Overview

The fragmentation of the curriculum into a collection of independently "owned" courses is itself an impediment to student accomplishment, because the different courses students take, even on the same campus, are not expected to engage or build on one another. The student assembles an assortment of courses, each carrying a defined number of credits and assuming a standard time in class. The degree certifies completion of a fixed number of these often disconnected fragments. There is little internal coherence in curricula or programs, and even less a plan for connected learning (AAC&U, 2004).

Improving student learning requires that we provide students a compass and coherent pathways through the complex maze of college, and make learning more practical by using of effective educational practices. The research has identified those practices. Yet the research also indicates that not all practices produce a high impact on student learning; the impact depends on the intensity of the implementation or "treatment" (Kuh, 2008; Swaner & Brownell, 2009). We expect students who participate in high intensity HIPs to show greater learning gains than those participating in low intensity HIPs, and even greater gains than those not participating in HIPs at all. But, how will we know that adopting these "effective" or high impact" practices will achieve the intended student learning outcomes?

Through this work, we seek to define and codify the intensity levels of the high impact practices (HIPs) to help answer this question. This work will enable easy recognition of the dimensions of the practices that better ensure students will achieve learning gains from participating in the HIPs. The key template of information that drives the tool functioning will also provide individual faculty with a planning guide to remap courses and give curriculum committees a guide for program redesign and course approval processes. Initially the markers of learning gains from students participation in high intensity HIPs will include semester- to-semester persistence, credit hour benchmarks/retention, and GPA. Our goal is to link these dimensions eventually to direct measures of student learning outcomes using the VALUE rubrics and e-portfolios.

By defining the dimensions of intensity and characterizing how they are made operational we can begin establishing which HIPs and what intensity levels show the greatest difference in student learning outcomes. We can then codify the HIPs and their intensity to track student participation in them. Showing which levels of HIPs intensity matter, and testing their accuracy at the nine Compass/MEI Project beta sites enables us to refine the coding system and disseminate the tools broadly. We expect our dissemination efforts to increase the number of faculty and other campus educators who apply the HIPs intensity guide to develop/redesign courses and programs, and to use the LEAP essential learning outcomes as the foundation of that work.

We have summarized the components of high impact practices (HIPs) as having three broad dimensions: intentionality, interaction and reflection. We further define and characterize these dimensions in a matrix given as Attachment 1. Below we provide a narrative of each dimension. Attachment 2 provides a diagram of the working design and an example of how it works in action.
Dimensions of High Impact Practices

**Intentionality**

Reaching ambitious goals for learning requires integrating elements of the curriculum traditionally treated as separate—general education, the major, and electives—into a coherent program. Well-designed curricula are more than collections of independent courses; they are pathways for learning. Graduating intentional learners—empowered, informed, and responsible—calls for curricula designed to further learning goals in a sequential manner across all the college years. Goals for learning, transparent to students and professors, justify the curriculum's design (AAC&U, 2005). Thus, a major part of the intensity of all three dimensions is that the purpose and expected outcome from participating in the HIP learning experiences be clearly communicated to the students. We would then expect students to be able to articulate the learning objectives addressed at milestones throughout their college experience e.g., at the start and end of courses, at the end of each academic year of study, at the end of their program of study, and at degree completion.

Intentionality, then, is the action of establishing coherent learning experiences and making sure the learning objectives of these experiences are transparent to students. This then fosters students' ability to integrate and apply knowledge, and enables students to recognize the fit between the content, assignments and activities of the learning experience; the understand the expected learning outcomes from engagement; and connect each to the larger goals of the curriculum. This means making sure that students know "why an outcome is to be learned and reminding faculty who teach to have that discussion with students (Kean, 2008 pg.3). Thus, the course, program, major, or whole curriculum — and the infusion of the HIP(s) into them—is structured, sequenced, aligned, made relevant to the learners, and made relevant to the needs of the communities/societies in which students may be engaged. Intentionality is critical to the intensity of the other two dimensions discussed below.

Courses, programs, curriculum and co-curriculum are made intentional when learning:

- is structured appropriately, students see the connections between their learning within various courses and across both programs and the overall curriculum, such as general education, the major and other degree requirements;
- follows a progression that begins with learners existing knowledge base and moves them to increasingly more sophisticated levels of learning, it better ensures that students can scaffold the knowledge needed to comprehend more advanced concepts;
- aligns to achieve program objectives and programs align to meet overall curriculum objectives, learners can begin to make sense of what often seems like discrete bits of knowledge with no connections between them;
- is viewed by students as relevant to their lives—vis-à-vis the contemporary or enduring nature of the topic or a personal connection with the topic—it is more likely that they will recognize and value the lessons to be learned;
- expands to include learning activities in the community, the experience needs to be inclusive and respectful of the needs of the community and the community needs to be fully aware of and help facilitate having the activities achieve the expected learning outcomes.
Interaction

Most college professors are never trained to be teachers. As doctoral students, their dissertations demand research; teaching skills are assumed to be easy for intelligent people to acquire. Interest in how learning occurs has remained largely confined to psychologists and schools of education. Yet the research is clear that meaningful interaction between faculty and students play a large role in student learning outcomes (Swaner and Brownell, 2009).

