Evaluating Personality Traits as a Predictor of Undergraduate Goal Setting

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Abstract

Although the importance of goal setting for students is well established in the literature and the utility of personality as reliable antecedents of different outcomes is similarly well established, there are a limited number of studies that analyze the relationship between these two sets of variables, particularly within learning environments. The current study is intended to contribute to this area by analyzing goal setting and personality in undergraduate students enrolled in a leadership development course. Incorporating differences among individuals, which includes differences in personality to predict goal setting, will aid educators in recognizing links between persons of similar, or differing, personalities. The results of the study indicate that of the Big Five personality factors (Openness, Conscientiousness, Extraversion, Agreeableness, Emotional Stability), the factors of Agreeableness and Conscientiousness were related to student project level and class level goals. However, when regressed simultaneously, only Agreeableness was a statistically significant predictor of goals.

Keywords: undergraduate education; goal setting; personality

Introduction

One of the primary and persistent concerns for educators is how to engage learners, and in particular, how to get learners to direct their learning process in a self-managed way (McKeachie & Svinicki, 2013). This is especially critical when we recognize that self-identified goals tend to be more important for learners and that individuals will persist more in pursuit of such goals, as opposed to goals set by someone else (e.g. Ryan & Deci, 2000). However, goal setting, persistence, and achievement is not limited to educational settings, every step of the human life requires that people set goals and act accordingly in order to achieve them. Meeting goals is highly dependent on the content of these goals, and how one chooses to *self*-regulate these goal-oriented actions (Gollwitzer & Moskowitz, 1996). The term self-regulate can be defined as altering one's responses (actions) in order to align with set standards (Fiske, Gilbert, & Lindzey, 2010). Consequently, it is important for educators to acknowledge the *self*-element of actions and the performance of personality influencing one to select, regulate, and meet identified goals.

Understanding of personality has been sought for eons. The investigation about the cogency of personality scales as predictors for self-selections is not a new area of study (Barrick &

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Mount, 1991). Theories referencing understanding of one's self, which trace back to Plato and Aristotle, describe a driving force different from that of other species. The human race is compelled by emotion and personality-based perspectives that ultimately influence our decisions. Through rationalist theories, scholars and experts have created models to direct proper leadership, goal setting, and motivation strategies. Therefore, scholars set goals to emphasize cognition and rationality (Muchinsky, 2000) while minimizing the influences caused by emotion driven behaviors (Ashforth & Humphrey, 1995). Therefore, the search for knowledge must be done in a self-regulated environment to ensure the attained goals are not influences through personal bias.

The relationship between goal setting processes and personality poses a significant area for study and further insight. Discriminately, it is clear that external factors and constraints (i.e., social and organization factors) shape goal setting. Further, it is also significant to recognize the factors and constraints that originate from internal sources, which includes personality (Lord, Diefendorff, Schmidt, & Hall, 2010). In recent times, the validity of personality as a predictor for goal setting and performance has been found to be classified as low. Research has suggested that the absence of a well-organized taxonomy for recognizing different personality traits is a possible reason for the low concrete evidence to establish a relationship between personality and performance (Barrick & Mount, 1991).

Although the importance of goal setting for students is well established in the literature (e.g. Schunk & Zimmerman, 2007), and the utility of personality as reliable antecedents of different outcomes (e.g. Barrick & Mount, 1991) is similarly well established, there are a limited number of studies that analyze the relationship between these two sets of variables, particularly within learning environments. Research priority area four of the National Research Agenda specifically identifies the need for meaningful, engaged learning in all environments (Roberts, Harder, & Brashears, 2016). The current study is intended to contribute to this area by analyzing goal setting and personality in undergraduate students enrolled in a leadership development course. Incorporating differences among individuals, which includes differences in personality to predict goal setting, will aid educators in recognizing links between persons of similar, or differing personalities.

