Factor Analysis Procedures

Researchers\(^1\) used exploratory and confirmatory factor analyses to develop scales using the fall 2007 data set from the PSRI. Factor analysis is a data reduction technique that allows researchers to identify broad constructs that underlie related survey items. Factor analysis, therefore, reduces a large number of individual items to a more manageable set of factors by combining items that are statistically and conceptually related to one another. The items identified under a single factor can be combined into a “scale,” which will allow for greater ease of interpretation and application. Statistics (alpha reliabilities, means, and standard deviations) within this report are based on the 2013, 2014, 2015, and 2016 data.

**Procedures:** All attitudinal and behavioral variables are coded so that higher numbers signified more agreement or a greater frequency. Exploratory factor analyses were used to consider clusters of items that hung together empirically and conceptually. The scales described below were determined using factor analysis with principal component Varimax rotation.

The factor analytic procedures were used to identify scales both across and within each of the dimensions. Across-dimension scales include items from each of the five dimensions of the PSRI, whereas within-dimension scales include only those items previously identified under a specific dimension (e.g., Striving for Excellence). The across-dimension scales represent the perception of students’ growth on the dimensions measured by the PSRI as a consequence of their time on campus. The within-dimension scales represent general measures of campus climate for each of the five dimensions. The reliability values for each of the across-dimension scales ranges from \(\alpha = 0.72 \) to \(0.91\).

The factors that emerged from this process are detailed in this report. The name given to each factor is followed by the items that comprise the factor. A double asterisks (**) indicates a factor for which student and professional scales are directly comparable—with all component items containing the exact language or analogous language.

In reports to institutions, a factor score is provided. Factor scores are calculated as the mean of all items contained in the factor.

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\(^1\) Much of the work described in this section of the report, particularly the process of identifying across-dimension scales, was conducted by Dr. Eric Dey and Graduate Research Assistants at the University of Michigan.
Student Factors

Across-Dimension Factor

FACTOR: S_GENGROWTH - Students’ Perceptions of their Growth on the Dimensions
\( \alpha = .86 \)
\( M = 3.98 \)
\( SD = .76 \)

Component Survey Items
1. **EXCE_12** - Students develop a stronger work ethic because of their experiences at this campus
2. **SEXCE_13** - My experiences at this campus have helped me to further develop my own work ethic
3. **SACIN_9** - My experiences at this campus have helped me develop a better understanding of academic integrity
4. **SCOMM_7** - My experiences at this campus have helped expand my awareness of the importance of being involved in the community and contributing to the greater good
5. **SCOMM_9** - My experiences at this campus have helped me deepen my commitment to contribute to the greater good
6. **SPERS_11** - My experiences at this campus have increased my ability to learn from diverse perspectives
7. **SETHC_11** - My experiences at this campus have further developed my ability to consider the moral/ethical dimensions of issues
Within-Dimension Factors

Students Dimension: Striving for Excellence

FACTOR: SEXCE_CLIM - Overall Climate for Excellence**
\[\alpha = .91\]
\[M = 3.84\]
\[SD = .89\]

1. **SEXCE_1** - Helping students develop a strong work ethic is a major focus of this campus
2. **SEXCE_3** - The characteristics of a strong work ethic are frequently emphasized and discussed in this campus community
3. **SEXCE_4** - This campus makes clear connections between having a strong work ethic and success in college
4. **SEXCE_5** - This campus makes clear connections between having a strong work ethic and success after college
5. **SEXCE_6** - The campus community has high expectations for students in terms of their personal work ethic in non-academic areas

FACTOR: SEXCE_MOT - Motivation to Develop a Strong Work Ethic
\[\alpha = .80\]
\[M = 3.84\]
\[SD = .76\]

1. **SEXCE_7** - At this campus, faculty members help motivate students to become more self-disciplined, accountable, and responsible in their work.
2. **SEXCE_8** - At this campus, senior administrators help motivate students to become more self-disciplined, accountable, and responsible in their work.
3. **SEXCE_9** - At this campus, student affairs professionals help motivate students to become more self-disciplined, accountable, and responsible in their work.
4. **SEXCE_10** - At this campus, students help motivate students to become more self-disciplined, accountable, and responsible in their work.
5. **SEXCE_13** - My experiences at this campus have helped me to further develop my own work ethic
FACTOR: SEXCE_EXPECT - Communicating Expectations about Excellence**
\( \alpha = .82 \)
\( M = 3.80 \)
\( SD = .94 \)

1. **EXCE_16** - How often do faculty members communicate high expectations for students in terms of their academic work?
2. **EXCE_17** - How often do senior administrators communicate high expectations for students in terms of their academic work?
3. **EXCE_18** - How often do student affairs professionals communicate high expectations for students in terms of their academic work?

