Evaluating High-Impact Practices

Meg Gorzycki, Ed.D.

Background

The concept of "High-impact" practices in education pertains to exercises and activities aimed to improve college students' achievement and success. These activities and practices are characterized by student engagement in the learning process, as exemplified by participation in learning communities, first-year seminars, collaborative assignments and projects, and writing intensive courses.[i] High-impact practices represents curriculum and instruction that are explicitly linked to learning objectives and outcomes, and that consistently clarifies expectations and their rationales.

The effect of active learning practices is influenced by several variables, among them is the consistency of their implementation across all levels and disciplines. Measuring the efficacy of high-impact practices is concerned not only with the scope of utilization (which may be captured in the number of faculty who report their use, or students who recall the experience), but with the quality of the implementation and effect it had on student learning.

Kuh's Foundation

Gathering data from both faculty and students allows researcher to observe the degree to which instructors' and students' perceptions of high-impact practices are shared. Kuh's list of high-impact practices provide a starting point, they include:[ii]

- **First-year Seminar and Experiences** (programs that bring first-year students together to develop academic skills)
- **Common Intellectual Experiences** (required common courses such as gateway courses)
- **Learning Communities** (students and faculty meet to explore subjects in "linked" courses as to apprehend the "big picture" in related or sequenced courses)
- **Writing-Intensive Courses** (occurring at all levels they focus on writing for various audiences and in various disciplines
- **Undergraduate Research** (introduces students to controversies in disciplines, research methods, and scholarly use of evidence)
- **Diversity/Global Learning** (the goal is to cultivate respect for diversity and may involve studies abroad or intercultural and ethnic studies)
- **Service/Community-Based Learning** (which fosters the application of learning in real-life settings, where students may improve their awareness of conditions that impact the quality of life and work outside the classroom)
- **Internships**. (usually related to careers, these projects allow students to receive guidance from professionals in the field as they work)
- **Capstone Courses and Projects** (these courses, papers, and projects require students to synthesize knowledge from their courses and experiences, summarize salient and vital knowledge, speak to its significance, and describe its applications)

Kuh's list is limited in the practices that many instructors would find highly engaging. Additional high-impact practices, therefore, may include:

- **Simulation/Role Playing** (these experiences may involve technological aids, such as robotic patients on which to rehearse nursing skills, or simple interactions in which students play the part of the professional for which they are being trained; and, in both instances, de-briefing and reflection on experience is crucial to learning)
- **Reflective Learning** (based on focuses students' attention on the meaning and significance of their experiences, and provides them with a venue in which to explore attitudes, beliefs, assumptions, and values)
- **Reading-Intensive Coursework** (the objectives are to explicitly instruct students on how experts in the field approach scholarly literature, how critical reading is conducted and benefits citizens and consumers, and to engage in exercises that target discrete metacognitive and cognitive tasks for the purpose of improving students' reading proficiency)

Simulation and Role Playing

Widely used by instructors who teach clinical skills to students, simulation and role-playing immerse students in mock clinical situations wherein they are challenged to demonstrate their skills and knowledge as if in a real clinical environment.[iii] [iv] [v]Simulation and role-playing is often accompanied by a de-briefing session in which instructors guide students through their experiences for the purpose of clarifying their choices and identifying their strengths and areas of growth.[vi] [vii] The debriefing is a form of reflective learning, which situates student learning in immediate and personal experiences.

Reflective Learning

Reflective learning directs attention to the learning process itself and immerses students in thinking about the sufficiency of their understanding. It may engage students in the exploration of their own approach to acquiring, articulating, testing, analyzing, synthesizing, evaluating, and applying knowledge. Reflective learning is "triggered by an experience, which creates and clarifies meaning in terms of self, and which results in a changed conceptual perspective."[viii] Reflected learning is often an adjunct to field work, clinical assignments, or community service.[ix] It is formal instruction in which teachers guide students through a set of inquiries that compel students to think about the value of their experiences and improve their understanding of what separates the novice form the expert.[x] [xi] [xii] A key objective in the guided reflection is to increase students' self-awareness and sensitivity to subtle, yet, important conditions, ideas, values, conflicts, and realities they encounter in the field.[xiii] [xiv]