Theoretical Framework

The theoretical framework guiding this investigation was based on the Five Factor Theory of Personality, and further mitigated through goal setting strategies. The effects of personality factors predicting goal selection in undergraduate leadership students will frame the contextual nature of this study. Understanding the roles of the factors and their impacts is imperative to further, understand how individuals view the *self*-element towards action, and performance.

The Five-Factor Model of Personality

The five-factor model has gained much recognition as a classification system for the plethora of traits that characterize individuals of the human race. The five-factor model can at times be mistaken as a limited, five-word list to describe a seemingly endless list of personality traits. However, the purpose of the model serves to create structure, and rather to be used as an organized inventory to the more than 15,000 personality-trait adjectives that make up the English language (Goldberg, 1990). Though the model is versatile in its utility for studies, it not yet a universally accepted model for personality classification (e.g. Eysenck, 1992). Still, the model is a generally accepted and utilized reference tool for personality classification and scaling (Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough, 2006).

The five-factor model is comprised of the following factors: agreeableness, conscientiousness, extraversion, openness, and neuroticism. Costa and McCrae (1992) provided a description of each of these personality factors, which is referenced in this study. Openness is characterized by inventiveness, creativity, and curiosity and is often the most difficult to recognize (Barrick & Mount, 1991). Conscientiousness describes a balance between dependability and persevering qualities (i.e. hardworking and achievement oriented) (Barrick & Mount, 1991). Surgency is frequently used to describe extraversion and personality elements including activeness, talkativeness, and assertiveness (Barrick & Mount, 1991). Agreeableness is explained through trust, cooperativeness, and good-naturedness mixed with compliance, tolerance and friendliness (Judge & Bono, 2000; Barrick & Mount, 1991). Anxiousness, anger, and insecurity characterize personality factor neuroticism and is the opposite of the emotional stability (Barrick & Mount, 1991). In this study neuroticism is scored through the opposite emotional stability scale.

McCrae and Costa (1991) found that individuals with high scores on measures of neuroticism lacked self-esteem and self-confidence. Individuals with high levels of surgency have been related to those who emerge as leaders in groups (Watson & Clark, 1997). Furthermore, individuals associate conscientiousness as a trait, respected as a leader who exhibits positive job performance (Barrick & Mount, 1991). Conversely, individuals who display openness contain divergent thinking capacity (McCrae, 1987), and may not be viewed as conventional in their leadership role but their creativity may allow change to occur when conscientious personalities would continue with a status quo schedule. Individuals who hold agreeableness as a trait are often described as generous and concerned for others (Judge & Bono, 2000). All of the big five personalities hold qualities which are differentiated between each other. To some extent, many individuals exhibit levels of each with some being more dominant in their individual personality characteristics. When evaluating female leaders in academia, researchers found that they held personality traits such as agreeableness, surgency, and conscientiousness, (Kleihauer, Stephens, Hart, and Stripling, 2013). The personality trait exhibited will influence how individuals work to define and set goals than in what manner they are attained. It is important to understand that when discussions are being held, if they are tuned towards individuals' personality(ies), engagement is more readily held even when the content is not consistent with their perspective (Lamm, Carter, Stedman, & Lamm, 2014).

Goal Setting and Goal Selection

It is important that individuals have goals and determine processes to attain set goals. Goal setting and goal selection comprises a set of "processes involved in attaining and maintaining (i.e., keeping regular) goals, where goals are internally represented (i.e., within the self) desired states" (Vancouver & Day 2005, p. 158). When goals are internally represented, individuals are able to think through the process of goal attainment. The ideas that essentially center on goal setting are that people set goals, track their progress with said goals, and accordingly adjust their behaviors (Karoly, 1993). Thereby, when goals are processed by the individual towards attainment or not being attained, adjustments are made.

We can think of goal setting almost as an input-output system, whereby the relationship between an input, reference goal, comparable progress, and output all interdependently play during the processes of goal setting (Carver & Scheier, 1998). These variables are influenced and controlled by *self*. Individuals choose to change behaviors as output variables if negative feedback shows a discrepancy between set goals and progress (Lord et al., 2010). This process should be ongoing and adjustments made when necessary.

