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Lisa E. Baranik, Kenneth E. Barron, Sara J. Finney

East Carolina University, James Madison University

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Examining Specific Versus General Measures of Achievement Goals

Lisa E. Baranik
East Carolina University

Kenneth E. Barron and Sara J. Finney
James Madison University

The current research compared specific versus general measures of a 2 × 2 model of achievement goals. We found that specific achievement goals were better predictors of specific measures of interest in learning and perceived value of learning, whereas specific and general measures of achievement goals did not differ as predictors of general interest in learning, general perceived value of learning, or general and specific measures of performance. Furthermore, mastery achievement goals may be affected more across different measurement contexts than performance achievement goals.

Achievement goal theory has been used to explain and predict a number of work-related and education-related outcomes. Although achievement goal theory represents an important framework for understanding employee and student attitudes, behaviors, and cognitions, a number of important issues regarding how to best measure achievement goals remain. For example, DeShon and Gillespie (2005) identified a number of conceptual inconsistencies within achievement goal research, including the definition, dimensionality, profiles, and stability of achievement goals, stressing that “despite the widespread study of achievement goals, the literature on this construct is in disarray” (p. 1096). Other theorists (e.g., Elliot, 2005; Elliot & Thrash, 2001; Grant & Dweck, 2003) have made a similar call to organize the current conceptualization and operationalization of achievement goals.

The focus of the current study is to examine an important measurement issue associated with the achievement goal construct: specificity of measurement. Researchers have measured achievement goals at multiple levels of specificity. For example, Elliot and colleagues (Elliot & McGregor, 2001) tend to measure achievement goals at a specific level, asking participants to report their achievement goals for a specific situation (e.g., their goals for a particular academic class). In contrast, other researchers have measured achievement goals at a very broad level without reference to specific situations (Button, Mathieu, & Zajac, 1996). Finally, VandeWalle (1997) believed that achievement goals may be best assessed at midlevels of specificity by measuring achievement goals in the context of a particular achievement domain, such as work goals or academic goals. Although measures of varying specificity have been used, little research has been...
conducted to examine the implications of using achievement goal measures of varying specificity levels. We address this gap in the literature by comparing a specific measure of achievement goals to a midlevel measure of achievement goals.

DEFINITION AND DIMENSIONALITY OF ACHIEVEMENT GOALS

Achievement goals refer to the reason an individual engages in an achievement-related activity and the referent an individual uses to gauge competence in the activity. Initially achievement goal theorists (e.g., Dweck, 1986; Nicholls, 1984) proposed two types of goals: mastery and performance. Individuals with mastery goals strive to develop competence on tasks, whereas individuals with performance goals focus on demonstrating competence relative to others.

Theorists then noted another dimension of achievement goal pursuit that distinguished between approach and avoidance strivings (e.g., Elliot & Harackiewicz, 1996; VandeWalle, 1997). This distinction was first used to separate out two types of performance goals, resulting in a three-factor achievement goal model involving mastery, performance-approach, and performance-avoidance goals. Performance-approach goals were defined as striving to demonstrate competence relative to others, and performance-avoidance goals were defined as striving to avoid demonstrating incompetence relative to others.

Splitting performance goals into separate performance-approach and performance-avoidance goals helped clarify a number of discrepancies concerning when performance goals were most likely to have adaptive or maladaptive consequences (Rawsthorne & Elliot, 1999). For example, in work domains, studies using Button et al.'s (1996) two-factor measure of achievement goals found that performance goals were sometimes positively and sometimes negatively related to job performance (VandeWalle, Cron, & Slocum, 2001; Yeo & Neal, 2004) and other work-related outcomes (Diefendorff, 2004; Gong & Fan, 2006). However, studies using a three-factor measure of achievement goals, such as the instrument developed by VandeWalle (1997), found that performance-approach goals were linked to adaptive work-related outcome variables, whereas performance-avoidance goals were linked to maladaptive work-related outcome variables (Brett & VandeWalle, 1999; Cron, Slocum, VandeWalle, & Fu, 2005; Heimbeck, Frese, Sonnentag, & Keith, 2003; Payne, Youngcourt, & Beaubien, 2007; Porath & Bateman, 2006; VandeWalle, 2001; VandeWalle & Cummings, 1997). Researchers found a similar pattern when using a unidimensional measure of performance goals versus a two-dimensional approach-avoidance measure of performance goals in education domains (see Elliot, 1999, for a review). In addition to clarifying the relationship between performance goals and work-related and education-related outcome variables, distinguishing between performance-approach and performance-avoidance goals also led many theorists to rethink whether more adaptive outcomes were associated with a sole mastery goal pursuit or a combination of mastery and performance-approach goals (Barron & Harackiewicz, 2001; Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002).

1In keeping with our goal to address issues and inconsistencies in achievement goal literature, we are adhering to Elliot's (2005) call to refer to achievement goals as mastery and performance goals. It is important to note, however, that other terms have been used and suggested by different researchers, such as “learning” versus “performance” goals (Dweck, 1986) “task” versus “ego” goals (Maehr & Nicholls, 1980), and “intrinsic” versus “extrinsic” goals (Pintrich & Garcia, 1991).
One of the most recent conceptualizations of achievement goals (Elliot & McGregor, 2001) applied the approach-avoidance distinction to separate out two types of mastery goals, resulting in a 2 (mastery vs. performance) × 2 (approach vs. avoidance) model of achievement goals (see Elliot, 2005, for a review). Mastery-approach goals were defined as striving to develop competence, whereas mastery-avoidance goals were defined as striving to avoid incompetence as it relates to a specific task or compares to an individual’s past performance. Currently, the merit of including mastery-avoidance as a fourth achievement goal remains unresolved (Payne et al., 2007). Initial research indicates that mastery-avoidance goals are linked to maladaptive outcome variables; however, they are not as deleterious as performance-avoidance goals (Elliot, 2005).