Learning does not occur in a vacuum; students intact with faculty, other campus educators, other students, as well as communities and the public/private agencies within them. The interaction between students and these various "others" is also approached from a variety of perspectives. For instance, faculty members socialize students to their discipline as both teachers of content and as mentors. Yet, they are also advisors and critical reviewers of students' work. Students' interaction with campus officials, peers and community members who are similar and dissimilar to themselves also enhance or impede their learning. Learning occurs in both formal and informal ways. These different types of interactions contribute to learning when:

- faculty offer mentoring rather than simple oversight of the learning activity;
- students' life experiences are understood and used to foster deeper student engagement in their learning;
- campus officials model respectful engagement with the communities with which students may interact; and
- differences between the students and those with whom they interact are used to enlarge students' understanding of people from different cultures and backgrounds—help students respectfully use these differences as learning resources.

Reflection

A student's sense of how knowledge relates to life grows by grappling with untidy social questions (AAC&U, 2005). According to Campus Compact (2001) "[Only] once the outcomes are established and learning activities appropriately structured, [can] faculty ... design reflection. Reflection activities can be incorporated before, during, and after the ... experience." Fostering and demonstrating learning from reflection can be achieved through a variety of methods including journals and a student developed pre-activity proposal of expected learning outcomes and then compared with achieved outcomes. Campus Compact further asserts that, "reflection activities at different stages of the [HIP] experience may contribute to the intended learning outcomes in different ways." Reflection is characterized by those who study informal learning as "involving] returning to experience; attending to feelings; and evaluating experience."

Thus, learning is enhanced through reflection when students:

- debate proposed solutions to the social problems addressed in the learning experience;
- engage in structured consideration of the course content as it relates to self, others, and the larger society;
- encounter knowledge in new contexts and open-ended, unscripted problems;
- prepare personal writing that requires self-reflection upon a wide variety of subjects, and that situates the self in relation to others;
- are able to combine the new disciplinary/interdisciplinary knowledge of the course or program with their existing knowledge, as well as their personal and social experiences; and
- assess their own knowledge development and knowledge integration in ways that are appropriate for the course, program content and associated activity.
## INTENTIONALITY

<table>
<thead>
<tr>
<th>Elements of the dimension</th>
<th>Description of the element</th>
<th>Characteristics of the dimension in action</th>
</tr>
</thead>
</table>
| **Structure**            | • Learning outcomes of the course are mapped onto the learning outcomes of the program curriculum or the overall college/university curriculum  
                          • The course is configured in ways to complement the knowledge to be gained from other parts of the program or overall curriculum | As architects of the curriculum, faculty members—individually and collectively:  
                          • Set clear, challenging interrelated goals for their courses, academic programs, and student learning  
                          • Design coherent curricula and employ teaching practices to help all students achieve the goals  
                          • Assess their own and student success regularly  
                          • Use assessment results to improve teaching and learning  
                          • Assume responsibility for the entire curriculum  
                          • Focus centrally on goals for student learning in both courses and programs  
                          • Embody life-long learning by engaging in professional development to improve teaching |
| **Sequencing**           | • Knowledge students are expected to gain is presented in an increasingly challenging manner | Establish progressively challenging subject matter and assignments, and clearly communicate the learning expected to students |
| **Alignment**            | • In- and out-of-class assignments and activities are configured in ways to complement one another | Create challenging assignments and activities that build on one another to help students achieve course learning objectives |
| **Relevance to Student** | • Topics reflect current social issues  
                          • Perceives as valuable enough to justify commitment  
                          • Stimulates further learning and achievement | Teach knowledge but also ask students to apply it  
                          • Stress inquiry and engagement with unscripted and contested problems, including those drawn from real life  
                          • Develop and value collaborative as well as individual achievement |
| **Relevance to Society/Community** | • Addresses big and/or enduring social challenges  
                          • Addresses challenges/issues deemed important to the engaged community/social entity |  

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1 This chart is designed to explicate the intensity dimensions of high impact practices to aid in developing a computer-based tool that will enable campus officials to track the location, participation and ultimately, the benefit of HIPs. The intensity dimension is intended to help determine whether the benefit (or lack thereof) of a given HIP is a function of its level of intensity. The goal is to test whether these dimensions can be used to describe the intensity of HIPs and whether they can also be used to guide the adoption of HIPs by faculty and other campus educators.

