

Community College Student Success Inventory (CCSSI) for Men of Color in Community Colleges: Content Validation Summary

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The Community College Student Success Inventory (CCSSI) for Men of Color in Community Colleges was subjected to validation tests to examine the instrument's content validity. Content validity refers to "the extent to which an instrument adequately samples the research domain of interest when attempting to measure phenomena" (Wynd, Schmidt, & Schaefer, 2003, p. 509). More simply, it is the degree to which an instrument accurately measures what it is intended to measure (Davis, 1992; Grant & Davis, 1997; Waltz, Strickland, & Lenz, 2005). With respect to the CCSSI, M2C3 evaluated whether the instrument adequately assessed items and content areas regarding programs, services, and policies that influence outcomes for men who have been historically underrepresented and underserved in education.

The CCSSI was designed to be used by community college educators to assess their institution's efforts and readiness to facilitate student success for men of color. The development of the inventory was based on an extensive review of published literature and research on student success for men of color in community colleges (e.g., Bush & Bush, 2010; Flowers, 2006; Glenn, 2003-2004; Hagedorn, Maxwell & Hampton, 2001; Harris & Wood, 2013; Mason, 1998; Perrakis, 2008; Vasquez Urias, 2012; Wood, 2012; Wood & Essien-Wood, 2012; Wood & Harris, 2013). The literature analysis revealed six overarching categories of institutional action and support needed for the success of men of color who are enrolled in community colleges: 1) financial aid, 2) student support services, 3) teaching and learning, 4) institutional research, 5) minority male initiatives and programs, and 6) early alert systems. In addition, our conceptualization and design of this tool was heavily influenced by the Center for Urban Education's (2010) campus inventories for Latina/o student success in STEM.

Method

To determine the validity of the CCSSI, M2C3 provided a full copy of the instrument to subject matter experts (SMEs), which were community college professionals (e.g., counselors, advisors, program directors) and scholars with extensive backgrounds working with and leading initiatives designed to support men of color in community colleges. The SMEs rated each statement in the CCSSI on a four-point scale, ranging from "not relevant", "somewhat relevant", "relevant", and "highly relevant". SME's were informed that each category had a set of statements or indicators that were intended to support colleges in identifying institutional strengths and areas needing improvement or attention for men of color. An example of a

statement in the “financial aid” category is: “Students are regularly informed of grant and scholarship opportunities.”

SMEs were asked to use the four-point scale to rate whether they perceived each statement as relevant to the goal of improving outcomes for men of color. See Table 1 for the total number of statements in each content area. In addition to quantitative scores, qualitative feedback on the utility of each content area was collected via an open-ended response option. SMEs used the open-ended responses to provide rationales for low ratings and to suggest additional statements for each content area. The CCSSI was presented to SME’s via *Qualtrics*, a web-based survey distribution software.

Table 1.
Total Number of Statements Presented to Subject Matter Experts, By Content Area

Content Area	Total Number of Statements
Financial Aid	4
Student Support Services	17
Teaching and Learning	13
Institutional Research	8
Minority Male Initiatives & Programs	12
Early Alert Systems	6

Eleven SMEs participated in the validation of the CCSSI. Two types of validation scores were calculated, a content validity index (CVI) for each individual statement, and a scale-level index (S-CVI) for each content area. The CVI is calculated by determining the total proportion of items rated as valid. In this case, given the data were collected from SMEs on a four-point scale, the CVI was computed by dividing ratings of “not relevant” (coded 1) and “somewhat relevant” (coded 2) by those scored as “relevant” (coded 3) and “highly relevant” (coded 4) (Lynn, 1986; Waltz et al., 2005). Thus, if 9 of the 11 SMEs rated an item with a 3 or 4, then the total CVI score would be .818.

