Examination of the Big Five and Narrow Traits in Relation to Learner Self-Direction

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Abstract

Self-direction in learning is a major topic in the field of adult learning. There has been extensive coverage of the topic by theorists, researchers, and practitioners. However, there have been few studies which look at learner self-direction specifically as a personality trait. The present study addresses the relationship between learner self-direction and other personality traits of college students when the traits represented by the five-factor model of personality are differentiated from narrow personality traits. Analysis of the data revealed five significant part correlations between specific traits and learner self-direction. Results were discussed in terms of the predictive relationship between personality variables and learner self-direction.

This claim establishes the important contribution of this particular study.

An abstract is a brief summary of your paper with an overview of key points. Your topic and research questions should be clear, and you may include the importance of your results in continuing current academic research.

Consider briefly mentioning key terms, participants, methods, analysis, and the final conclusion.

An ideal abstract is one paragraph.
Examination of the Big Five and Narrow Traits in Relation To Learner Self-Direction

Self-direction in learning is a major topic in the field of adult learning. It has been shown that psychological variables are directly related to learner self-directedness (Oliveira & Simões, 2006). However, there have been few studies that look at learner self-direction specifically as a personality trait. If personality traits are relatively consistent for learners across situations and over time, and if learner self-direction changes across situations and over time, the most logical interpretation of why the personality trait—learner self-direction relationship is relatively consistent within and across such disparate factors as age and returning to college after personality traits are driving the relationship. This implies that other learner self-direction, not that learner self-direction is influencing other personality traits. The goal of the present study is to try to understand the connection between personality and self-direction in learning and ascertain to what extent individual personality traits are related to learner self-direction when the traits represented by the five-factor model of personality (Digman, 1990) are differentiated from narrow personality traits. The study draws on and extends the work of Lounsbury, Levy, et al. (2009), who reported on the development of a valid personality measure of learner self-direction.

Literature Review

Brockett and Hiemstra (1991) emphasized the importance of self-directed learners being able to plan their own learning program and consistently evaluate progress. Hiemstra (1994) noted that self-directed learners should be prepared for the “unexpected” and capable of dealing with unforeseen problems. This suggests that learners who are self-directed are better equipped to deal with the unforeseen challenges of learning environments. The literature review highlights the importance of self-direction in adult learning and provides a foundation for understanding the relationship between personality traits and learner self-direction.
with challenges in learning. Ponton and Carr (2000) stated that, “The concept of autonomy (Knowles, 1980; Merriam & Caffarella, 1999) exists under the personality characteristic rubric of self-directed learning” (p. 273). A student showing initiative, resourcefulness, and persistence is exhibiting manifestations related to personality characteristics as a learner. Ponton and Carr (ibid) note that Confessore (1991, p. 129) suggests that individuals who exhibit these “conative” factors in their learning activities “possess traits which are essential to successful self-direction in learning” (p. 273). These factors are related to Ponton’s (1999) discussion of autonomous learning consisting of five behaviors: goal-directedness, action-orientation, active-approach to problem solving, persistence in overcoming obstacles, and self-startedness which is consistent with the afore-mentioned conceptualizations of Work Drive (Lounsbury & Gibson, 2010).


**Methods**

For this study, the focus is on learner self-direction as an individual differences variable that can be represented on a continuum from low to high rather than a categorical or nominal variable. We conceptualize and measure learner self-direction as a personality trait reflecting individuals’ preference to be in charge of their learning process; ability to conceptualize, plan, implement, and evaluate one’s academic experience; and disposition to be goal-oriented and to work independently or in group settings with little guidance.

**Population and Sample**

Undergraduate students enrolled in an introductory psychology course (n = 1484) and undergraduate student-mentors in a peer-mentoring program (n = 618) at a large southeastern...
state university were recruited to participate in this study. Of the 2102 participants in this study, 40% were male (60% female). Fifty-seven percent of the participants were Freshmen; 26%, Sophomores; 14%, Juniors; and 5%, Seniors. Eighty-four percent of the participants identified themselves as Caucasian, 9%--African-American, 2%--Hispanic, 2%--Asian, and 3%--other. The median age of participants was 18-19 years old.

**Instrumentation**

The personality measure used in this study was the Resource Associates’ Transition to College inventory (RATTC) (Lounsbury & Gibson, 2010). The RATTC is a normal personality inventory contextualized for late adolescents (Jaffe, 1998) and adults through high school and college. It measures the Big Five Traits of Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. The RATTC also measures the narrow traits of Aggression, Career-Decidedness, Optimism, Self-Directed Learning, Sense of Identity, Tough-Mindedness, and Work Drive.

**Results**

Pearson product-moment correlation coefficients were calculated between learner self-direction and the Big Five traits as well as narrow traits of Work Drive and Optimism. Descriptive statistics and intercorrelations among the study variables are displayed in Table 1. As can be seen in Table 1, all of the Big Five personality traits are correlated significantly and positively with learner self-direction, except for Extraversion. Specifically, in descending order of magnitude, the correlations with Self-Directed Learning were: Openness (r = .43, p < .01), Agreeableness (r = .21, p < .01), Emotional Stability (r = .20, p < .01), Conscientiousness (r = .20, p < .01), Extraversion (r = .01, ns), and the narrow personality traits also correlated...
significantly with learner self-direction, with the largest magnitude correlation observed for Work Drive \( (r = .49, p < .01) \), followed by Optimism \( (r = .31, p < .01) \).