Reading-Intensive Coursework

Kuh identified writing-intensive courses as a high-impact practice, and scholars have illuminated the relationship between writing proficient and academic reading skills.[xv] [xvi] Some have documented the relationship between reading and the improvement of critical thinking,[xvii] and the need to improve students' proficiency with discrete cognitive tasks involved in academic and critical reading.[xviii] Others have noted that proficiency in academic reading is vital to college success, and that there exists a need for intensive and explicit reading instruction in undergraduate studies.[xix] [xx] The National Survey of Student Engagement (NSSE) regards the identification of key information from reading assignments and the summary of learning from course materials as elements of student engagement and high-impact practice.[xxi] Several investigations have determined that reading instruction in undergraduate courses improves comprehension and thus the ability to successfully complete college level research and studies.[xxii] [xxiii] [xxiv] [xxv]

Suggested Methods and Instruments

Surveys

As noted, the NSSE survey of student experiences captures quantitative data that represents the frequency with which students are promoted to engage in a particular activity. For example, NSSE questions have included those related to the number of times students have been asked to prepare a draft paper before submitting it for a summative grade, and come to class without completing reading assignments.[xxvi] The NSSE is complimentary with the Faculty Survey of Student Engagement (FSSE), which makes it possible to compare and contrast students' and faculty perceptions of students' learning behavior.[xxvii] Neither NSSE nor FSSE, however, accommodate open-ended questions, and so the data does not lend itself to qualitative studies.

To assess the quality of high-impact practices, institutions may benefit richly from administering surveys to both faculty and students that explicitly target the practices listed above, and that include survey items that "granulate" the experience and offer the opportunity for open-ended comments that may illuminate details about the participant's perceptions, values, and attitudes, as well as the conditions that impact practice. The following samples represent a survey for both students and faculty that each contain prompts that granulate the experience and invite comments, and are based on Kuh (2008).

Participants are directed to select the number on a five-point Likert Scale that best represents their response after they indicate whether they partook in the activity described, as follows:

1 (Strongly Disagree); 2 (mildly Disagree); 3 (Equally Agree/Disagree); 4 (Mildly Agree); 5 (Strongly Agree)

A Sample Survey of Sophomores' Experiences with High-Impact Practices (to be taken following completion of two years of study)

Table 1: Sample of Student Survey of High Impact Experiences at the End of Their Second Year

Item	Response				
1a. I participated in a first-year seminar (If yes, please answer items 1b-1g)	Yes	No			
1b. The first-year seminar improved my approach to critical thinking	1	2	3	4	5
1c. The first year seminar explicitly guided and improved my reading skills	1	2	3	4	5
1d. The first-year seminar consistently addressed the differences between novice and expert approaches to knowledge and research in the discipline	1	2	3	4	5
1e. The first-year seminar explored highly relevant issues and controversies	1	2	3	4	5
1f. The first-year seminar explicitly helped me improve my writing skills	1	2	3	4	5
1g. The first-year seminar improved my understanding of the knowledge and skills that I should refine as I progress towards my degree	1	2	3	4	5
2a. I took a writing-intensive course during my first two years of study at this institution (if yes, please respond to items 3b-3g)	Yes	No			
2b. The writing-intensive course helped me grasp the differences in various types of writing for various audiences and the requirements for each	1	2	3	4	5
2c. The writing-intensive course improved my ability to find key sources needed for research	1	2	3	4	5
2d. The writing-intensive course improved my ability to discern the credibility and biases of sources	1	2	3	4	5
2e. The writing-intensive course required multiple drafts of papers before submitting them for summative grades	1	2	3	4	5