There are several criteria that have been set forth by different scholars regarding the threshold for an item to be considered content valid. A widely used means of assessing content validity was established by Lawshe (1975)¹. Lawshe created a sliding scale of CVI scores based on the total number of SMEs. In this case, since there were 11 SMEs, each statement would need a score of .59 or higher to be considered valid. Another commonly used measure was espoused by Lynn (1986). Lynn suggested a higher threshold than Lawshe (1975). Lynn’s suggested that CVI scores for 11 SMEs fall no lower than .78. In recent literature, the higher standard articulated by Lynn (1986) is recommended for stringency (Polit, Beck & Owen, 2007).

¹ It should be noted that the CVI score set by Lawshe was based on a three item scale and that he referred to the score as a Content Validity Ratio (CVR) score.

In determining the validity of the statements in each respective content area (S-CVI), all CVI scores were averaged. A slightly higher threshold for content areas has been set forth in prior research, indicating that a S-CVI score of .80 or higher is needed (Davis, 1992). Other scholars have identified a more rigorous S-CVI score of .90, noting that there should be more rigorous expectations for assessing domains (Polit et al., 2007). The aforementioned CVI cutoff scores of .59 and .78 and S-CVI scores of .80 and .90 were all employed in the analysis of the CCSSI’s content validity. The lower CVI and S-CVI scores are referred to as ‘moderate’ while the higher scores are referred to as ‘strong’.

Results

The results for the CCSSI’s content validation are presented individually for each content area. The first content area examined was financial aid. Table 2 presents means, standard deviations, and CVI scores for each item. This content area was comprised of four items. All items illustrated strong CVI scores, greatly exceeding both Lawshe’s (1975) and Lynn’s (1986) thresholds. Items 1.1, 1.3, and 1.4 all demonstrated perfect CVI scores (e.g., 1.00) while item 1.2 illustrated high rater agreement (e.g., .91). The total S-CVI score for the financial aid items was 0.98. Hereto, the S-CVI score was also strong.

While the items in the financial aid section were all rated strong, SMEs were in agreement that the statements posed did not account for the institutional support that is needed for undocumented students. For example, they noted that many undocumented students can receive state aid but cannot receive federal aid. Thus, they suggested that item 1.1 be replicated but with a focus on state aid. As such, item 1.5 was added: “Students are informed about state financial aid policies that affect their eligibility to receive aid”. In addition, SME’s suggested the inclusion of the following statements: “Students understand how academic progress affects their ability to receive financial aid.” “Students are made aware of financial aid timelines and deadlines”. Both of these statements were also added to the inventory, they are reflected in items 1.6 and 1.7 in Table 2 below.

Table 2.
Financial Aid Content Validity Results

	M	SD	CVI	S-CVI
1.1 Students are informed about federal financial aid policies that affect their eligibility to receive aid.	3.75	.45	1.00	-
1.2 Colleges have emergency /contingency funds to provide small monies to students who have delays in receiving financial aid.	3.42	.67	0.91	-
1.3 Colleges provide students with opportunities to learn about personal financing management.	3.50	.52	1.00	-
1.4 Students are regularly informed of grant and scholarship opportunities.	3.67	.49	1.00	-
1.5 Students are informed about state financial aid	n/a	n/a	n/a	n/a

	politics that affect their eligibility to receive aid.				
1.6	Students understand how academic progress affects their ability to receive financial aid.	n/a	n/a	n/a	n/a
1.7	Students are made aware of financial aid timelines and deadlines.	n/a	n/a	n/a	n/a
Total S-CVI					0.98

The student support services content area was comprised of 17 items. Thirteen of these items demonstrated strong content validity (see Table 3). Four items demonstrated moderate content validity, with scores falling below the .78 threshold but above the .59 marker set by Lawshe (1975). These items included the following statements: “Summer bridge programming is available at the college for men of color” (item 2.1). “New student orientation is available” (item 2.5). “New student orientation is required” (item 2.6). “New student orientation is offered in-person” (item 2.7). Regarding item 2.1, one of the reviewers who rated this item low noted that their college had sponsored a men of color summer bridge program and that the men in the program did not want to be separated from the general summer bridge program.

