additional layer of complexity to academic achievement. It may be advantageous for teachers and students to discuss their goals in the classroom, so they can develop an understanding of how the other views academic success.

The theme of counterclaims was not present in the research indicators, but a number of teachers described what academic success was not before, or instead of, defining it. These comments show teachers wrestling with their own definitions of academic success, or perhaps wrestling with indicators of success utilized by other educational stakeholders. While we do not see this in the research indicators, it could be that researchers wrestle with how to define success before undertaking their research and this theme of counterclaims is therefore missed in the published version of their studies.

Implications for Practitioners: Individualization and Multiple Indicators of Academic Success

We advocate for a more multifaceted definition of academic success than is currently present in the research literature. One avenue that should be given more consideration is the individualized component to the definition of success. Indeed, the pre-service and in-service teachers in our sample often highlighted the student within their definitions. For example, the individualized theme highlights the importance of differing definitions of success based on the student in question. This is consistent with the previous work of Oster and Roberts (2007), who recruited students and

found the most common theme for academic success was *doing my best* – which we would interpret as an individualized statement. Individualized components of success can be seen within the themes we created based on the teachers' responses. For example, within the goals theme, the participants identified that academic success involved students setting their own goals – an individualized perspective. Moreover, even with the theme of grades, what is considered a *good* grade will depend on the student themselves, as good can be subjective. A qualitative research design wherein students are able to define success for themselves and how they were able to achieve that success, could provide important additional information for this area.

Additionally, the incorporation of individualization when it comes to academic success is an important discussion needed within teacher preparation programs. Indeed, at the university where this research was conducted, the required course on Educational Assessment provides instruction on the development of assessment tools in the classroom, but typically does not provide targeted instruction on different indicators of academic success. By facilitating a discussion around indicators of success, it can help pre-service teachers understand the nuances of this construct. In the future, this greater understanding of multiple indicators of academic success can support the conversations with others including during parent-teacher interviews, wherein if parents are singularly focused on their child's perceived poor grades, the teacher can draw on other important indicators of success where that particular child might be flourishing.

The emphasis on the individual and the nuanced understanding of academic success highlights the move towards differentiated instruction in the classroom. Indeed, within Alberta, Canada, where this research was conducted, differentiated instruction is an important component of consideration within the education system. Differentiated instruction is highlighted as a philosophy that promotes learning environments and "acknowledges and values differences in student learning strengths, needs, interests and abilities" (Government of Alberta, 2018). Therefore, the nuanced understanding of academic success also needs to take into consideration *who* the individual is in addition to the understanding of *what* academic success is. This is important for teachers who

work with a diverse group of students, and researchers who incorporate various learners into their research projects.

Additionally, we advocate for educational stakeholders and researchers to utilize multiple indicators when talking about academic success. For example, when teachers discuss a student's academic success, they can mention their grades (i.e., performance), the growth that has occurred since the beginning of the term (i.e., learning), the effort they are putting into the assignments, or how much they are enjoying their studies (e.g., motivation and emotions). For quantitative researchers, we recommend the use of multiple indicators of success in their research where possible. Indeed, previous researchers who have utilized multiple indicators of success have found distinct relationships between variables predicting the various indicators (e.g., Goegan & Daniels, 2019; Keup, 2006; Robbins et al., 2004). By incorporating more than one indicator of success, a more nuanced understanding can be achieved. In contrast, for qualitative researchers, it would be valuable when discussing academic success to have participants reflect on how they are defining this construct at the beginning of an interview or focus group in order to ensure that there is a shared understanding with the interviewer. Alternatively, researchers could provide participants with a definition of academic success to be considered when participating in their research to ensure all involved are considering the same indicator.

Limitations and Future Directions

While our findings provide important insights regarding definitions of academic success, there are three important limitations. First, the sample consisted of pre-service and in-service teachers within one Canadian city and surrounding area. How these individuals define success may differ from other provinces within Canada and from other countries. Therefore, future research should include other provinces and countries. This examination will provide important information regarding the definition of academic success, and identify where similarities and differences are across these various spaces to further enrich the conversation around success.

A second limitation of our study was the exclusive use of self-report data. The pre-service and in-service teachers completed surveys where they provided

information about how they think about and define academic success. This provided us with richness in the variety of responses and allowed us to see the nuances in the definitions of success. However, we are unable to determine whether how they *say* they define academic success for their students is consistent with how they *actually* define success in their classroom practices. For example, how a teacher might incorporate the individualized indicator of success for the various students in their classroom. Future research should extend our findings with classroom observation to determine how these definitions play out in the teacher's classroom setting.

Lastly, we did not perform member checking (Birt et al., 2016) with participants. It would have been advantageous to provide the participants with the themes and codes that were identified in their responses and invite them to comment on our thematic analysis to further develop the themes and codes from their responses. This process would allow for any potential misconceptions in definitions to be resolved, and teachers to identify anything that might have been missing in the themes we created. Creating partnerships with teachers in the investigation of academic success would strengthen the results found here.

Based on these limitations and the findings, we offer some suggestions for future research. First, an exploration of *counterclaims* could provide important information about how various educational stakeholders define success. Most of the participants who provided counterclaims mentioned grades, which could suggest an emphasis on grades from others in the school such as principals or even individuals outside the school, including parents. By further exploring counterclaims, it could provide important information for educational stakeholders to have a conversation about how they want to define success for students in their classrooms or schools. Second, an examination of how teachers' definitions of success translate to their students and classrooms could provide important information to build on the results here. For example, achievement goal theory suggests that when students have performance goals (i.e., grades), they are more likely to use shallow cognitive strategies, and display academic dishonesty (Van Yperen et al., 2011). This could provide valuable information for recommending one indicator of success over another in the future.

Conclusions

In conclusion, our studies provide valuable information regarding academic success from the perspectives of teachers, and compares and contrasts those perspectives against common indicators used by researchers. The results here highlight the complex nature of academic success, and we advise that the scope of academic success needs to be considered beyond grades, to other identified indicators in research and educational settings. The current research provides educational stakeholders with important points of consideration when conceptualizing academic success in their schools and for their students. Academic success as a concept is nuanced. Therefore, multiple indicators of success should be utilized when communicating information about a student's academic success in the school setting and in research studies. Without this, academic success may be misperceived or misrepresented to the detriment of students.

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Corresponding Author

Lauren D. Goegan, Ph.D.
University of Alberta

email: goegan@ualberta.ca