The addition of mastery-avoidance goals was justified theoretically by Elliot and colleagues (Elliot, 2005; Elliot & McGregor, 2001). Researchers inconsistently describe and operationalize achievement goals (DeShon & Gillespie, 2005), and in an attempt to help clarify achievement goal theory, Elliot and colleagues organized achievement goals according to an individual’s definition of competence and valence toward competence. Briefly, an individual can define competence in three ways: relative to absolute performance on a task, to one’s past performance, or to others’ performance. Mastery goals reflect a definition of competence defined relative to absolute performance on a task or to past performance; performance goals reflect a definition of competence defined relative to others. Mastery and performance goals can be further differentiated by approach and avoidance strivings. For example, in a training or classroom situation, individuals with a dominant mastery-approach goal orientation would focus on learning as much as possible, whereas individuals with a dominant mastery-avoidance goal orientation would focus on avoiding incompetence at the tasks and skills being taught. Thus, when engaging in work-related or education-related behaviors, the mindsets of individuals espousing different achievement goals can be quite different. The inclusion of all four goals of the 2 × 2 model may be necessary for identifying the optimal combination of achievement goals (Pastor, Barron, Davis, & Miller, 2007).

**SPECIFICITY OF MEASUREMENT**

Refining the dimensionality of the achievement goal construct, especially by splitting performance goals into performance-approach and performance-avoidance goals, helped clarify the relationship between achievement goals and outcome variables. However, specificity of measurement is another important measurement issue that may help clarify how achievement goals relate to outcome variables. Measurement specificity focuses on whether a construct is best assessed at a general level (e.g., “What are your achievement goals for your job?”) or a more situationally specific level (e.g., “What are your achievement goals for the upcoming training program?”; see Button et al., 1996; DeShon & Gillespie, 2005; Finney, Pieper, & Barron, 2004; Grant & Dweck, 2003; Horvath, Scheu, & DeShon, 2004; Jagacinski & Duda, 2001; Pintrich, Conley, & Kempler, 2003; VandeWalle, 1997). Issues of measurement specificity repeatedly have been raised as an important psychometric concern when developing a measure and have appeared in the literature from a variety of different perspectives, such as bandwidth-fidelity and frame-of-reference. Initially, Cronbach (1960; Cronbach & Gleser, 1965) introduced the concept of bandwidth-fidelity to psychometrics. Bandwidth refers to the complexity of information gained from a test, and fidelity refers to the quality of information (Hogan & Roberts, 1996). By using a broad bandwidth, a test
gathers copious information, but loses fidelity. Personality researchers in industrial and organizational psychology have debated the best way to resolve the bandwidth-fidelity debate. Ones and Viswesvaran (1996) argued that to best predict job performance, broad measures of personality, such as the Big Five personality constructs, should be used. Their rationale was that job performance is a complex, multidimensional criterion variable and thus required equally complex predictors. Matching a complex criterion with a complex predictor should yield optimal criterion-related validity. In contrast, others (Ashton, 1998; Van Iddekinge, Taylor, & Eidson, 2005) countered that narrow measures of personality constructs, such as integrity, were actually better predictors of job performance than broad measures.

In a closely related line of study to that of bandwidth-fidelity, researchers argued that frame-of-reference effects can impact criterion-related validity (Bing, Whanger, Davison, & VanHook, 2004; Holtz, Ployhart, & Dominguez, 2005; Hunthausen, Truxillo, Bauer, & Hammer, 2003; Mount, Barrick, & Strauss, 1994; Robie, Schmit, Ryan, & Zickar, 2000; Schmit, Ryan, Stierwalt, & Powell, 1995). Mount et al. were among the first to suggest that individuals may have different frame-of-references when answering personality items. Schmidt et al. elaborated on this, noting that job applicants could have different frame-of-references when answering personality inventories, such that some applicants describe their personality across domains (e.g., at work and at home), whereas some only describe their personality at work. This is problematic because respondents essentially are responding to different items, leading to increased measurement error and decreased validity (Bing et al., 2004). Thus, giving respondents a frame-of-reference by adding “at work” or a similar phrase to make the item context-specific could help improve the psychometric properties of the instrument.

Indeed, frame-of-reference studies have found that non-context-specific measures have more error variance than context-specific measures of personality (Robie et al., 2000). Moreover, context-specific measures of personality tend to have greater criterion-related validity (e.g., Bing et al., 2004; Schmit et al., 1995). For example, Hunthausen et al. (2003) found that Extraversion and Openness to Experience added incremental criterion-related validity over cognitive ability when measured with a context-specific measure but did not find incremental validity when using a non-context-specific measure.