Regarding items 2.5, 2.6, and 2.7, some colleagues rating the instrument in California noted that, beginning in fall 2014, orientation was mandatory in California community colleges. Thus, they did not perceive these items to be relevant. It is expected that the utility of some items on the instrument will vary by state and regional, which is why the instrument has a ‘not applicable’ response category. One additional statement was recommended for inclusion by an SME: “Colleges partner with local K-12 school districts to support incoming men of color”. This item was added to the inventory. Given the marginal scores of these four items, the overall S-CVI score was .86. This score illustrated moderate scale validity.

Table 3.
Student Support Services Content Validity Results

	M	SD	CVI	S-CVI
2.1 Summer bridge programming is available at the college for men of color.	3.00	0.89	0.73	-
2.2 Summer bridge or other programs are offered to facilitate students’ successful transition to college.	3.50	0.67	0.91	-
2.3 The campus has a mechanism to track the extent to which students use academic support services (e.g., tutoring, computer labs, academic advising, career counseling).	3.17	0.58	0.91	-
2.4 Important academic support services (e.g., math labs, computer labs, writing support) are integrated into remedial and introductory courses.	3.50	0.52	1.00	-
2.5 New student orientation is available.	3.00	0.95	0.73	-
2.6 New student orientation is required.	3.00	1.21	0.64	-
2.7 New student orientation is offered in-person.	3.00	1.10	0.64	-
2.8 Students are required to see an academic advisor/counselor for academic planning.	3.50	0.80	0.82	-

2.9 Intrusive advising strategies are employed by academic counselors.	3.17	0.83	0.91	-
2.10 Multiple AND reliable methods for assessing students' academic readiness are utilized.	3.08	0.90	0.82	-
2.11 Multiple AND reliable methods for assessing student readiness inform course placements.	3.25	0.87	0.91	-
2.12 Entrance advising includes an assessment of students' external pressures and obligations (e.g., familial commitments, work schedule).	3.75	0.45	1.00	-
2.13 Free and accessible mental health counseling services available to students on campus.	3.36	0.50	1.00	-
2.14 College-sponsored trips to four-year institutions are offered for students to receive transfer information and advising.	3.00	0.85	0.82	-
2.15 Transfer information and advising is available to students at all levels (not just to those who are transfer-ready).	3.42	0.51	1.00	-
2.16 Men of color are equitably represented among students who utilize transfer advising services.	3.33	0.78	0.82	-
2.17 Men of color are equitably represented among students who utilize career development services.	3.36	0.67	0.91	-
2.18 Colleges partner with local K-12 school districts to support incoming men of color.	n/a	n/a	n/a	n/a
Total S-CVI				0.86

The next content area examined was teaching and learning. All items examined in this area exceeded both the .59 and .78 criteria. There were a total of 13 items in this content area, all of which illustrated strong content validity (see Table 4). The lowest CVI scores were for items 3.5, 3.7, and 3.9 at .82 for each. These items included: "Relevant student support services are highlighted in course syllabi." "Prospective faculty hires are assessed for their competency to engage diverse student populations." "Men of color are equitably represented among students who participate in learning communities (e.g., first year experience, Puente)". Due to the strength of the item CVI scores, the S-CVI score was strong, at .91. This was above the thresholds established in prior research.

Table 4
Teaching and Learning Content Validity Results

	M	SD	CVI	S-CVI
3.1 Faculty-student interaction is assessed in course and program evaluations.	3.64	.50	1.00	-
3.2 Students' perceptions of affirmation and support from faculty are incorporated into course evaluations.	3.36	.50	1.00	-
3.3 Educators are competent and well-versed in issues that influence the success of men of color.	3.64	.92	.91	-
3.4 Faculty members receive on-going training in culturally relevant teaching strategies.	3.64	.67	.91	-