FACTOR: SEXCE_WRKETH - Developing a Strong Work Ethic
\( \alpha = .76 \)
\( M = 4.57 \)
\( SD = .59 \)

1. **EXCE_2** - Helping students develop a strong work ethic should be a major focus of this campus
2. **SEXCE_14** - It is important to develop a strong work ethic in my academic activities
3. **SEXCE_15** - It is important to develop a strong work ethic in my non-academic involvements
Students Dimension: Cultivating Academic Integrity

FACTOR: SACIN_CLIM - General Climate for Academic Integrity**
\( \alpha = .81 \)
\( M = 3.99 \)
\( SD = .78 \)

1. ACIN_1 - Helping students develop a strong sense of academic integrity is a major focus of this institution
2. ACIN_3 - Students at this institution are academically honest
3. ACIN_4 - Students at this institution conduct themselves with respect for others
4. ACIN_7 - The campus academic honest policies help stop cheating

FACTOR: SACIN_FAC - Faculty Roles in Academic Integrity**
\( \alpha = .77 \)
\( M = 4.51 \)
\( SD = .60 \)

1. ACIN_5 - Faculty at this institution understand the campus academic honesty policies
2. ACIN_6 - Faculty at this institution support the campus academic honesty policies
3. ACIN_10 - Faculty reinforce the campus academic honesty policies
4. ACIN_11 - Formal course syllabi define academic dishonesty (including such issues as plagiarism, improper citation of Internet sources, buying papers from others, cheating on assignments or tests, etc.)

FACTOR: SACIN_DEVO - Developing Academic Integrity
\( \alpha = .88 \)
\( M = 2.53 \)
\( SD = 1.12 \)

1. SACIN_12 - I have thought seriously about issues of academic integrity since I have been in college
2. SACIN_13 - I have had meaningful discussions about academic integrity with faculty members
3. SACIN_14 - I have had meaningful discussions about academic integrity with senior administrators
4. SACIN_15 - I have had meaningful discussions about academic integrity with student affairs professionals
Students Dimension: Contributing to a Larger Community

FACTOR: SCOMM_CLIM - General Climate for Contributing to a Larger Community**
\[ \alpha = .88 \]
\[ M = 4.00 \]
\[ SD = .91 \]

1. COMM_1 - The importance of contributing to a larger community is a major focus of this campus
2. COMM_2 - The importance of contributing to a larger community should be a major focus of this campus
3. COMM_3 - Contributing to a larger community is a responsibility that this campus values and promotes
4. SCOMM_7 - My experiences at this campus have helped expand my awareness of the importance of being involved in the community and contributing to the greater good

FACTOR: SCOMM_ADVOC - Advocating for Contributing to a Larger Community**
\[ \alpha = .84 \]
\[ M = 3.49 \]
\[ SD = .93 \]

1. COMM_10 - How often do faculty members publicly advocate the need for students to become active and involved students?
2. COMM_11 - How often do senior administrators publicly advocate the need for students to become active and involved students?
3. COMM_12 - How often do student affairs professionals publicly advocate the need for students to become active and involved students?
4. COMM_13 - How often do students publicly advocate the need for students to become active and involved students?

FACTOR: SCOMM_DEVO - Developing a Commitment to Contributing to a Larger Community
\[ \alpha = .72 \]
\[ M = 2.68 \]
\[ SD = 1.01 \]

1. SCOMM_14 - I participate in community-based projects that are officially connected to a course
2. SCOMM_15 - I participate in community-based projects that are not officially connected to a course
3. SCOMM_16 - I have meaningful discussions with other students about the need to contribute to the greater good
Students Dimension: Taking Seriously the Perspectives of Others

FACTOR: SPERS_CLIM - General Climate for Perspective Taking**

$\alpha = .89$

$M = 3.94$

$SD = .77$

1. PERS_1 - Helping students recognize the importance of taking seriously the perspectives of others is a major focus of this campus
2. PERS_3 - This campus helps students understand the connections between appreciating various opinions and perspectives and being a well-informed citizen
3. PERS_4 - It is safe to hold unpopular positions on this campus
4. PERS_5 - Faculty at this institution teach about the importance of considering diverse intellectual viewpoints
5. PERS_6 - Faculty at this institution help students think through new and challenging ideas or perspectives
6. PERS_7 - Students at this institution are respectful of one another when discussing controversial issues or perspectives
7. PERS_8 - This campus has high expectations for students in terms of their ability to take seriously the perspectives of others, especially those with whom they disagree