Other researchers (Ajzen & Fishbein, 1977; Barrick & Mount, 2005; Dudley, Orvis, Lebiecki, & Cortina, 2006; Hogan & Holland, 2003; Hogan & Roberts, 1996; Jenkins & Griffith, 2004; Schneider, Hough, & Dunnette, 1996; Stewart, 1999; Tett, Steele, & Beauregard, 2003) believe that it is not as simple as concluding that one type of measure (e.g., narrow/specific vs. broad/general) will be universally better. Instead, they believe criterion-related validity is maximized by matching the predictor and criterion variables by level of specificity (narrow/specific vs. broad/general). Although the highest validity coefficients will be obtained when using narrow predictor and narrow criterion variables (Hogan & Roberts, 1996; Tett et al., 2003), broad predictors are still considered useful and appropriate when the criterion of interest is broad. Regarding this position, Stewart (1999) concluded that

traits should be congruent with the performance criterion that they are seeking to predict. When the criterion is dynamic, broad traits such as Conscientiousness may be appropriate because they exhibit robust relationships with the various behaviors that affect success. … Nevertheless, superior prediction can be made with narrow traits when their specific components theoretically align with critical performance behaviors. (p. 966)
SPECIFICITY OF MEASUREMENT AND ACHIEVEMENT GOALS

Using a context-specific measure may be especially important for constructs that vary across situations, such as motivation-related constructs. For example, self-efficacy is defined (Bandura, 1986) as a set of confidence-related beliefs that relate to a specific context. As such, measuring self-efficacy at the level of specificity that corresponds with the specific context and task being assessed (e.g., “I feel confident that I can solve math problems”) provides more predictive utility than assessing self-efficacy as a global trait (e.g., “I feel confident”; Bong, 2001; Choi, 2005; Finney & Schraw, 2003; Pajares, 1996; Pajares & Miller, 1995).

Although specificity of measurement may be an important measurement issue to consider when studying achievement goals as well, there has been limited discussion and agreement among achievement goal theorists regarding the level of specificity at which to best measure achievement goal constructs. As already previously highlighted, achievement goal researchers have assessed achievement goals at specific (e.g., Elliot & McGregor, 2001), midlevel (e.g., Vandewalle, 1997), and broad levels (Button et al., 1996), however, little research has been conducted to examine the implications of using achievement goal measures of varying specificity levels. The range of specificity that is found in measures of achievement goals could be one reason that achievement goals are inconsistently related to important attitudes and behaviors, like work performance (Yeo & Neal, 2004).

In a call to examine measurement specificity of motivational constructs, Wigfield (1997) argued that specificity of measurement may be an important factor to consider when measuring achievement goals. However, at that time, Wigfield noted that researchers considered achievement goals to represent a broad conceptualization of motivation. In contrast, Elliot (2005) noted that viewing achievement goals at a more general or dispositional level contradicts one of the reasons achievement goal theory was developed: to address the limitations of dispositional approaches to motivation, such as need for achievement theories (Pintrich & Schunk, 2002). Furthermore, the distinction between achievement goals and need for achievement (McClelland, 1985) is less clear when achievement goals are viewed as a disposition, and the discriminant validity between the two becomes compromised (Horvath et al., 2004). In addition to arguing for specific measures of goals, Elliot (2005) highlighted the importance of matching the specificity level of a predictor and criterion variable and noted that most achievement goal research attempts to predict specific outcomes in a given situation, meaning that predictive validity would be maximized when achievement goals were assessed at a specific level of measurement.

Finally, measurement specificity may also depend on the actual achievement goals being measured. In particular, Harackiewicz, F. J., Barron, and colleagues (Barron & Harackiewicz, 2003; Harackiewicz, F. J., Barron, Tauer, Carter, & Elliot, 2000; Harackiewicz, F. J., Barron, Tauer, & Elliot, 2002) suggested that the pursuit of mastery goals may be particularly context dependent, whereas the pursuit of performance goals may be more stable across contexts. Adoption of mastery goals stems out of a desire to develop one’s skills on a particular task and is likely to be dependent and fluctuate greatly on an individual’s initial interest for learning the task. In contrast, adoption of performance goals stems out of a desire to do well compared to others and is less contingent on the actual task. Thus, if employees and students strongly desire to do well compared to others in one specific situation, this desire may generalize to other contexts. Indeed, Harackiewicz, F. J., Barron, Tauer, et al. (2002) and Harackiewicz et al. (2000) found that students’ specific performance achievement goals for an introductory psychology class predicted not only students’ specific
grade in introductory psychology but also more general outcomes, such as cumulative grade point average (GPA) for the semester and grades in subsequent psychology courses. As a consequence, mastery and performance goals may be differentially affected by measurement specificity.

PURPOSE OF THE CURRENT RESEARCH

Although researchers have created measures of achievement goals at specific and general levels, little research to date has compared and contrasted the relative merits of using specific versus general measures of achievement goals. Initial work on domain specificity and achievement goals has been conducted by Horvath et al. (2004), but the researchers were unable to fully test the utility of matching specific versus general measures of achievement goals with specific versus general measures of performance outcomes. In this initial work only a general performance outcome was measured, and only a three-dimensional model of achievement goals was evaluated. Thus, the purpose of the current research was to investigate if measuring achievement goals and outcome variables at both specific and general levels of measurement affects criterion-related validity. We included four achievement goals, performance-approach, performance-avoidance, mastery-approach, and mastery-avoidance so that we could examine the predictive utility of mastery-avoidance in addition to the more traditional three-factor conceptualization of achievement goals.

We evaluated three primary hypotheses. Before examining differential predictive utility of the general and context-specific measures of goals, we first examined if the measures had differential measurement error (differential reliability). Previous research has suggested that non-context-specific measures have more error variance than context specific measures (e.g., Robie et al., 2000). Thus, we predicted the following:

H1: The context specific measure of goals will have higher reliability than the more general measure of achievement goals.