3.5 Relevant student support services are highlighted in course syllabi.	3.18	.75	.82	-
3.6 Relevant student support services are discussed by classroom faculty.	3.45	.52	1.00	-
3.7 Prospective faculty hires are assessed for their competency to engage diverse student populations.	3.27	1.00	.82	-
3.8 The racial and gender composition of the faculty reflects that of the student body.	3.55	.93	.91	-
3.9 Men of color are equitably represented among students who participate in learning communities (e.g., first year experience, Puente).	3.55	.82	.82	-
3.10 Academic policies are in place for students to repeat coursework without being heavily penalized.	3.30	.67	.91	-
3.11 Men of color are equitably represented on the institution's dean's lists.	3.36	.92	.91	-
3.12 Men of color are equitably represented among students who participate in "prestigious" academic programs.	3.36	.92	.91	-
3.13 Men of color are equitably represented among students who graduate with honors.	3.45	.93	.91	-
Total S-CVI				0.91

The next content area examined focused on institutional research. There were a total of eight items in this content area. All of the items indicated strong content validity. Items 4.1, 4.2, 4.3, and 4.4 had perfect CVI scores. The lowest score was for item 4.7, "Inquiry guides institutional efforts to support men of color". One rater noted that the word 'inquiry' was too generic and that the statement would be improved by being more specific. The term inquiry was included to comprehensively convey a range of information-gathering activities, including research, assessment, and evaluation. To provide more clarity, examples were added after the word inquiry in the statement for specificity. These examples are included in Table 5, which presents the means, standard deviations, and rating scores for this content area.

Table 5
Institutional Research Content Validity Results

	M	SD	CVI	S-CVI
4.1 Enrollment data are disaggregated by race/ethnicity within gender.	3.90	.32	1.00	-
4.2 Persistence data are disaggregated by race/ethnicity within gender.	3.90	.32	1.00	-
4.3 Transfer data are disaggregated by race/ethnicity within gender.	3.82	.40	1.00	-
4.4 Completion data are disaggregated by race/ethnicity within gender.	3.82	.40	1.00	-
4.5 Courses with low outcomes for men of color (by discipline) are identified and targeted for intervention.	3.64	.92	.91	-
4.6 Exit interviews or surveys are conducted with	3.36	.92	.91	-

students who leave the college prematurely (e.g., stop-out, drop-out).				
4.7 Inquiry (e.g., research, assessment, evaluation) guides institutional efforts to support men of color.	3.36	1.03	.82	-
4.8 Men of color’s sense of belonging at the institution is regularly assessed.	3.45	.93	.91	-
Total S-CVI				0.94

Given the preponderance of minority male initiatives and programs on community college campuses, the CCSSI provided 12 statements in this area. All of the statements illustrated strong content validity, with scores of .91 or higher. One statement, item 5.2, “The initiative’s operations are grounded in research on men of color in community colleges”, had a perfect CVI score. Given the high scores in this area, the S-CVI score for statements in this content area was strong at .92. One additional statement was suggested for inclusion in this content area. A SME noted the following statement should be added: “The initiative encourages academic and social development with others beyond the initiative itself”. The rationale provided by the SME was that “validating students is great, but it’s also important to integrate them into the campus as a whole, so that after they finish the program, they feel connected with the campus and don’t use the program as a crutch for whether they engage socially/academically”. The researchers concurred with the importance of including this statement and added it to the CCSSI (see Table 6 item 5.13).

