

Assessing academic (dis)honesty: A factor analytic study

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Abstract. For over 70 years, research has tackled the issue of academic misconduct in the university setting. However, a review of the literature reveals that (a) consensus on the magnitude of such behavior has not been reached and (b) no one with expertise in quantitative methodology has attempted to classify the behaviors that describe cheaters until Ferrell and Daniel proposed the use of the Academic Misconduct Survey (AMS). Even they, following their 1995 study, made a call for the development of understandable constructs in the measurement of cheating. Twelve years later, the present study seeks to produce such constructs. Nearly 600 participants completed a revised version of the AMS. A factor solution containing six factors proved to be the most interpretable. The present paper outlines the factor solution, and discusses future directions in this area of research.

1. Introduction

Social critics and columnists have recently given literary attention to academic misconduct within the pages of popular magazines such as *Newsweek*. With titles like “To Catch a Cheat,” readers are left with the impression that academic misconduct in American schools is at an all time high [1]. In spite of this recent public attention, researchers have been tackling the issue of academic misconduct in the university setting for over 70 years [2]. Even with a considerable amount of empirical data, consensus on the magnitude of such behavior has not been reached [3]. Many reasons exist to explain this lack of agreement. Even an initial browsing of the literature illustrates the wide variation in instruments used to measure academic misconduct [4]. These range from open-ended questions to Likert-type scales, some consisting of five questions, and others as many as fifty. Second, many of the studies utilize scales created by the researcher, with little to no information regarding the reliability of such instruments. Further, many of these researcher-created scales are not provided in full text within the journal articles. To date, only two published attempts have been made to create instruments useable in creating understandable constructs [3]. Lastly, anonymity and attempts to control for social desirability vary across studies,

which undoubtedly contributes to the variation across studies given the sensitive nature of the topic.

An exhaustive review of the literature also reveals that no one with expertise in quantitative methodology has attempted to classify the behaviors that describe cheaters until Ferrell and Daniel proposed the use of the academic misconduct survey (AMS). Even they, following their 1995 study, made a call for the development of understandable constructs in the measurement of cheating behavior. Once reasonably defined, a reliable instrument that delineates interpretable constructs may be used for the purpose of reaching consensus on magnitude, comparability across studies, and in the end, theory development. Twelve years after Ferrell and Daniel’s 1995 plea, the present study seeks to produce such constructs.

2. Experiment, Results, Discussion, and Significance

Approximately 587 participants, from two different Midwest universities (Wichita State University N = 313, University of Southern Indiana N = 274), completed a revised version of the Academic Misconduct Survey [3]. Five important changes were made prior to data collection based on the original Ferrell and Daniel study. First, 57 of the original 63 items were included in the current study. Second, the response scale was set to a Likert type scale, ranging from 1 (*never*) to 6 (*frequently*). In addition to the 57 original items, two items designed to detect response sets were included. Fourth, the current study used a much larger sample (original study N = 330). And lastly, the authors of this study allowed the variables to be correlated during analysis.

Data collection took place in the classroom setting, where students completed the survey using bubble sheets after reading and signing the informed consent document. All responses were completely anonymous. Four hundred and sixty-nine surveys were utilized in the final analyses, which included 42

items. Surveys that indicated response sets (i.e., participants that failed the two validity questions) were removed from the data set. Likewise, survey items that indicated little to no variance were removed prior to the final analyses.

Using discriminant analysis, it was determined that no meaningful difference existed between the two universities; hence, the data was combined and factor analyzed (Wilk's Lambda of .95). Exploratory factor analysis was conducted to determine if any underlying structures existed for the 42 variables designed to gauge behaviors that constitute academic misconduct. Principle components extraction was used prior to principle axis extraction in order to estimate the number of potential factors. Two criteria were used given the iterative nature of factor analysis: Unrotated eigenvalues greater than one and a scree plot. Six factors were retained for analysis based on the aforementioned criteria.

To verify that six factors achieved simple structure, Principal axis factoring was completed. As we had no reason to assume that the factors would be orthogonal, we chose to use oblique rotation (VARIMAX followed by PROMAX) with five, six and seven factors extracted. Six factors proved to achieve simple structure and model fit. A cut-off of .32 was utilized in interpreting each factor [5]. The pattern matrix and structure matrix are available from the author upon request.

Interpretation of the pattern matrix coefficients led to the following six factors (the number of items loading on each are in parentheses following the factor name): Reducing workload by borrowing (seven), creative padding (seven), mutual sharing (four), doing for others (six), false personal situations (four), and using others (two). Reducing workload by borrowing appeared to tap those students who prefer to lean on others, rather than completing work themselves. Creative padding appeared to tap those students who cushion their work to create the illusion that they have completed more work than they actually have. Factor three, mutual sharing, appears to have a collaborative nature, bringing to mind the old adage "I scratch your back and you scratch mine." Next, doing for others, appears to tap those students who can't say "no" when asked to do a favor, even if it is academically dishonest. Factor five, false personal situations, speaks for itself. These are the students who use "little white lies" regarding personal situations to excuse themselves from academic responsibilities. And lastly, using others appears to be tapping those students who "pay" others to complete their work.

As is expected in survey development, additional rounds of factor analysis are needed to produce a cleaner solution. Currently, the authors are collecting data from other regions, including Canada, in order to obtain a more diverse sample and better defined constructs. Further, given the increased use of electronics in the classroom, items that gauge cheating using such instruments have been included. It is expected that these items will produce a seventh factor. Lastly, confirmatory analyses are planned following the analysis of the data being collected this Spring.

3. Conclusions

These results provide initial support for underlying structures that dictate and direct students' academically dishonest behaviors. The results of this factor analysis hold the potential to aid in the development and validation of an instrument that could prove fruitful in future research in the area. Once reasonably defined, a reliable instrument will aid in reaching a consensus in the literature as to what constitutes academic misconduct, the magnitude of such behavior, the ability to compare across studies, and ultimately theory development. Of course, it is recommended that others' attempt to recapture these structures as well.

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