Next, we compared specific and general measures of achievement goals to specific and general measures of performance (e.g., grades for a specific course vs. semester GPA). The majority of specificity researchers (Hogan & Holland, 2003; Hogan & Roberts, 1996; Pajares, 1996; Schmidt et al., 1995; Schneider et al., 1996) have recommended and empirically supported the benefits of matching the specificity level of predictor and criterion variables. As such, we expected specific achievement goals to be more highly correlated with specific performance outcomes than general achievement goals. Likewise, we predicted general achievement goals to be more highly correlated with general performance outcomes than specific achievement goals. In other words, we predicted the following:

H2: Achievement goals and performance outcome variables matched on specificity level will have stronger relationships with one another than will achievement goals and performance outcome variables that are mismatched on specificity level.

In addition, rather than relying on one type of specific and general academic outcome (e.g., specific grade in a class vs. overall grades for a semester), we included a range of criteria assessed at specific and general levels. In particular, a number of researchers have made a call for including interest and value as important outcome measures in goal research, in addition to performance
outcomes (e.g., Barron & Harackiewicz, 2001; Harackiewicz, Barron, Tauer, et al., 2002; Harackiewicz et al., 2000; Hidi & Harackiewicz, 2000). We predicted the following:

H3: Achievement goals and interest-related outcome variables matched on specificity level will have stronger relationships with one another than will achievement goals and interest-related outcome variables that are mismatched on specificity level.

By incorporating specific and general measures of interest and value outcomes along with graded outcomes, we felt we would be in a much stronger position to evaluate whether a reliable pattern of convergent and discriminant validity for specific and general goal measures could be established. Furthermore, interest and value outcomes have been reliably linked to mastery goals in college student samples, whereas GPA outcomes have been reliably linked to performance-approach and performance-avoidance goals in college samples (see Harackiewicz, Barron, Pintrich, et al., 2002, for a review).

**METHOD**

**Participants**

Our sample consisted of 273 students from a Southern, midsized university. Sixty-four percent were female, and the majority of students were White. Students were recruited from an introductory psychology class and were compensated with extra credit.

**Measures**

*Achievement Goal Questionnaire (AGQ)–Specific*

The AGQ (Elliot & McGregor, 2001) is a 12-item instrument used to assess specific achievement goals in a particular academic context. Four achievement goals, commonly referred to as the $2 \times 2$ framework of achievement goals, are assessed by the AGQ: mastery-approach goals (e.g., “I want to learn as much as possible in this class”), mastery-avoidance goals (e.g., “I worry that I may not learn all that there is to learn in this class”), performance-approach goals (e.g., “It is important for me to do well compared to the other students in this class”), and performance-avoidance goals (e.g., “My fear of performance in this class is often what motivates me”). Students responded to each item using a 1 (*not at all true of me*) to 7 (*very true of me*) response scale, and then three items were averaged to obtain an overall score for each of the four subscales. Coefficient alpha for the four subscales indicated adequate internal consistency: Mastery-approach = .86, Mastery-avoidance = .83, Performance-approach = .94, and Performance-avoidance = .81.

*AGQ–General*

Finney, Pieper, and Barron (Finney et al., 2004) modified the original AGQ to be appropriate for use in a general academic domain. Rather than the items being written with a specific class referent (e.g., “in this class”), items were rewritten to reflect a general referent for all of the classes that a student was completing (e.g., “in my classes this semester”). The same response scale and
scoring format just outlined for the AGQ–Specific was used. Coefficient alpha for the subscales indicated adequate internal consistency: Mastery-approach = .81, Mastery-avoidance = .81, Performance-approach = .93, and Performance-avoidance = .81.

**Graded Performance**

Final grades for students’ introductory psychology course were assigned using a letter scale of A, A–, B+, B, B–, C+, C, C–, D, or F. Letter grades were then converted into a 0.0 to 4.0 scale, using the university formula of $A = 4.0$, $A– = 3.7$, $B+ = 3.3$, $B = 3.0$, $B– = 2.7$, $C+ = 2.3$, $C = 2.0$, $C– = 1.7$, $D = 1.0$, $F = 0.0$. Cumulative GPA for the semester was also collected and was based on the typical 0.0 to 4.0 grading scale. We then used final grades for the psychology course as our specific performance outcome and semester GPA as our general performance outcome.

**Interest and value.** We measured students’ interest in what they were learning at a specific (e.g., “I’m really excited about psychology”) and general level (e.g., “In general, I’m really excited about my courses”), and we measured students’ perceived value for what they were learning at a specific (e.g., “I think what I am learning in this course is important”) and general level (e.g., “I think what I am learning in my courses this semester is important”). Interest and value measures were adapted from research by Harackiewicz et al. (2000). Our interest measure represents an affective appraisal of students’ classroom experiences, whereas our value measure represents a cognitive appraisal. Theorists have argued that both are needed to develop an enduring interest in a topic or domain (Hidi & Renniger, 2006). Students responded to each item using a 1 (strongly disagree) to 7 (strongly agree) response scale, with four items being averaged to obtain a student’s overall score for each of the interest and value subscales. Coefficient alpha indicated adequate internal consistency: Specific Interest = .91, General Interest = .87, Specific Value = .92, and General Value = .90.

**Procedure**

Both specific and general measures of achievement goals were collected 1 month into the semester. Surveys were counterbalanced such that half of the sample completed the specific AGQ first and the general AGQ second, whereas the other half of the sample completed the general AGQ first and the specific AGQ second. At the end of the semester, measures of students’ specific and general interest and value for their college coursework were collected, and students’ specific grade in introductory psychology and overall GPA for the semester were obtained after the semester.