The next phase of the analysis involved examining the part correlations of learner self-direction with Openness, Conscientiousness, Extraversion, Agreeableness, Emotional Stability, Optimism, and Work Drive. A multiple regression analysis was conducted with learner self-direction as the dependent variable, and the remaining variables as predictors entered simultaneously. The part correlations represent the correlations of learner self-direction with each of the predictor variables, independent of the other predictors. Thus, the squared part correlations give an indication of the unique contribution of each variable to learner self-direction. An examination of the squared part correlations of the five significant variables indicates that Work Drive accounted for 9.6% of the variance, Openness accounted for approximately 4.3% of the variance, Optimism accounted for almost 1% of the variance, and Extraversion and Agreeableness each accounted for less than 1% of the variance in learner self-direction.

All variables were entered simultaneously into a multiple regression model to estimate the degree of learner self-direction prediction. The overall regression was significant, \( F (7, 2094) = 15.19, p < .01 \), and these variables accounted for over 52% of the variance in learner self-direction. As can be seen in Table 1, five of the variables explained significant variance in the model: Work Drive, Openness, Optimism, Emotional Stability, and Extraversion (Table 6). The strongest correlate of learner self-direction was Work Drive \( (\beta = .37, p < .01) \), followed by Openness \( (\beta = .23, p < .01) \), Optimism \( (\beta = .12, p < .01) \), Emotional Stability \( (\beta = .07, p < .01) \), Extraversion \( (\beta = -.05, p < .05) \), Conscientiousness \( (\beta = .03, \text{ns}) \), and Agreeableness \( (\beta = .02, \text{ns}) \), which had the lowest magnitude correlation with learner self-direction in the study.
**Table 1**  
*Simultaneous Regression*

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<th>Unstandardized Coefficients</th>
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<th>Correlations</th>
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**Discussion**

The present study was generally successful in terms of providing validation of the main research propositions. Six of the eight hypotheses were supported, which is both consistent with and extends prior studies (Kirwan et al., 2010; Lounsbury, Levy, et al., 2009) in that learner self-direction was uniquely related to four of the Big Five traits studied as well as and both of the narrow traits examined here. The present findings reinforce and support Lounsbury, Levy et al.’s (2009) study which demonstrated “…the importance and richness of the self-directed learning construct and … its role as a personality trait” (p. 417). Considering first the Big Five traits, the significant, positive relationships between them and learner self-direction are consistent with Lounsbury, Levy et al.’s (2009) findings. Regarding the narrow traits, significant, positive relationships between learner self-direction and Work Drive as well as Optimism were also supported.
Brockett and Hiemstra (1991) emphasized the importance of self-directed learners being able to plan their own learning program and consistently evaluate progress. Hiemstra (1994) noted that self-directed learners should be prepared for the “unexpected” and capable of dealing with challenges in learning. Ponton and Carr (2000) state that the concept of autonomy (Knowles, 1980; Merriam & Caffarella, 1999) exists under the personality characteristic rubric of self-directed learning” (p. 273). A student showing initiative, resourcefulness, and persistence is exhibiting manifestations related to personality characteristics as a learner. Confessore (1991) suggested that individuals who exhibit these “conative” factors in their learning activities “possess traits which are essential to successful self-direction in learning” (p. 273). These factors are related to Ponton’s (1999) discussion of autonomous learning consisting of five behaviors: goal-directedness, action-orientation, active-approach to problem solving, persistence in overcoming obstacles, and self-startedness which is consistent with the afore-mentioned conceptualizations of Work Drive (Lounsbury & Gibson, 2010). Again, this aligns with Lounsbury, Gibson, and Hamrick’s (2004) Work Drive construct as a predictor of performance and Gladwell’s (2008) emphasis on persistence leading to success.

There are two primary limitations of the current study that should be acknowledged. First, this study was limited to a four-month interval in time in a single geographic area at a large, public university, leaving open the question of generalizability to other time periods, geographic areas, and types of universities. Second, most of the study participants were lower-level students; thus, it is not possible to know if the results would be different with primarily upper-level or graduate students.

There are a number of other interesting areas for future research which could clarify and extend the present findings. In addition to the need for replication on different samples, research...
could be conducted on how the Big Five and narrow personality traits relate to sense of identity and learner self-direction. Another topic for investigation is the relationship between age of students and learner self-directedness. As mentioned earlier, perhaps the most important need for future research is to utilize longitudinal research designs to help clarify the direction of causality for personality traits vis-à-vis self-directed learning and to try to determine how these linkages are established.

**Concluding Remarks**

The results of the present study indicate that the Big Five traits as well as the two narrow traits measured in this study were each related to learner self-direction, with Work Drive and Openness accounting for most of the variance in learner self-direction on their own. Taken as a whole, the present findings were interpreted as, in part, confirming and extending the results of Lounsbury, Levy, et al. (2009) and Kirwan et al. (2010) regarding the Big Five, narrow traits, and learner self-direction, demonstrating the generalizability of personality trait—learner self-direction relationships across a variety of different demographic and personal subgroups of students, and providing some clues that the direction of the causal arrow may be from personality traits to learner self-direction.

In conclusion, it is clear that learner self-direction has multiple connections to personality traits and is not clearly associated with just one of the Big Five traits. In a sense, this pattern of multiple connections to personality is consistent with the diverse factors learner self-direction has been linked to in the theoretical literature, as, for example, the six vectors of college student development that Chickering and Reisser (1993) posit as leading to identity establishment for college students. Hopefully, further research will extend and clarify the nomological network of personality traits and self-direction in learning across a broad range of settings.
References