When conceptualizing goal setting, the general approach assumes an additional "hierarchal structure" which is framed by short-term goals, lower-level concrete goals, long-term goals, and higher-level abstract goals (Lord et al., 2010). This structure allows individuals to process less information towards whether they have attained, not attained or are in-progress towards a goal. Furthermore, lower-level goals are assumed as the foundation to which higher-level goals are reached (Lord & Levy, 1994). When individuals set different levels of goals, it is easier for them to process "small" steps in the process of long-range goal attainment. This is essentially the "structure" behind the model of goal setting and selection versus the content of the goal or its proceeding behavior (Diefendorff & Lord, 2008).

Personality as a Predictor for Goal Setting and Selection

The study of goal setting and selection is of special interest to researchers especially in the professional work environment. When thinking about goal setting, it is not particularly the goal itself researchers are focused on, but the *process* in which individuals come to selecting goals, and accordingly adjusting behaviors to reach them.

When conceptualizing goal setting and personality collectively, a significant process in goal setting includes the internationalization of set goals towards ones' self. This process can span from a single goal to a multitude of goals at the same time (Schmidt & DeShon, 2007). This internalization to self induces a set of emotional and behavioral processes. Because performance is heavily dependent on conscious and cognitive processes (Newell, 1990), personality psychology provides researchers a foundation to better understand the kinetics behind goal setting and selection systems and their development from a more intrapersonal process (Lord et al., 2010). Thus, the effects of personality towards goal setting and attainment are interdependent on the individual.

As mentioned, the self and goal setting share a rich connection. From literature, the network of structures in the brain allow for introspection (Raichle, MacLeod, Snyder, Powers, Gusnard, & Schulman, 2001), in which people are directed by factors including personality to act accordingly. Furthermore, personality creates an identity for individuals. People build on existing identities and create new ones based on different situations. Thus, all individuals are different based on their prior experiences. Given the example of a leader whose sense of self requires a long period to develop (Day, Harrison, & Halpin, 2009), his or her identity dates back to grade school (Komives, Owen, Longerbeam, Mainella, & Osteen, 2005). A leader's identity thus motivates decisions and goal setting activities in order to empower others. The leadership students studied in this article are shaped by their identities, which are predicted to be influenced by personality factors.

Research has demonstrated the development of self to be activated by various social relationships (Andersen & Chen, 2002). When given an example such as understanding undergraduate leadership students, their peer, professor, supervisor, and personal relationships induce self-identities along with the influence of personality. Accordingly, it is important to realize the effect of both individual and social processes driving the development of one's self to set and select goals (Lord et al., 2010).

Furthermore, it is essential to note that processes in goal setting involve time perspectives - both near self-construal (i.e., "me tomorrow") and distant self-construal (i.e., "me in a year") (Lord et al., 2010). Depending on the personality type held, some individuals are better situated to process or feasibly construct short-term goals or conversely long-term goals. Distant self-construal has been closely linked to a stable personality set than near self-construal (Lord et al., 2010). Thus, the effect on individuals' perspectives on time - whether long or short term - must be factored into the relationship in order to investigate personality and goal selection appropriately. Additionally,

through correlational analyses, significant relationships between age and personality factors has been found (McElravy & Hastings, 2014).

Barrick and Mount (1991) provided an investigation that emphasizes the relationship between personality and job performance, which sets potential for a proxy study of personality and goal selection and setting. Results indicated a consistent correlation between conscientiousness as a valid predictor for job performance. Further, extraversion and agreeableness also exhibited a correlation with job performance though lower than that of conscientiousness. The results described very little support for emotional stability as a predictor for job performance and the values for openness showed little to no relation in regards to job performance (Barrick & Mount, 1991).