**RESULTS**

To evaluate our first hypothesis to test the differential reliability between specific and more general measures of achievement goals, we conducted Felt’s test of the equality of dependent Cronbach coefficient alpha values (Felt, 1980; Feldt & Ankenman, 1999). We found that none of the reliabilities from corresponding measures (e.g., specific vs. general mastery-approach, specific vs. general performance-approach) were statistically significantly different ($p > .01$). This is not surprising given that there is little or no practical difference in the Cronbach coefficient alpha values across specificity condition. Thus, contrary to prediction, the measurement error associ-
ated with the context-specific measure was not less than the measurement error associated with the more general measure.

To evaluate our second and third hypotheses, we conducted a series of correlation and regression analyses. We initially inspected the pattern of zero-order correlations between achievement goals and outcomes to assess whether predictive validity is maximized when the specificity level of predictor and outcome criteria are matched (see Table 1). We also conducted formal significance tests using Steiger’s (1980) $z$ test for dependent correlations to determine if the correlations between matched goals and outcomes were statistically significantly higher than correlations between mismatched goals and outcomes. Due to the multiple $z$ tests, we used an alpha level of .001.

For graded performance outcomes, specific performance-avoidance goals appeared to be best predictor of both specific class grades ($r = -.20$) and general class grades ($r = -.16$). However, specific performance-avoidance goals were not a significantly better predictor of specific class grades than general performance-avoidance goals ($r = -.16$), $z = 1.42$, $p > .001$, and specific performance-avoidance goals were not a significantly better predictor of general grades than general performance-avoidance goals ($r = -.12$), $z = 1.42$, $p > .001$. In fact, none of the comparisons of general versus specific mastery-approach, mastery-avoidance, or performance-approach goals yielded significant differences. Thus, we found no support for H2, that matching specificity of goals with specificity of performance outcomes improved criterion-related validity.

In contrast, for interest outcomes, the best predictor of specific interest was specific mastery-approach goals ($r = .45$), which was a significantly better predictor than general mastery-approach goals ($r = .15$), $z = 5.76$, $p < .001$. However, even though the best predictor of general interest appeared to be general mastery-approach goals ($r = .27$), general mastery-approach was not a

### TABLE 1
Zero-Order Correlations Among General and Specific Achievement Goals and General and Specific Outcomes

<table>
<thead>
<tr>
<th>Goal Type</th>
<th>M</th>
<th>SD</th>
<th>1</th>
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<th>5</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 GMAP</td>
<td>5.63</td>
<td>0.99</td>
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<tr>
<td>2 GMAV</td>
<td>4.31</td>
<td>1.31</td>
<td>0.22</td>
<td>—</td>
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<tr>
<td>3 GPAP</td>
<td>5.05</td>
<td>1.49</td>
<td>0.11</td>
<td>0.25</td>
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<td>4 GPAV</td>
<td>4.50</td>
<td>1.58</td>
<td>0.03</td>
<td>0.41</td>
<td>0.54</td>
<td>—</td>
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<tr>
<td>5 SMAP</td>
<td>5.29</td>
<td>1.24</td>
<td>0.58</td>
<td>0.12</td>
<td>0.03</td>
<td>-0.07</td>
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<tr>
<td>6 SMAV</td>
<td>3.96</td>
<td>1.40</td>
<td>0.12</td>
<td>0.72</td>
<td>0.14</td>
<td>0.28</td>
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<tr>
<td>7 SPAP</td>
<td>5.03</td>
<td>1.51</td>
<td>0.13</td>
<td>0.21</td>
<td>0.89</td>
<td>0.48</td>
<td>0.12</td>
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<tr>
<td>8 SPAV</td>
<td>4.42</td>
<td>1.59</td>
<td>-0.01</td>
<td>0.37</td>
<td>0.50</td>
<td>0.89</td>
<td>-0.03</td>
<td>0.30</td>
<td>0.51</td>
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<tr>
<td>9 G Grade</td>
<td>3.06</td>
<td>0.54</td>
<td>0.02</td>
<td>-0.10</td>
<td>0.05</td>
<td>-0.12</td>
<td>-0.01</td>
<td>-0.13</td>
<td>0.04</td>
<td>-0.16</td>
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<tr>
<td>10 S Grade</td>
<td>3.07</td>
<td>0.72</td>
<td>-0.02</td>
<td>-0.12</td>
<td>0.03</td>
<td>-0.16</td>
<td>0.05</td>
<td>-0.15</td>
<td>0.06</td>
<td>-0.20</td>
<td>0.79</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>11 G Interest</td>
<td>4.67</td>
<td>1.06</td>
<td>0.27</td>
<td>0.01</td>
<td>0.00</td>
<td>-0.08</td>
<td>0.20</td>
<td>0.02</td>
<td>0.01</td>
<td>-0.11</td>
<td>0.30</td>
<td>0.19</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>12 S Interest</td>
<td>4.86</td>
<td>1.38</td>
<td>0.15</td>
<td>-0.04</td>
<td>-0.11</td>
<td>-0.18</td>
<td>0.45</td>
<td>0.07</td>
<td>-0.03</td>
<td>-0.21</td>
<td>0.25</td>
<td>0.38</td>
<td>0.30</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>13 G Value</td>
<td>4.91</td>
<td>1.05</td>
<td>0.25</td>
<td>0.05</td>
<td>0.01</td>
<td>-0.10</td>
<td>0.16</td>
<td>0.01</td>
<td>0.02</td>
<td>-0.11</td>
<td>0.27</td>
<td>0.15</td>
<td>0.80</td>
<td>0.23</td>
<td>—</td>
</tr>
<tr>
<td>14 S Value</td>
<td>4.88</td>
<td>1.24</td>
<td>0.21</td>
<td>-0.02</td>
<td>-0.10</td>
<td>-0.18</td>
<td>0.45</td>
<td>0.06</td>
<td>-0.03</td>
<td>-0.20</td>
<td>0.22</td>
<td>0.32</td>
<td>0.36</td>
<td>0.84</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Note. $N = 273$. GMAP = general mastery-approach goals; GMAV = general mastery-avoidance goals; GPAP = general performance-approach goals; GPAV = general performance-avoidance goals; SMAP = specific mastery-approach goals; SMAV = specific mastery-avoidance goals; SPAP = specific performance-approach goals; SPAV = specific performance-avoidance goals; G Grade = general grade point average (i.e., semester grade point average); S Grade = specific grade (aka, final grade in specific course); G Interest = General interest in college courses; S Interest = Specific interest in psychology course, G Value = General value, S Value = Specific value.
significantly better predictor of general interest than specific mastery-approach \((r = .20), z = 1.30, p > .001\). None of the comparisons of general versus specific mastery-avoidance, performance-approach, or performance-avoidance goals yielded significant differences for specific or general value. Thus, only partial support for H3 was found, that matching specificity of goals with specificity of interest outcomes does improve criterion-related validity when the outcome is assessed at a specific level.