2f. The writing intensive course required at least one research paper of at least 20 pages	1	2	3	4	5
2g. The writing-intensive course improved my ability to organize, articulate, and defend assertions	1	2	3	4	5
3a. I took at least one course that studied diversity or focused on a world culture other than my own	Yes	No			
3b. The course on diversity or world culture explored issues that were immediate and relevant to contemporary society	1	2	3	4	5
3c. The course on diversity or world cultures improved my ability to fairly consider multiple perspectives	1	2	3	4	5
3d. The course on diversity or global culture improved my awareness of my own need to confront assumptions and biases	1	2	3	4	5
3e. The course on diversity or global culture improved my knowledge about world geography and its impact on culture	1	2	3	4	5
3f. The course on diversity or global culture improved my knowledge about history and its impact on contemporary culture and conflict	1	2	3	4	5
3g. The course on diversity or world culture required students to engage in conversation with local diverse communities off campus	1	2	3	4	5
4a. I participated in at least one learning community during my first two years (if yes, please respond to items 5b-5g)	Yes	No			
4b. The learning community consistently focused on how learning in the course was relevant to the "real world"	1	2	3	4	5
4c. The instructor participated in at least 50% of the learning community meetings	1	2	3	4	5
4d. The learning community helped me link knowledge and skills across multiple courses an subjects	1	2	3	4	5
4e. The learning community gave me a deeper understanding of the course material	1	2	3	4	5
4f. The learning community deepened my understanding of how professionals in the field operate	1	2	3	4	5
4g. The learning community helped me bond with classmates and study partners	1	2	3	4	
5a. I took at least one class in my first two years that regularly used role playing and/or simulation (if yes, please respond to prompts 5b-5g)	Yes	No			
5b. The role playing/simulation exercises targeted key skills in a profession	1	2	3	4	5
5c. The role playing/simulation was preceded by clearly articulated instructions and purpose	1	2	3	4	5
5d. The role playing/simulation was always followed by debriefing and discussion	1	2	3	4	5
5e. The role playing/simulation challenged me to think critically about their judgments and decision-making processes	1	2	3	4	5
5f. The role playing/simulation challenged me to evaluate the quality of their communication with others	1	2	3	4	5
5g. The role playing/simulation helped me understand the difference between a novice and an expert in the field	1	2	3	4	5

Getting the perspective of the instructor is vital to understanding the quality institution's integration of high-impact practices, as it may reveal disparities between the faculty's intended outcomes and the students' actual experiences. Administering parallel surveys helps to illuminate the extent to which faculty and students share a consensus about their classroom experiences. ***It is vital to ensure that the sample population of instructors are the same instructors who routinely teach lower division courses for which many of the high-impact practices are targeted.***

The following table provides a sample faculty based on items four and five in the sample student survey.

Table 2: Sample Faculty Survey of High Impact Practices in Lower Division Courses

4a. I facilitated at least one learning community in the last two years (if yes, please respond to items 5b-5g)	Yes	No			
4b. The learning community consistently focused on how learning in the course was relevant to the "real world"	1	2	3	4	5
4c. I participated in at least 50% of the learning community meetings	1	2	3	4	5
4d. I steered the learning community toward linking knowledge and skills across multiple courses an subjects	1	2	3	4	5
4e. I structured the learning community to give students a deeper understanding of the course material	1	2	3	4	5
4f. I designed the learning community to deepen students' understanding of how professionals in the field operate	1	2	3	4	5
4g. I encouraged students in the learning community to bond with classmates and study partners	1	2	3	4	
5a. I taught at least one class in the last two years that regularly used role playing and/or simulation (if yes, please respond to prompts 5b-5g)	Yes	No			
5b. I designed the role playing/simulation exercises to target key skills in a profession	1	2	3	4	5
5c. I preceded each role playing/simulation by clearly articulating instructions and purpose	1	2	3	4	5
5d. I followed each role playing/simulation with by debriefing and discussion	1	2	3	4	5
5e. I designed the role playing/simulation to challenge students to think critically about their judgments and decision-making processes	1	2	3	4	5
5f. I structured the role playing/simulation so students could evaluate the quality of their communication with others	1	2	3	4	5
5g. I designed the role playing/simulation to help students understand the difference between a novice and an expert in the field	1	2	3	4	5

Focus Groups

Focus groups allow for individuals to provide information not easily captured by surveys and cloze questions. Focus groups direct the participants to consider the issues, their opinions, and insights about a relatively narrow concern.[xxviii] In planning the focus group, researchers will make decisions about group membership, questions, follow-up questions, and analysis of data based on the purpose of the research itself. As is common in all research, researchers will select individuals most immediately concerned with the scope and topic of the study.