Table 6
Minority Male Initiatives and Programs Content Validity Results

	M	SD	CVI	S-CVI
5.1 The initiative uses inquiry to inform the development of programs, services, and interventions.	3.36	.67	.91	-
5.2 The initiative’s operations are grounded in research on men of color in community colleges.	3.82	.40	1.00	-
5.3 Assessment and evaluation are imbedded into the initiative’s programming and practices.	3.55	.69	.91	-
5.4 The initiative is sustainable.	3.55	.69	.91	-
5.5 The initiative can be scaled to serve all men of color at the institution.	3.55	.93	.91	-
5.6 The initiative has a leadership succession plan.	3.45	.93	.91	-
5.7 The initiative is informed by a strategic plan and a set of standards (e.g., see Harper and Kuykendall, 2012).	3.55	.93	.91	-
5.8 The initiative is <u>strongly</u> supported by the institution’s leadership.	3.55	.93	.91	-
5.9 The initiative’s leadership team has representation from faculty, staff, administration, and students.	3.45	.39	.91	-
5.10 The initiative is adequately resourced (e.g., funding, human capital, space).	3.55	.93	.91	-
5.11 The initiative connects students to men of color who have	3.45	.39	.91	-

graduated or successfully transferred from the institution.				
5.12 The initiative addresses issues of gender and masculinity in its programming.	3.45	.93	.91	-
5.13 The initiative encourages academic and social development with others (e.g., students, faculty) beyond the initiative itself.	n/a	n/a	n/a	n/a
Total S-CVI				0.92

The final content area investigated in this study was early alert systems. This content area was comprised of six total statements. All of the statements had strong CVI scores of .91. Given this, the S-CVI score was also strong, at .91. Two additional points of clarification were suggested by SMEs. Both focused on item 6.6: “Students are aware of the system and how it is used to facilitate their success”. One SME noted that there was a need to be more specific about how students can become aware of early alert systems. This SME suggested that examples such as catalogs, orientations, and websites be added to this statement. These examples were added to the statement (see Table 7). Another SME noted that the item should include a component regarding training. They stated that students need to be both aware of and trained on how early alert systems are used. Given that many early alert systems are operated by faculty, the researchers did not feel that clarification on item 6.6 or an additional statement was needed.

Table 7
Early Alert Systems Content Validity Results

	M	SD	CVI	S-CVI
6.1 The institution has an early alert system in place.	3.55	.93	.91	-
6.2 Faculty and staff are trained on how to use the system.	3.64	.92	.91	-
6.3 Faculty and staff use the system regularly.	3.55	.93	.91	-
6.4 The system allows for timely feedback to students (feedback early on during academic term).	3.64	.92	.91	-
6.5 The system facilitates referrals to student support services (e.g., financial, counseling, academic advising).	3.64	.92	.91	-
6.6 Students are aware of the system (i.e., via catalogs, counselors/advisors, orientations, student success program, websites) and how it is used to facilitate their success.	3.55	.93	.91	-
Total S-CVI				0.91

Conclusion

As previously noted, the purpose of this study was to examine the content validity of the CCSSI. SME panelists were provided with statements and asked to rate the relevancy of the

statements in addressing the success of historically underrepresented and underserved men in education. Overall, the CCSSI indicated strong content validity. The financial aid content area illustrated strong CVI and S-CVI score(s). SMEs recommended the inclusion of three additional questions which were added to the inventory. The student support services content area had four items that illustrated moderate CVI scores, while the remainder of items had strong scores. Most of the items rated as moderate dealt with orientation. SMEs that marked these items as having low relevance noted that orientation will be mandatory in California in 2014. The researchers believe that the “not applicable” response category will sufficiently address this concerns. The S-CVI score for this content area, due to the four moderate items, indicated moderate validity. In addition, one item regarding K-12 and community college partnerships was added to this content area.

All items in the teaching and learning content area illustrated strong CVI scores and had a strong S-CVI score. No further statements were added for inclusion in this content area. Similarly, all items in the institutional research content area had strong CVI scores with a strong S-CVI score. One item, which used the word ‘inquiry’, was identified as needing specificity. Examples of inquiry (e.g., research, assessment, evaluation) were added to this item. The content area on minority male initiatives and programs had high ratings among SMEs. All statements indicated strong CVI scores and had a strong S-CVI score. One item regarding academic and social development opportunities beyond the initiative was added for inclusion. As with the majority of prior statements and content areas, the final content area for early alert system also had strong CVI and S-CVI score(s). No additional statements were identified for inclusion in the CCSSI.

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