Similarly, the best predictor of specific value was specific mastery-approach goals \((r = .45)\), which was a significantly better predictor than the strongest general predictor of specific value, general mastery-approach \((r = .21), z = 4.66, p < .001\). However, once again although it appeared that the best predictor of general value was general mastery-approach \((r = .25)\), general mastery-approach was not a significantly better predictor of general value than specific mastery-approach \((r = .16), z = 1.66, p > .001\). None of the comparisons of general versus specific mastery-avoidance, performance-approach, or performance-avoidance goals yielded significant differences for specific or general value. Thus, once again, only partial support for H3 was found.

In sum, visual inspection of zero-order correlations in Table 1 may lead some to believe that the highest correlation does occur when specificity is matched for five of the six possible goal and outcome pairs. However, this conclusion is tempered with formal \(z\) tests, revealing statistically significant higher correlations due to specificity matching for only two of the six goal and outcome pairs. Of interest, in both cases, mastery-approach goals were involved (i.e., specific interest with specific mastery approach and specific value with specific mastery approach).

We next conducted a series of regressions. Analyses of zero-order correlations fail to take into account and control for an individual’s adoption of other achievement goals, however regression simultaneously analyzes how all four goals combine to predict a given outcome (Barron & Harackiewicz, 2001). Specifically, we ran six regression models in which we entered the four specific achievement goal measures to predict each of our six outcomes, then we ran six regressions in which we entered the four specific achievement goal measures to predict our six outcomes. Table 2 summarizes the results for the four regression analyses using specific or general goals to predict specific and general graded performance outcomes. For each of these comparisons, the difference between the dependent multiple correlations was tested for statistical significance (Steiger, 1980; Steiger & Browne, 1984). Inspection of the \(R^2\) values did not reveal practically or significantly different \(R^2\) values when using specific goals \((R^2 = .09)\) versus general goals \((R^2 = .05)\) to predict specific performance or when using specific goals \((R^2 = .05)\) versus general goals \((R^2 = .04)\) to predict general performance. This is not surprising given the similarity in slope values associated with the specific and general goals (specific performance-approach goals slope vs. general performance-approach goals slope) for each performance outcome.

Table 3 summarizes the results for eight regression analyses using specific or general goals to predict specific and general interest and value outcomes. Matching specific goals with specific interest in psychology resulted in practically and significantly \((z = 5.47, p < .001)\) more variance explained \((R^2 = .24)\) than using general goals to predict specific interest \((R^2 = .06)\). In particular, specific mastery-approach goals had a much higher slope \(.44\) than general mastery-approach goals \(.15\); all the other goals had approximately the same slope values across specificity condition. However, matching general goals with general interest in psychology did not result in practically or significantly \((z = 1.05, p > .05)\) more variance explained \((R^2 = .08)\) than using specific goals to predict general interest \((R^2 = .06)\).
Similarly, matching specific goals with specific value resulted in practically and significantly ($z = 4.60, p < .001$) more variance explained ($R^2 = .24$) than using general goals to predict specific value ($R^2 = .08$). Again, specific mastery-approach goals (.45) had greater predictive utility than general mastery-approach goals (.21), whereas the other goals had similar slopes across specificity condition. Matching general goals with general value did not result in practically or significantly ($z = 1.64, p > .05$) more variance explained ($R^2 = .08$) than using specific goals to predict general value ($R^2 = .04$). So, like the comparisons of zero-order correlations, no support for H2 was obtained when evaluating goals simultaneously with regression and only partial support for H3 was obtained when evaluating goals simultaneously.

### DISCUSSION

The current research was conducted to examine if matching achievement goals and outcome variables on levels of measurement specificity would yield optimal criterion-related validity. We predicted that measuring achievement goals at a more situationally specific level would yield optimal criterion-related validity when matched with situationally specific criterion measures. Also, we predicted that general measures of achievement goals would be the best predictors of general cri-
Thus we expected that the highest validity coefficients would occur when there was a match between the specificity level of the predictor and criterion variables, whereas a mismatch of predictors and criterion variables would lead to lower relationships.