Purpose and Research Objectives

The purpose of this study was to examine how undergraduate agricultural leadership students' personality predicted their goal orientation. The study was driven by the following research objectives:
1. Describe the personality characteristics of undergraduate agricultural leadership students in a group and team course using the five-factor model of personality.
2. Describe the goal setting characteristics of undergraduate agricultural leadership students in a group and team course.
3. Identify the relationship between personality and goal setting in undergraduate agricultural leadership students in a group and team course.
4. Identify how personality predicts goal setting in undergraduate agricultural leadership students in a group and team course.

Methods

The population for this study was undergraduate agricultural leadership students. A descriptive and correlational research design was employed to address the research objectives. A census of three classes of undergraduate agricultural leadership students from a single course taught over multiple semesters in a single southern land grant university was included in the study. The course was an upper level offering directed at group and team leadership. Data were collected in the spring of 2013 (n = 32), the spring of 2014 (n = 44), and the spring of 2015 (n = 40). A total of 116 responses were obtained and represented a 97% response rate. Respondents received no compensation or course credit for participating in the study. The data analyzed in the present study capitalize on data collected in the Lamm, Sheikh, Carter, and Lamm (2017) sample. The current study extends on the results of the previous study in two important ways. First, the previous study included multiple courses for personality analysis, including an introductory leadership course. The current study provides a more discrete view of personality trends within a specific leadership class directed more towards upper-level underclassmen taught over the course of three semesters. Secondly, the variable of interest in the current study is student goal setting, with personality used as an antecedent predictor of students' self-determined grade goals. These disclosures are presented based on recommendations within the literature for clarity (Kirkman & Chen, 2011).

Demographic data were obtained through respondent self-report. The sample was 33% (n = 38) male and 67% (n = 77) female. Respondents represented all undergraduate classifications within the university, 0.9% (n = 1) freshman, 6.1% (n = 7) sophomore, 35.7% (n = 41) junior, 57.4% (n = 66) senior. Participant race and ethnicity were defined as self-perceived membership in population groups that define themselves by cultural heritage, language, physical appearance, behavior, or other characteristics ("Standards", 1995, p. 26). From an ethnicity perspective 8.8% (n = 10) of respondents identified themselves as Hispanic/Latino(a)/Chicano(a). In regard to

respondents' race, 84.2% (*n* = 96) identified themselves as White, 7.0% (*n* = 8) identified themselves as Black or African American, 8.8% (*n* = 10) identified themselves as Asian or Pacific Islander, 0.9% (*n* = 1) identified themselves as American Indian or Alaska native. Additionally, three individuals identified themselves within an 'Other' category.

A paper-based questionnaire was used to collect data for the study. The questionnaire was distributed, completed, and collected during class. The data were collected at the beginning of the semester after students had been assigned into their project teams. The questionnaire was compromised of previously developed, valid and reliable instruments to increase observed data validity and reliability (Ary, Jacobs, & Sorensen, 2010). Additionally, the questionnaire was reviewed by a panel of experts knowledgeable in survey design, personality, and undergraduate instruction for face and content validity prior to administration.

Personality data were collected using the Johnson (2011) version of the IPIP-NEO (Goldberg et al., 2006). The instrument included 44 personality statements, with responses on a five-point, Likert-type scale. Possible responses to each item included: 1 – *Strongly Disagree*, 2 – *Disagree*, 3 – *Neutral*, 4 – *Agree*, 5 – *Strongly Agree*. The instrument was selected based on previously established reliability with observed Cronbach's α values of .70 or greater (Johnson, 2011). Based on established social science research standards, a Cronbach's α of .70 or greater is considered sufficient (Cortina, 1993; Schmitt, 1996; Streiner, 2003). Specifically, the emotional stability index was found to have a Cronbach's α of .76, the conscientiousness index was found to have a Cronbach's α of .74, the agreeableness index was found to have a Cronbach's α of .81, the extraversion index was found to have a Cronbach's α of .83, and the openness index was found to have a Cronbach's α of .69.

