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# An Exploratory Assessment of the Validity of the Community College Survey of Men (CCSM): Implications for Serving Veteran Men

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The Community College Survey of Men (CCSM) assesses predictors of student success for historically underrepresented and underserved men in community colleges. The instrument is designed to inform programming and service-delivery for male students (Wood & Harris, 2013). While the instrument was designed for community college men in general, this validation study sought to determine the utility of this instrument as a needs assessment tool for veteran men as well. Analyses identified five constructs with strong factor loadings and internal consistency, they included action control, locus of control, degree utility, self-efficacy, and intrinsic interest. The CCSM is recommended as a tool to better address the needs of veteran men.

In recent years, the community college has seen an influx of veterans returning home from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) (Randall, 2012). Like their counterparts in prior eras, these veterans often pursue post-war/conflict opportunities via postsecondary education. Often, their pursuit of a postsecondary certificate or degree begins at a community college, where 36% of military service members and veterans who attend

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postsecondary education are enrolled (Radford, 2011). As veterans continue to return home and subsequently complete their military service, the community college serves as a viable option for utilizing their post 9/11 G.I. Bill benefits (U.S. Department of Veterans Affairs, 2012). With the rise of veteran populations at community colleges, there remains a need for these institutions to better serve veterans. Prior research on veteran students has shown that they can experience feelings of disconnectedness, isolation, and discomfort in the collegiate environment (Persky & Oliver, 2010).

The Community College Survey of Men (CCSM) assesses predictors of student success for historically underrepresented and underserved men in community colleges. The instrument is designed to inform programming and service-delivery for male students (Wood & Harris, 2013). While the instrument was designed for community college men in general, this validation study sought to determine the utility of this instrument as a needs assessment tool for veteran men as well. Specifically, due to the noncognitive factors affecting veteran male success, the analysis focused on the instrument's noncognitive intrapersonal constructs. The instrument is designed to assess academic, noncognitive, environmental, and campus related factors that influence the success of men, particularly men of color.

Wood and Harris (2013) recommend the CCSM as a tool for establishing student benchmarks and for identifying areas in need of improvement. The instrument was developed based on prior research on college men, with a focus on literature pertaining to men and masculinities, racial identity, psychosocial outcomes, men of color, and community college student success (e.g., Mason, 1998; Wood, 2012). As noted, this study focused on the instrument's noncognitive outcomes. Noncognitive outcomes pertain to students' affective and emotional responses to their environments (e.g., campus, home, community) as well as their identities (e.g., masculine, racial, academic). Within this domain, this analysis focused intently on intrapersonal factors including action control, self-efficacy, intrinsic interest, locus of control, and degree utility. These five constructs are defined below:

- Action Control–the directed attention (focus/effort) students place on academic matters.
- Self-efficacy–students' confidence and perceived ability to complete academic coursework successfully.
- Intrinsic Interest–students' authentic personal interests and enjoyment in learning academic subject matter.
- Locus of Control–students' feeling of control over their academic futures.
- Degree Utility–students' perceptions of the usefulness or worthwhileness of their collegiate endeavors.

These five constructs have been identified in literature on student success, specifically for men of color, as being strong contributors to student success outcomes (Harris & Wood, 2014; Mason, 1998). These outcomes include students' feeling of connectedness and belonging in collegiate environments, their academic achievement, persistence, and engagement experiences. Prior research on the CCSM has shown the utility of the instrument in measuring noncognitive outcomes (see Wood & Harris, 2013); however, this study extends the investigation of the CCSM's psychometric properties to veteran male populations.

## METHODS

Data employed in this validation analysis is derived from the CCSM. Thus far, the CCSM has been conducted at 38 community colleges in eight states. The sample for this analysis was restricted to men who identified as having veteran status. The final sample included 391 veteran men from 17 community colleges. The instrument was randomly distributed to men attending these institutions using an online distribution platform. This analysis focuses solely on the noncognitive intrapersonal items in the instrument that are presented to participants on a six-point scale of agreement. Data were analyzed using exploratory factor analysis (EFA) and item reliability analysis. EFA is a multivariate procedure that allows researchers to identify variables measuring common elements based on their variation and covariation (Green & Salkind, 2009). In this case, an EFA was employed to explore whether the CCSM instrument's validity extends to veteran male populations. Internal consistency was assessed via Cronbach alpha coefficients.