A number of important findings emerged from the current study. First, prior to examining differences in predictive utility, the reliability of the context-specific and general measures were compared. Contrary to previous findings, there was not significantly more measurement error associated with the general measure. This lack of difference in reliability made examination of predictive utility much easier. That is, the correlations between the external criteria (grades, interest, value) and the goal measures were not differentially attenuated due to measurement error.

Second, matching the level of specificity did not affect criterion-related validity when examining specific grades and general grades. When examining specific interest and specific value, however, the specific measure of mastery-approach goals was more predictive than the general measure. Thus, we found that matching specific goals with a specific measure of interest and specific measure of value resulted in more variance explained than when using general goals and this difference in predictive utility was attributed mainly to the difference between specific and general mastery-approach goals. Of interest, general goals were not better predictors of general measures of interest and value than specific goals.

### TABLE 3

Summary of Multiple Regression Analyses Predicting Specific and General Interest and Value Using Specific and General Goals

<table>
<thead>
<tr>
<th>Model Evaluated</th>
<th>Interest</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2$</td>
<td>Beta ($\beta$)</td>
</tr>
<tr>
<td>Specific criterion predicted by specific goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAP</td>
<td>.24</td>
<td>.03</td>
</tr>
<tr>
<td>SPAV</td>
<td>-.21*</td>
<td>.04</td>
</tr>
<tr>
<td>SMAP</td>
<td>.44*</td>
<td>.18</td>
</tr>
<tr>
<td>SMAV</td>
<td>-.01</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Specific criterion predicted by general goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPAP</td>
<td>.06</td>
<td>-.05</td>
</tr>
<tr>
<td>GPAV</td>
<td>-.16*</td>
<td>.01</td>
</tr>
<tr>
<td>GMAP</td>
<td>.15*</td>
<td>.02</td>
</tr>
<tr>
<td>GMAV</td>
<td>-.01</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>General criterion predicted by specific goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAP</td>
<td>.06</td>
<td>.06</td>
</tr>
<tr>
<td>SPAV</td>
<td>-.13</td>
<td>.01</td>
</tr>
<tr>
<td>SMAP</td>
<td>.19*</td>
<td>.03</td>
</tr>
<tr>
<td>SMAV</td>
<td>-.01</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>General criterion predicted by general goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPAP</td>
<td>.08</td>
<td>.03</td>
</tr>
<tr>
<td>GPAV</td>
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</tr>
<tr>
<td>GMAP</td>
<td>.28*</td>
<td>.07</td>
</tr>
<tr>
<td>GMAV</td>
<td>-.03</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>

*Note. $sr^2$ = squared semi-partial correlation; SPAP = specific performance-approach goals; SPAV = specific performance-avoidance goals; SMAP = specific mastery-approach goals; SMAV = specific mastery-avoidance goals; GPAP = general performance approach goals; GPAV = general performance-avoidance goals; GMAP = general mastery-approach goals; GMAV = general mastery-avoidance goals.

*p < .05.
In sum, our hypotheses, stating that optimal criterion-validity would be found when matching the specificity level of achievement goals and outcomes, were far from being universally supported across our three outcomes. Thus, it appears as though research in the personality domain, which suggests that specific predictors should be used to measure specific outcomes (e.g., Hogan & Roberts, 1996) and general predictors should be used to measure general outcomes (e.g., Ajzen & Fishbein, 1977; Ones & Viswesvaran, 1996), may not be appropriate guidelines for researchers who are interested in measuring achievement goals. Instead, our results suggest that specific measures of achievement goals yielded optimal criterion-related validity with only specific outcomes. Our results also suggest that specific achievement goals are not significantly worse predictors than general achievement goals when outcomes were general, thus either could be used with general outcomes.

Although our expectation that predictors and criteria matched on specificity level would result in optimum predictive utility was not fully supported when predicting grades, it is important to note that the overall variance explained in graded performance outcomes was small, which has been found in other studies examining the relationship between achievement goals and grades (Payne et al., 2007). We had hoped that some of the ambiguity and small effect sizes found in prior research involving the relationship between achievement goals and graded performance would be clarified by taking into account the level of measurement specificity, and we hypothesized that measurement specificity of predictor and criterion variables may prove to be an important moderator variable explaining the attenuation of the relationship between goals and performance outcomes. This was not the case. It is interesting to note that our failure to find support for H2 using graded performance criteria may be explained by the fact that specific and general performance goal measures were highly correlated ($r = .89$). Recall that performance goals have been consistently related to performance outcomes in college classes (for a review, see Harackiewicz, Barron, Pintrich, et al., 2002). However, if specific and general performance goals are highly correlated, we wouldn’t be surprised that both relate to the criterion approximately equally, as was found in the current study with performance goals. In contrast, although specific and general mastery goals were less related ($r = .58$), they tend to be weakly related to graded performance (see Harackiewicz, Barron, Tauer, et al., 2002). As such, graded performance has limited utility assessing differential relationships with general and specific measures of mastery goals. Given these patterns of relationships, it is not surprising that specificity of measurement did not moderate the relationship between goals and performance outcomes.

