Adding it All Up: Advising Practices for the Retention of African American Students in Science, Technology, Engineering, and Mathematics (STEM)

Program Outline

- Overview
- Current Issues
  - http://www.azregents.edu/universitysystemquickfacts/default.aspx
  - https://sols.asu.edu/
- Theoretical Foundation/Research:
- Retention and Advising Strategies
- Recommendations
- Questions and Answer

Theory of Dimensions of Institutional Action

- Institutional Commitment to Students
- Educational Commitment
- Social and Intellectual Community
- Effective Student Retention Programs

Theory of Intrusive/Proactive Advising

- Deliberate intervention to enhance student motivation
- Intensive advising designed to increase the probability of student success
<table>
<thead>
<tr>
<th>Postulate</th>
<th>Description</th>
<th>Stage</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Investment of physical and psychological energy in different “objects” that range in the degree of their specificity</td>
<td>Pre-encounter</td>
<td>Blacks “view the world from a Eurocentric perspective”</td>
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<td>2</td>
<td>Involvement occurs along a continuum, with different students investing different amounts of energy in various objects at various times</td>
<td>Encounter</td>
<td>Change in current identity and worldview</td>
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<td>3</td>
<td>Involvement includes quantitative and qualitative components</td>
<td>Immersion-emersion</td>
<td>Embrace new culture and identity</td>
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<td>4</td>
<td>The amount of student learning and personal development is directly proportional to the quality and quantity of involvement</td>
<td>Internalization</td>
<td>Resolve the conflicts “between the old identity and the new black worldview”</td>
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<td>5</td>
<td>The effectiveness of any educational practice is directly related to the capacity of that policy or practice to increase involvement</td>
<td>Internalization—commitment</td>
<td>Accept their blackness</td>
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</tbody>
</table>
References


• Koenig, R. (2009). Minority retention rates in science are sore spot for most universities. Science, 324, 1386-1387


• Museus, S.D., Palmer, R.T., Davis, R.J., & Maramba, D.C. (2011). Special Issue: Racial and Ethnic Minority Students’ Success in STEM Education. ASHE Higher Education Report, 36(6), 1-140