FACTOR: SPERS_ADVOC - Advocating for Perspective Taking**

$\alpha = .87$

$M = 3.67$

$SD = .83$

1. PERS_15 - Out-of-class activities help students explore diverse perspectives, cultures, and world views
2. PERS_16 - Classes encourage students to research ideas and explore controversial issues with various perspectives using evidence-based claims
3. PERS_17 - How often do faculty members advocate the need for students to respect perspectives different from their own?
4. PERS_18 - How often do senior administrators advocate the need for students to respect perspectives different from their own?
5. PERS_19 - How often do student affairs professionals the need for students to respect perspectives different from their own?
6. PERS_20 - How often do students advocate the need for students to respect perspectives different from their own?
FACTOR: SPERS_DEVO - Developing Perspective Taking

$\alpha = .91$
$M = 4.25$
$SD = .79$

1. **SPERS_11** - My experiences at this campus have increased my ability to learn from diverse perspectives
2. **SPERS_12** - My experiences at this campus have increased my ability to gather and thoughtfully use evidence to support my ideas
3. **SPERS_13** - My experiences at this campus have increased my ability to understand the evidence, analysis, and perspectives of others, even when I disagree with them
Students Dimension: Refining Ethical and Moral Reasoning

FACTOR: SETHC_CLIM - General Climate for Ethical and Moral Reasoning**
\(\alpha = .90\)
\(M = 3.83\)
\(SD = .83\)

1. **ETHC_1** - Helping students to develop their ethical and moral reasoning is a major focus of this campus
2. **ETHC_3** - This campus helps students to develop their ethical and moral reasoning, including the ability to express and act upon personal values responsibly
3. **ETHC_4** - The importance of developing a personal sense of ethical and moral reasoning is frequently communicated to students
4. **ETHC_13** - This campus provides opportunities for students to develop their ethical and moral reasoning in their academic work
5. **ETHC_14** - This campus provides opportunities for students to develop their ethical and moral reasoning in their personal life

FACTOR: SETHC_SUPP - Sources of Support for Ethical and Moral Reasoning**
\(\alpha = .78\)
\(M = 3.70\)
\(SD = .82\)

1. **ETHC_5** - Students feel they can go to faculty members to discuss questions or concerns they have about their own ethical and moral thinking and the challenges they face
2. **ETHC_6** - Students feel they can go to senior administrators to discuss questions or concerns they have about their own ethical and moral thinking and the challenges they face.
3. **ETHC_7** - Students feel they can go to student affairs professionals to discuss questions or concerns they have about their own ethical and moral thinking and the challenges they face.
4. **ETHC_8** - Students feel they can go to students to discuss questions or concerns they have about their own ethical and moral thinking and the challenges they face

**Indicates a factor score that is comparable to professionals’ factor score. The factor is comprised of exact (or analogous) items as the students’ factor.
## Correlation Matrix for 2012-2014 PSRI Student Factors

<table>
<thead>
<tr>
<th>General climate for excellence</th>
<th>Motivation to develop a stronger work ethic</th>
<th>Communicating expectations about excellence</th>
<th>Developing a strong work ethic</th>
<th>General climate for academic integrity</th>
<th>Faculty roles in academic integrity</th>
<th>Developing academic integrity</th>
<th>General climate for contributing to a larger community</th>
<th>Advocating for contributing to a larger community</th>
<th>Developing a commitment to contributing to a larger community</th>
<th>General climate for perspective taking</th>
<th>Advocating for perspective taking</th>
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<th>General climate for ethical and moral reasoning</th>
<th>Sources of support for ethical and moral reasoning</th>
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<td>.561**</td>
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** Correlation is significant at the 0.001 level (2-tailed).
About the PSRI and AAC&U

The Personal and Social Responsibility Inventory (PSRI): An Institutional Climate Measure is a campus climate survey developed originally as part of an initiative called Core Commitments: Educating Students for Personal and Social Responsibility. Sponsored by the Association of American Colleges and Universities and directed by Caryn McTighe Musil, Core Commitments was supported by a grant from the John Templeton Foundation. The initial inventory was developed in 2006 by L. Lee Knefelkamp, Teachers College, Columbia University, who consulted with Richard Hersh, Council for Aid to Education, and drew on the research assistance of Lauren Ruff. The initial inventory was then refined in cooperation with Eric L. Dey and associates at the University of Michigan’s Center for the Study of Higher and Postsecondary Education and refined after Dey’s death by Robert D. Reason, at Iowa State University.

AAC&U is the leading national association concerned with the quality, vitality, and public standing of undergraduate liberal education. Its members are committed to extending the advantages of a liberal education to all students, regardless of academic specialization or intended career. Founded in 1915, AAC&U now comprises 1250 member institutions--including accredited public and private colleges and universities of every type and size.