## FINDINGS

Factor analysis was applied to 20 variables in the CCSM (see Table 1). A principal component factor analysis was conducted to determine whether underlying factors were evident in the instrument. Guided by an a priori hypothesis that the measure was unidimensional, the dimensionality

TABLE 1
Community College Veterans Variance and Deviations Related to Academic Motivation and Success on the CCSM

| *Item* | *Mean* | *SD* |
|---|---|---|
| The time I spend in school will help me achieve my personal goals. | 5.16 | 1.053 |
| Attending college will provide me with financial security. | 4.59 | 1.246 |
| Attending college will increase my job opportunities. | 5.17 | 1.067 |
| Attending college will create a better life for me and my family. | 5.07 | 1.011 |
| If I study hard enough, I'll get good grades. | 5.35 | .862 |
| I have full control over my own academic success. | 5.32 | .981 |
| I have the power to get good grades when I want to. | 5.36 | .883 |
| My academic success is in my own hands. | 5.36 | .901 |
| I am completely focused on school. | 4.47 | 1.100 |
| I work as hard as I can to earn good grades in all my classes. | 4.81 | 1.048 |
| I put forth my best effort in school. | 4.84 | 1.075 |
| I am driven to be successful in school. | 5.02 | 1.056 |
| I have the ability to excel in my coursework. | 5.36 | .796 |
| I can understand difficult concepts. | 5.16 | .883 |
| I can master the material in my courses. | 5.12 | .900 |
| I am confident in my academic abilities. | 5.26 | .896 |
| I enjoy learning from my classes. | 5.28 | .969 |
| What I learn in class is interesting. | 5.06 | 1.061 |
| I want to learn as much as I can in school. | 5.41 | .843 |
| I get totally absorbed in my coursework. | 4.47 | 1.249 |

of the items was assessed using the one-criterion and the scree-test. Five factors emerged with eigenvalues greater than one; moreover, four factors seemed to be in the sharp descent path of the plot with one additional factor in moderate descent. This suggested that five subconstructs were evident in the inventory. To further clarify the interpretation of the factor structure, a maximum likelihood extraction method with Varimax rotation was employed. The rotated matrix was examined for item-factor congruency, yielding five determinable factors. The proportion of item variance accounted in the rotated solution was as follows: Factor 1, 17.6%; Factor 2, 16.1%; Factor 3, 16.1%; Factor 4, 14.8%; and Factor 5, 10.5%. These factors accounted for 75.1% of the variable variance.

The rotated matrix of factor loadings and associated names are presented in Table 2. Factor 1 is named action control. Action control refers to students' directed attention placed on academic matters. The four variables with the highest loadings for Factor 1 were (a) I put forth my best effort in school; (b) I work as hard as I can to earn good grades in all my classes; (c) I am driven to be successful in school; and (d) I am completely focused on school. Factor rotation scores

TABLE 2
CCSM Varimax Rotation Factor Loading Matrix for Community College Veterans

| | *Factor* | | | | |
|---|---|---|---|---|---|
| | *Action Control* | *Self-Efficacy* | *Intrinsic Interest* | *Locus of Control* | *Degree Utility* |
| I put forth my best effort in school. | .913 | – | – | – | – |
| I work as hard as I can to earn good grades in all my classes. | .885 | – | – | – | – |
| I am driven to be successful in school. | .789 | – | – | – | – |
| I am completely focused on school. | .634 | – | – | – | – |
| I am confident in my academic abilities. | – | .796 | – | – | – |
| I can master the material in my courses. | – | .784 | – | – | – |
| I can understand difficult concepts. | – | .776 | – | – | – |
| I have the ability to excel in my coursework. | – | .669 | – | .401 | – |
| What I learn in class is interesting. | – | – | .843 | – | – |
| I enjoy learning from my classes. | – | – | .810 | – | – |
| I want to learn as much as I can in school. | – | – | .650 | – | – |
| I get totally absorbed in my coursework. | – | – | .594 | – | – |
| The time I spend in school will help me achieve my personal goals. | – | – | *.428* | – | *.420* |
| I have full control over my own academic success. | – | – | – | .885 | – |
| My academic success is in my own hands. | – | – | – | .848 | – |
| I have the power to get good grades when I want to. | – | – | – | .677 | – |
| If I study hard enough, I'll get good grades. | – | – | – | .459 | – |
| Attending college will create a better life for me and my family. | – | – | – | – | .882 |
| Attending college will increase my job opportunities. | – | – | – | – | .809 |
| Attending college will provide me with financial security. | – | – | – | – | .701 |

ranged from .634 to .913. Factor 2 is named self-efficacy, which refers to students' confidence and perceived ability to complete academic coursework successfully. The four variables with the highest loadings for Factor 2 were (a) I am confident in my academic abilities; (b) I can master the material in my courses; (c) I can understand difficult concepts; and (d) I have the ability to excel in my coursework. The last variable, ability to excel, rotated on the fourth factor and the second factor. However, the loading for the second factor (at .669) was much higher than that of the fourth factor (.401). As such, the variable was retained on the second factor. The factor rotation scores for this factor ranged from .669 to .796.

Factor 3 is named intrinsic interest. Intrinsic interest refers to students' authentic personal interest in learning academic subject matter. The five variables with the highest loadings for Factor 3 were (a) What I learn in class is interesting; (b) I enjoy learning from my classes; (c) I want to learn as much as I can in school; (d) I get totally absorbed in my coursework; and (e) The time I spend in school will help me achieve my personal goals. The fifth variable, I get totally absorbed, rotated on Factor 3 and Factor 5. The loadings were not significantly different between Factor 3 (at .428) and Factor 5 (at .420). Based upon a heuristic grouping, the variable was more compatible with the fifth factor. However, Cronbach alpha coefficients did not indicate that the variable contributed to enhanced reliability for either factor. As a result, the variable was eliminated from inclusion. In all, factor rotation scores ranged from .594 to .843.