Why are students in this study limited?

- This study is designed to target the first and second year student experiences
- Since many high-impact practices concern the first years of undergraduate study, getting students' impressions before they have a chance to compare them with experiences in upper division courses may be important to researchers
- Research indicates that most students who drop out of college will drop out in their first or second year, and so researchers wanted to discover whether the use of high-impact practices correlated with their institution's dropout rates[xxix]

In this example, focus group questions focus on the same items as does the survey. The focus group may examine items in depth by asking students to say more about their experiences. For instance, they might be prompted to explain what they mean when they claim to have improved their judgement and decision-making processes; or, they might be prompted to say more about what they thought were the benefits of bonding with classmates and study partners.

Ideally, the focus group is small, with 5-8 people, which will allow for everyone to have enough time to say what they want to say.[xxx]

Demographic Questions

Since students' and faculty life experiences vary, and since those experiences may bear upon their experiences in and thoughts about learning and teaching, it is helpful for researchers to gather demographic data. Questions about age, gender, family economic background, ethnicity, whether one graduated from a public or private high school, and how many hours a week one works might shed light on patterns of attitudes in student populations. Depending on the scope of the study, it might also be useful to ask students to identify the instructional methods most used in their high schools.

Demographic information about faculty might also shed light on the extent to which instructors use high-impact practices. Instructors, for instance, might be asked to identify whether thy have had any special pedagogical training in course design, teaching writing skills, facilitating community learning, or proctoring internships.

Syllabi Review
A third source of data regarding the extent to which institutions practice high-impact practices are course syllabi. A sample of syllabi may also provide researchers with the rationale for their use if instructors have made a habit of explaining their use to students.

The use of syllabi to reveal the extent to which high impact practices has two key limitations:

- Unless an institution mandates that all syllabi speak to teaching methods and have familiarized their faculty with what constitutes high-impact practice, syllabi may not reveal the use of high-impact practices, even when they are used
- The explicit reference to high-impact practices in the syllabi do not represent the quality of instruction that utilizes a particular high-impact practice

Samples of Student Work
High-impact practices often generate articulations of student learning, such as compositions, posters, oral presentations, and demonstrations that embody evidence of learning and achievement. The qualitative study of student work is labor-intensive; however, it may yield information vital to the

institution's understanding of students' achievements and areas of growth, and may spark critical conversations among instructors that lead to a consensus about learning outcomes, assessments, instruction, and standards of proficiency.

Three by Three

This investigation calls for each instructor in the department to submit nine samples of student work that articulates learning as a result of participating in a high-impact practice; three samples represent excellent or highly accomplished work; three represent emerging or average work; and, three represent work that is in adequate or unaccomplished. The samples are then organized into the categories based on the high-impact practice they involve.

The department members, or a select committee of department members, may then read the samples and prepare a report based on findings. The purpose of the report is not to document the number of times faculty utilize high-impact practices, but to describe academic achievement associated with it.

The department or committee members may speak to:

- The strengths of students' work
- Discrete areas of students' academic deficiencies
- The standards used to assess the quality of student work
- The alignment between the articulation of student learning and the assignment's objectives

The advantages of this approach to assessing the use of high-impact practices is that is allows for all expectations for practice, students achievement, and standards of assessment to accommodate the unique needs, resources, and concerns of a given community. In confining the study of student achievement to a particular department, the data may be immediately used to make revisions in curriculum and instruction, and to invest resources in faculty training relative to pedagogical practice. When used as one part of an institutions study, it may be useful to determine whether faculty training is necessary or whether changes in policy are indicated.

Endnotes

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