As part of the questionnaire, students were asked to set distant goals for desired grades in the class and for a group project. Specifically, students were asked, *as you think about your personal goals specific to this course, please enter the percentage score you would like to achieve on your leadership group project*. A similar question was presented asking students to enter the percentage score they would like to achieve in the class overall. The stated goals would not be achieved until after a full, semester long course was completed. Self-identified goals, in the form of grade achievement, were collected based on recommendations within the literature (e.g. Harackiewicz, Tauer, Barron, & Elliot, 2002).

Results were analyzed using SPSS version 25. Descriptive statistics were calculated to determine the personality and goal setting of respondents. Relationships between variables were examined through Pearson product-moment correlations. The predictive capacity between personality variables and goal setting was examined through simultaneous multiple regression (Ary et al., 2010).

Results

Personality Characteristics

Respondent personality scores were calculated using the IPIP-NEO scoring key (Johnson, 2011). IPIP-NEO agreeableness scale scores are based on a one to five scale. Respondents had the highest mean score in agreeableness (*M* = 3.86, *SD* = .35) and the lowest mean score in extraversion (*M* = 3.57, *SD* = .69). The mean, standard deviation, minimum, and maximum scores for each personality factor (emotional stability, conscientiousness, agreeableness, extraversion, and openness) are presented in Table 1. A one-way between subjects ANOVA was conducted to compare the effect of class on personality for the spring 2013, spring 2014, and spring 2015 course

conditions. There was not a significant effect of course on any of the five personality factors at the $p<.05$ level for the three course conditions. Therefore, when discerning class as a variable of interest there was no difference found towards personality scale scores.

Table 1

Personality Scale Scores of Undergraduate Agricultural Leadership Students in a Groups and Teams Course

Personality Scale Scores	n	M	SD	Min	Max
Emotional Stability	113	3.70	0.64	1.60	4.80
Conscientiousness	114	3.69	0.60	2.00	5.00
Agreeableness	107	3.87	0.35	2.92	4.58
Extraversion	115	3.57	0.69	1.20	5.00
Openness	114	3.72	0.57	2.40	5.00

Goal Setting Characteristics

Respondent self-identified grade goals were collected for both project level grades as well as overall class level grades. The mean, standard deviation, minimum, and maximum grade goals for project grade and class grade are presented in Table 2. A one-way between subjects ANOVA was conducted to compare the effect of class on goal setting for the spring 2013, spring 2014, and spring 2015 course conditions. There was not a significant effect of course on neither project grade goal nor class grade goal at the $p < .05$ level for the three course conditions. Thus, no differences were found when determining if project or class grade goal(s) based on course enrollment.

Table 2

Self-Identified Goal Set by Undergraduate Agricultural Leadership Students in a Groups and Teams Course

Grade Goal	n	M	SD	Min	Max
Project	113	96.32	6.17	50.0	100.0
Class	113	95.60	5.76	50.0	100.0

Relationships between Personality and Goal Setting

Pearson product-moment correlations between personality and goal setting, both project and class, were completed to investigate the nature of the relationship between variables (Ary et al., 2010). Correlation coefficients and statistical significance between variables are provided in Table 3. Statistically significant correlations ranged from low to very high in magnitude (Davis, 1971). Statistically significant correlations were observed between project and class grade goals ($p < .001$). Additionally, statistically significant correlations between consciousness ($p < .05$) and agreeableness ($p < .01$) were observed for both project and class grade goals. No significance were found for the variables of emotional stability, extraversion, or openness.

Table 3

Intercorrelations between Personality and Goal Setting

	Project Goal	Class Goal
Project Goal	-	
Class Goal	$.87^{***}$	-
Emotional Stability	.14	.15
Consciousness	$.19^{*}$	$.19^{*}$
Agreeableness	$.39^{***}$	$.33^{**}$
Extraversion	.12	.06
Openness	.15	.10

Note. $* p < .05, ** p < .01, *** p < .001$

Personality Predicting Goal Setting

Multiple regression analysis was completed to determine whether a predictive relationship existed between the five personality factors and self-identified grade goals for both project and class conditions. Self-identified grade goals were treated as a dependent variable. The five personality factors were treated as the independent variables of interest.