2 These descriptions focus on faculty planning and implementation. It is assumed that students are also doing their part by completing the assignments and following the guidance and feedback given by faculty and other involved educators, and that the peer feedback and interaction is mediated by the educators to achieve the expected learning outcomes.

3 Some of these characteristics are derived from AAC&U’s Greater Expectations report which described the intentional learner as one who is informed, empowered and responsible. The report argued that to develop this intentional learner, faculty and institutions have to be intentional about developing such learners. Many of the characteristics listed are those outlined in the Greater Expectations as A Nation goes to College.
## ATTACHMENT 1 (CONTINUED) MAKING EXCELLENCE INCLUSIVE TOOL—INTENSITY DIMENSIONS OF HIGH IMPACT PRACTICES (CONCLUDED)

### IN SEARCH OF HIGH INTENSITY, HIGH IMPACT PRACTICES

<table>
<thead>
<tr>
<th>Interaction (with)</th>
<th>Description of the element</th>
<th>Characteristics of the dimension in action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Faculty</strong></td>
<td>• As mentor</td>
<td>• Encourage curiosity about the subject matter by demonstrating genuine concern for students' learning in the context of the material</td>
</tr>
<tr>
<td></td>
<td>• As provider of feedback about work</td>
<td>• Build student trust in his/her ability through honest and constructive feedback</td>
</tr>
<tr>
<td><strong>Peers</strong></td>
<td>• Similar to self</td>
<td>• Employ the broad diversity of the student body as a learning tool in intentional and respectful ways</td>
</tr>
<tr>
<td></td>
<td>• Dissimilar to self</td>
<td>• Provide opportunities for students to collaborate productively with people who are unlike themselves</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Assist students in making meaning through their interactions with peers while deepening their understanding of the subject matter</td>
</tr>
<tr>
<td><strong>Social Entities</strong></td>
<td>• Schools (K-12, community colleges, four-year colleges/universities)</td>
<td>• Facilitate students' understanding of complex organizations and structures</td>
</tr>
<tr>
<td></td>
<td>• Communities (e.g. homeless, HIV patients, senior citizens)</td>
<td>• Cultivate respect for the complex identities of others, their histories, and their cultures</td>
</tr>
<tr>
<td></td>
<td>• CBO (e.g. community centers, social service agencies)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Governing bodies (e.g. legislatures, school boards, social service boards)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitate students' understanding of complex organizations and structures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cultivate respect for the complex identities of others, their histories, and their cultures</td>
</tr>
<tr>
<td><strong>Reflection</strong></td>
<td></td>
<td>• Instill intellectual honesty and engagement in ongoing learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop respect for and appropriate use of intuition and feeling, as well as thinking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop skills in interpreting, evaluating, and using information discerningly from a variety of sources</td>
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<tr>
<td><strong>Action</strong></td>
<td></td>
<td>• Promote active participation as a citizen of a diverse democracy</td>
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<tr>
<td></td>
<td></td>
<td>• Foster student acceptance of their responsibility for society's moral health and for social justice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitate discernment of consequences, including ethical consequences, of decisions and actions</td>
</tr>
<tr>
<td><strong>Knowledge Integration</strong></td>
<td></td>
<td>• Aid students in developing a deep understanding of one's self and one's multiple identities that connect habits of mind, heart, and body</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Enhance integrating knowledge of various types and understanding complex systems</td>
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</tbody>
</table>
Attachment 2 Making Excellence Inclusive Tool—Establishing and Tracking High Intensity, High Impact Learning Practices in the Curriculum and Co-curriculum
Working Design and Sample Sequencing

Working Design

Essential Learning Outcomes

High Impact Learning Practices

Intensity of Program Elements

The Curriculum and Co-Curriculum

First Year Experiences

Second Year Experiences

Third Year Experiences

Fourth Year Experiences

Authentic assessments demonstrate increasing sophistication in the essential learning outcomes over time and provide feedback for educational improvement—for students, programs & curriculum

Sample Sequencing

Essential Learning Outcomes—Knowledge of human cultures and the natural world; skill in analysis, quantitative literacy, and communication; personal and social responsibility; and integration across these domains

High Impact Practices e.g., service learning, UG research, learning communities, first-year and (pre for) capstone experiences

High Intensity implementation of the practices, i.e., intentionality, interaction, reflection dimensions

E-portfolios capture student learning at early, intermediate, and advanced levels—key milestones—and foster reflection and knowledge integration throughout the 2- or 4-year college experience