Factor 4 is named locus of control. Locus of control refers to students' feeling of control over their academic futures. The four variables with the highest loading for Factor 4 were (a) I have full control over my own academic success; (b) My academic success is in my own hands; (c) I have the power to get good grades when I want to; and (d) If I study hard enough, I'll get good grades. Factor rotation scores ranged from .459 to .885.

Factor 5 was termed degree utility. Degree utility refers to students' perceptions of the usefulness or worthwhileness of their collegiate endeavors. The three variables with the highest loading for Factor 5 were (a) Attending college will create a better life for me and my family; (b) Attending college will increase my job opportunities; and (c) Attending college will provide me with financial security. Factor rotation scores ranged from .701 to .882.

Construct reliability was examined using Cronbach's alpha. In particular, the instrument was initially designed for use in examining cross-racial ethnic differences. Thus, the researchers were interested in ascertaining whether or not the reliability of the instrument for veteran respondents was evident across groups. Table 3 presents the Cronbach's alphas for each racial/ethnic group in the sample for each of the five identified constructs. In all cases, the reliability for the constructs exceeded the traditional threshold of .70. It should be noted that the reliability analyses only included groups with at least 25 respondents or more. Given this, Asian American men ($n =$

TABLE 3
Coefficient Reliability for Intrapersonal Factors by Racial/Ethnic Group

| *Items* | *Action Control* | *Academic Self-Efficacy* | *Intrinsic Interest* | *Locus of Control* | *Degree Utility* |
|---|---|---|---|---|---|
| All Men | .915 | .898 | .867 | .887 | .860 |
| White | .901 | .898 | .850 | .874 | .886 |
| Black | .922 | .887 | .868 | .939 | .876 |
| Mexicano | .938 | .929 | .916 | .845 | .833 |
| Latino | .957 | .917 | .777 | .844 | .803 |

20) and All Other men ($n = 20$) fell below this threshold and are not included in the table. Reliability scores across these groups were strong (at .70 or above) for these groups. Nearly all reliability scores were at .80 or above. The only exception was the reliability score for degree utility for Asian men, which fell below the accepted threshold (at .652).

## IMPLICATIONS

This validation study examined the psychometric properties of the CCSM for examining veteran men. Analyses identified five constructs with strong factor loadings and internal consistency, they included action control, locus of control, degree utility, self-efficacy, and intrinsic interest. The CCSM is recommended as a tool to better address the needs of veteran men. Specifically, the tool can be used to inform programming, policies, and practices relevant to veteran men in community colleges. For example, many community colleges have (or are initiating) veteran support services and programs. These services are designed to facilitate veteran students' transition to civil college life. This instrument can serve as a key tool for helping these programs better design, implement, and assess their effect on veteran men. Further research should examine the validity and reliability of the instrument on a larger sample of veteran men. In addition, scholars should explore whether the CCSM scales maintain their integrity across racial/ethnic groups. Given that the instrument was designed to inform cross-racial/ethnic comparisons, this recommendation is particularly salient. Moreover, scholars should also employ confirmatory factor analysis to test the factor structure of the instrument. This more advanced analytic procedure is necessary to the structural validity of the constructs in the CCSM.

## REFERENCES

Green, S. B., & Salkind, N. J. (2009). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (5th ed.). Upper Saddle River, NJ: Pearson.

Harris, F., III, & Wood, J. L. (2014, March). *Men of color in the community college: Using institutional-level needs assessment to guide capacity building*. Paper presented at the annual meeting of the $A^2$Mend conference, Los Angeles, CA.

Mason, H. P. (1998). A persistence model for African American male urban community college students. *Community College Journal of Research and Practice*, *22*(8), 751–760.

Persky, K. R., & Oliver, D. E. (2010). Veterans coming home to the community college: Linking research to practice. *Community College Journal of Research and Practice*, *35*(1–2), 111–120.

Radford, A. W. (2011). *Military service members and veterans: A profile of those enrolled in undergraduate and graduate education in 2007–2008* (Report No. 2000-163). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

Randall, M. (2012). Gap analysis: Transition of health care from Department of Defense to Department of Veterans Affairs. *Military Medicine*, *177*(1), 11–16.

U.S. Department of Veterans Affairs. (2012). *Post 9/11 GI Bill: It's your future* (VA Pamphlet 22-09-1 Revised). Washington, DC: Author.

Wood, J. L. (2012). Examining academic variables affecting the persistence and attainment of Black male collegians: A focus on performance and integration in the community college. *Race Ethnicity and Education*, *iFirst Article*, 1–22. doi:10.1080/13613324.2012.733687

Wood, J. L., & Harris, F., III. (2013). The Community College Survey of Men: An initial validation of the instrument's non-cognitive outcomes construct. *Community College Journal of Research and Practice*, *37*(4), 333–338.