Unstandardized regression coefficients in the form of variable level effects along with statistical significance for the project goal setting model are -provided in Table 4. According to the analysis, 17% of the variance in project goal setting is explained by the five factors of personality, and this explained variance is statistically significantly different from 0 because the omnibus model is statistically significant ($R^2 = .17$, $F(5, 98) = 4.08$, $p < .002$). Therefore, the personality factor of agreeableness was found to be a statistically significant predictor ($p < .001$) when controlling for all five personality factors with an effect size $= .21$ (f^2).

Table 4

Predicted Impact of Personality Factors on Project Goal Setting

	b	p
Constant	62.93	$.000^{***}$
Emotional Stability	.61	.558
Conscientiousness	.10	.930
Agreeableness	6.62	$.001^{**}$
Extraversion	.23	.811
Openness	1.13	.331

Note. $***p < .001, **p < .01, R^2 = .17$

Unstandardized regression coefficients in the form of variable level effects along with statistical significance for the class goal setting model are provided in Table 5. According to the analysis 13% of the variance in project goal setting is explained by the five factors of personality, and this explained variance is statistically significantly different from 0 because the omnibus model is statistically significant ($R^2 = .13$, $F(5, 98) = 2.79$, $p < .021$). Thus, the personality factor of

agreeableness was found to be a statistically significant predictor when controlling for all five personality factors ($p = .006$).

Table 5

Predicted Impact of Personality Factors on Class Goal Setting

	b	p
Constant	70.13	.000***
Emotional Stability	.82	.414
Conscientiousness	.63	.552
Agreeableness	5.06	.006**
Extraversion	-.23	.802
Openness	.36	.748

Note. ***$p < .001$, **$p < .01$, $R^2 = .13$

Conclusions, Implications, and Recommendations

The results of the study illuminate one of the primary concerns educators have for engaging learners, specifically, how to get learners to direct their learning process in a self-managed way (McKeachie & Svinicki, 2013). Goal setting has been studied extensively within the literature (e.g. Diefendorff & Lord, 2008); however, there are a limited number of studies that examine how undergraduate leadership students set goals. Specifically, as it relates to a class focused on group and team leadership the purpose of this study was to examine this process. What is known is that self-identified goals tend to be more cogent for the individual and that generally individuals will persist more in pursuit of such goals, particularly when compared to the efficacy of goals set by someone else (e.g. Ryan & Deci, 2000).

Personality, as one of the more stable learner characteristics provides an interesting backdrop upon which to examine the goal setting process (e.g. Lamm et al., 2014). Results indicate that across three times that a course was taught at a single institution, with different learners participating in the course each time, personality level observations were independent of class. An implication resulting from this study is that individuals teaching an upper level undergraduate leadership course, particularly focused on groups and teams within the institution in which the data were collected, may want to use the study results as an initial set of guidelines upon which to evaluate future classroom personality composition.

Results indicate that extraversion had the lowest mean score across multiple classes. Thus, surgency as it has been previously correlated with job performance (Barrick & Mount, 1991) is an important variable that needs further evaluation. Therefore, a recommendation would be for educators to consider employing teaching techniques that will provide a safe and supportive environment for learners to interact amongst each other (Judge & Bono, 2000; Barrick & Mount, 1991). Additionally, agreeableness held the highest observed mean score. Based on the findings of this study and previous, it is recommended that educators consider leveraging the potential tendency to frame the nature of teamwork. Thus, educators should emphasize the aspects of politeness and compassion necessary for teams to work effectively, and develop bonds that may resonate with learners.