Although the current study did not find achievement goals to be a strong predictor of graded performance outcomes, we did find achievement goals to be a strong predictor of interest and value outcomes. In line with the current study’s findings, other research also has shown achievement goals to be an inconsistent predictor of performance (Yeo & Neal, 2004), but to be strong predictors of other important work-related and educational outcome variables, such as self-efficacy, feedback seeking, team behavior, learning strategies, persistence, cross-cultural adjustment, and success in training programs (e.g., Dragoni, 2005; Elliott & Dweck, 1988; Nolen, 1988; Phillips & Gully, 1997; Porath & Bateman, 2006; C. O. L. H. Porter, 2005; G. Porter & Tansky, 1999; VandeWalle et al., 2001; VandeWalle & Cummings, 1997). Thus, researchers need to be thoughtful in what criteria are (or are not) selected in achievement goal research in order to provide the clearest evaluation of particular issues still remaining to be resolved (cf. Barron & Harackiewicz, 2001). If we had only evaluated graded performance outcomes, we may have been quick to conclude that matching the level of specificity of achievement goal predictors and criteria is not a critical measurement issue.
Limitations

One potential limitation of the current study involves the timing of when specific and general measures were collected. By having participants fill out specific and general measures of goals in the same setting, this may have led to an additional measurement confound. Specifically, participants may have been more prone to respond similarly across measures because the measures were completed so closely in time, potentially resulting in response acquiescence and artificially inflating how similar their specific and general goals were. Future research could explore additional assessments that continue to vary the timing of when specific and general goal measures are collected.

Another potential limitation of the current research is that we did not collect a broad, general measure of achievement goals or include more global outcomes measures (e.g., overall cumulative performance in school and overall interest and value in learning). Instead, our investigation on measurement specificity was limited to a comparison between using a specific measure of achievement goals for a particular class, and a midlevel measure of achievement goals for the upcoming academic semester. We believe that this factor may have actually led to a stronger test of our hypotheses than if we had used an even more general measure of achievement goals. Specifically, using an even more general measure of achievement goals would allow for more ambiguity as participants are reading the items, which could decrease validity. As such, we suspect that, based on our pattern of findings from the current study, using a general measure of achievement goals (e.g., Button et al., 1996) would lead to more decreases in criterion-related validity, especially for mastery achievement goals and the outcomes they typically predict, such as interest. This would be another area for future research.

Implications and Conclusion

Achievement goal theorists have remained mixed in their beliefs about the stability of achievement goals. As DeShon and Gillespie (2005) noted, “there is substantial conceptual disagreement on the stability of goal orientation across situations, domains, and time” (p. 1103).

Early achievement goal theorists stated that achievement goals had both situational and dispositional characteristics (Dweck & Leggett, 1988); however, more recent theorists have started to endorse either a more situational perspective (e.g., Elliot, 2005) or a more dispositional perspective (e.g., VandeWalle, 1997). If achievement goals are not stable and are highly dependent on specific contexts, then achievement goals may be best assessed by maximizing fidelity at the cost of minimizing bandwidth by measuring them at a very specific level. However, if achievement goals are fairly stable, then they could be assessed at a general level so that bandwidth was maximized, although some fidelity would be lost.

By continuing to recognize and test measurement specificity issues in future research, achievement goal researchers will come closer to identifying when specific achievement goals are most beneficial. Currently, researchers disagree on the type of achievement goals to encourage at work with some researchers promoting mastery goals (VandeWalle & Cummings, 1997), some promoting both mastery and performance goals (Barron & Harackiewicz, 2001), and some promoting the adoption of goals that best aligns with the organization’s strategy (DeShon & Gillespie, 2005). By considering measurement specificity, we may be able to better identify relationships between achievement goals and outcome variables and ultimately agree on the types of goals to encourage at work.
Although testing the stability of achievement goals was beyond the scope of the current study, our findings indicate that some achievement goals do appear to be influenced by context, which was shown by the loss of validity we encountered when using general measures of mastery achievement goals as predictors of interest and value outcomes. That is, our finding that specific mastery goals were better predictors than general mastery goals, and that this pattern was not replicated with performance goals, demonstrates that mastery goals may be more context dependent than performance goals, as suggested by Harackiewicz and colleagues (see Harackiewicz et al., 2000). Thus, individuals may experience more fluctuations in mastery-approach and mastery-avoidance goals across contexts. For example, individuals who are concerned with mastering material directly related to their job tasks may not be concerned with learning material in a training seminar about employee benefits. The decision to pursue a mastery goal in a particular context may particularly depend on whether an individual is interested in what they are learning. In contrast, individuals who espouse performance goals may be concerned with how they compare to others regardless of their situation. For example, individuals who focus energy on being the best employees may also be concerned with winning extracurricular activities, such as rounds of golf.

Thus, organizations may find it more difficult to lower performance goals of employees than to increase their mastery goals, which may be an important consideration when determining how to most effectively motivate workers. As such, it may be that performance goals are better utilized during the selection process, and may be particularly important to identify in jobs where comparing oneself to others and being competitive is especially important. On the other hand, mastery goals may be more important to consider during human resource development initiatives. As such, similar to the way in which signature strengths (e.g., love of learning, fairness) are beginning to be used more in the workplace (Buckingham & Clifton, 2001), assessing employees mastery goals for different tasks at work may provide human resource practitioners with valuable information regarding individual employee interests at work.

In sum, when reflecting on specificity of measurement issues in achievement goal research, using matched, specific measures may yield higher criterion validities than using matched, general measures (as our research and the research of others have found) when looking at mastery goals. Because many achievement goal researchers are interested in examining achievement goals and the behaviors, cognitions, and affect found in particular situations (Elliot, 2005), using specific measures of achievement goals will maximize the likelihood of finding relationships with criteria in specific situations, especially for mastery goals. Of interest, this was not the case for performance goals. Therefore, our results confirm the findings of various researchers who have examined specificity of measurement issues (e.g., Bing et al., 2004; Mount et al., 1994) and suggest that using specific measures of mastery goals may generally be preferred over general measures, but also show that measures of performance goals may be more robust to measurement specificity issues.

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REFERENCES