Consistent with Schunk and Zimmerman (2007), McKeachie and Svinicki (2013) propose, "We know that strategic learners need to be able to set and use meaningful goals to help them learn

and to help them generate and maintain their motivation for studying" (p. 294). The results of this study are informative from both a theoretical and practical perspective. From a practical perspective, the study provides a potential methodology that educators can employ to encourage learners to set self-identified goals. A recommendation is for educators to consider asking undergraduate leadership students to write down their grade goals for a course at the beginning of the course. The process of identification has been shown to predict persistence and exertion in pursuing such goals (Ryan & Deci, 2000). From a theoretical perspective, the current study provides a point of reference upon which future research and observations can be compared. Within the sample of the current study, learners tended to set high goals for themselves at both the project and course level. It has been further seen that individuals that set high goals tend to emerge as leaders in groups (Watson & Clark, 1997). Future research is recommended to replicate this study within other learning environments to determine whether goal setting observations may differ among classes, audiences, or environments.

When examining the nature of the relationship between the five-factors of personality and goal setting there were noteworthy results. The very high correlation between project and class grade goals is perhaps expected, but informative nevertheless. From a practical perspective, this result may be interpreted as learners tended to set similar goals for themselves at both the project and class level. This is an area where future research may be warranted to determine whether there is any incremental value of setting project level goals or if class level goals are sufficient.

Consistent with previous results (Barrick & Mount, 1991), the statistically significant relationship between conscientiousness and goal setting was also somewhat anticipated. However, in previous research conscientiousness was found to be a more robust predictor than in the current study. A less anticipated result was the magnitude of the relationship between agreeableness and goal setting at both the project and class level. The results imply that more than any of the other observed personality variables, and level of agreeableness had the strongest relationship with goal setting. A recommendation is for educators to consider framing goal setting exercises with learners in not only achievement, or conscientiousness, terms, but also consider ways in which agreeableness can be included. Therefore, acknowledging the facet of trust and trustworthiness (Costa & McCrae, 1992) within agreeableness may be a strong cognitive tool in motivating learners to: identify a goal, communicate that goal to the educator establishing a trust compact, and persist toward the goal as a demonstration of trustworthiness.

The observed predictive capacity of personality as antecedents of goal setting within the study are also informative. With 13% of the observed variance in class goal setting and 17% of the variance in project goal setting, personality held a statistically significant set of independent variables. However, the most noteworthy finding was the emergence of agreeableness as the only statistically significant predictor of self-identified grade goals. This was an unexpected finding given the strength of the relationship between conscientiousness and achievement previously observed (e.g. Barrick & Mount, 1991). The result implies that of all the personality factors, agreeableness is the only factor that was predictive of goal setting within the current study. Consequently, a recommendation is for educators to consider the importance of agreeableness when guiding learners through the goal setting process. Focusing on the trust and straightforwardness aspects of agreeableness (Costa & McCrae, 1992) within goal setting may resonate with learners and make the process more readily aligned with natural dispositions.

Despite the observed results, there are limitations associated with the current study that must be addressed. First, the study, while covering three classes of students, is not generalizable to a population of learners, or even learners in other classes or institutions. Therefore, although statistically significant relationships were observed, future research is recommended to further

illuminate that nature of personality and goal setting with different learner audiences, different courses, and different institutions. An additional limitation is the potential for respondent bias in the results. Although statistical controls and checks were made to mitigate the possibility of systemic response bias, there is the possibility that respondents were not truthful or committed to their identified grade goals. Additional research may be appropriate to consider not only grade goals, but also ultimately grade attainment. This research may also provide insights as to predictors of goal persistence among learners.

A common question amongst educators focuses on how to make learning experiences more meaningful and engaging (Roberts et al., 2016). Based on the results of this study, educators now have empirical data to inform educational decisions. The impact of personality and goal setting when framed in the context of this study, should allow further investigation into understanding their role. Educational contexts hold many diversified individuals and understanding their goal setting characteristics in the context of personality will aid educators. Although generalizability of the results is limited, the application of methods and recommendations should provide additional options and opportunities to educators towards experimentation and replication as seen appropriate.

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