Kathleen M. Goodman, Marcia Baxter Magolda, Tricia A. Seifert, and Patricia M. King review both quantitative and qualitative data to understand students' college experiences and provide powerful information to guide educators.

By Kathleen M. Goodman, Marcia Baxter Magolda, Tricia A. Seifert, and Patricia M. King

# Good Practices for Student Learning:

# Mixed-Method Evidence From the Wabash National Study

MAGINE THIS SCENARIO. You walk into your office at 8:00 on a Wednesday morning. The flashing light on your phone signals voicemails waiting, and the pile of papers in your inbox is overflowing. You take a sip of the coffee you brought with you and try to quickly handle the most pressing issues of the day. Once your computer boots up, you see that your e-mail inbox is just as cluttered as the one on your actual desktop—38 new messages await. One that catches your eye contains the minutes from yesterday's division meeting where the vice president of student affairs reported some grim news: the financial situation at the university continues to be dire, so there is a hiring freeze in all departments. So much for replacing that assistant director in your office. Furthermore, the State Board of Regents is demanding increased accountability and the vice president is looking for all departments in the division to demonstrate more clearly that their work is preparing students for life after college. This scenario is probably not that difficult to imagine because it reflects many of the current issues faced by those who work in higher education: a grueling workload, financial constraints that impact human resources, and external pressure for accountability that links the work you are doing to desired college outcomes. Let us continue with the scenario for a moment.

After extinguishing a few proverbial fires and answering the most pressing messages of the day, you settle in to plan your next program. You pull out the file from last year that shows students found the program satisfactory, so you decide to do pretty much the same thing this year, hoping that will meet the regents' requirement for accountability. Maybe you'll switch it up a little by adding a great idea that you heard about at the American College Personnel Association or read in About Campus to show that you are innovative. Thank goodness you kept good notes last year and you know exactly what needs to be done and in what time frame. Unfortunately, you have fewer staff this year, so you see some long workdays in your near future. This is the "work harder" approach that is typical for many who work in higher education. But what if you chose the "work smarter" approach that is often held up as the wise alternative to working harder? How would

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# In this article, we describe findings from the data and draw inferences to provide recommendations for practices that can be adapted on other campuses.

Since 2006, 19 institutions across the United States have been trying to figure out how to work smarter through their participation in the Wabash National Study of Liberal Arts Education. Drawing on data from the first year of the study, the robust, mixed-methods study we report here evaluated growth in the first year of college by surveying 4,501 students as they entered college and then again at the end of the first year. In a 2007 About Campus article explaining which learning outcomes were chosen as the focus of the study, Patricia King Marie Kendall Brown, Nathan Lindsay, and JoNes VanHecke describe seven integrated learning outcomes associated with liberal arts education: critical thinking, moral reasoning, psychological well-being, socially responsible leadership, intercultural development, the inclination to inquire, and integrative learning. Therefore, the measures used in the Wabash National Study were valid assessments focused on these outcomes. The research team also conducted qualitative interviews with 315 students at six of the institutions. During the interviews, the researchers asked students about the educational experiences that they regard as key to their growth and why these particular experiences are relevant.

These data will be very helpful to institutions as they are called upon to provide evidence of student learning rather than student satisfaction. Those 19 institutions will have indisputable data that demonstrate

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how they have prepared their students for life after college. Just as importantly, they will be able to link those outcomes to specific campus practices—both in and out of the classroom—that spur the greatest growth on those outcomes. This is the information that will allow them to work smarter. In this article, we describe findings from the data and draw inferences to provide recommendations for practices that can be adapted on other campuses.

#### THE VALUE OF MIXED METHODS

WO TEAMS OF RESEARCHERS simultaneously gathered qualitative and quantitative data based on complementary research designs focused on different aspects of the same research question: What are the practices and conditions that foster student learning on liberal education outcomes? We believe that collecting and analyzing both quantitative and qualitative data within a single research study provides considerable advantages compared to conducting either method alone. First, it minimizes the limitations of each method by capitalizing on the strengths of the other method. For example, surveying 4,501 students offers breadth, while interviewing 315 students offers depth. Second, it strengthens the weight of the conclusions if the findings are cross-validated, which they were in this study. Finally, mixed methods provide multiple lenses to reveal and understand the complexities associated with any social phenomena, including student learning. The findings from the Wabash Study provide a nuanced understanding of the practices that foster student learning and provide an updated understanding of the good practices that have guided higher education work for many years. Furthermore, the findings highlight student voices, illustrating how they make meaning of their campus experiences.

#### THE EVOLUTION OF GOOD PRACTICES

"HIGHER EDUCATION IS IN THE THROES OF A MAJOR TRANSFORMATION. Forcing the transformation are economic conditions, eroding public confidence, accountability demands, and

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demographic shifts resulting in increased numbers of people from historically underrepresented groups going to college. More people are participating in higher education than ever before, yet the resources supporting the enterprise are not keeping pace with the demand." These words ring as true today as when they were written in the preamble of the American College Personnel Association's Student Learning Imperative (SLI) in 1996. The SLI clearly articulated a commitment to student learning and to working collaboratively as a means to foster student learning in the wake of economic turmoil and demands for accountability.

In 1987, Arthur Chickering and Zelda Gamson suggested seven good practices for faculty to improve undergraduate education, including student-faculty contact, active learning, and high expectations. Soon after the release of the SLI, members of the American College Personnel Association and the National Association of Student Personnel Administrators worked together to create Principles of Good Practice for Student Affairs, grounded in research about college students. This new list of good practices was meant to specifically guide student affairs practitioners in their quest to "create the conditions that enhance student learning and personal development," a goal put forth in the SLI. As Gregory Blimling and Elizabeth Whitt point out in their 1999 book Good Practices in Student Affairs, the suggested practices were also a response to external forces for change, including changing student populations and calls for accountability regarding learning outcomes. Active learning, setting high expectations, and creating supportive, inclusive communities were among the suggested good practices in student affairs to foster student learning.

The sets of good practices for faculty and student affairs professionals have a great deal of overlap, serving as a compass for institutional improvement efforts. While the Association of American Colleges and Universities has recently stressed the importance of institutions making "high-impact" activities such as learning

communities and service learning available to all students, Mark Salisbury and Kathy Goodman's analysis of the Wabash Study data in *Diversity and Democracy* suggests that the activities themselves have little direct influence on student learning. Rather, the high-impact activities provide opportunities for students to come into contact with the good practices described earlier. The advantage of focusing on good practices is that they can be incorporated into any program, practice, or course on campus.

The Wabash Study used the good practices articulated by Chickering and Gamson, ACPA, and NASPA to develop survey questions about student experiences and link them to outcomes. The Wabash Study interviews simultaneously offered students an open-ended forum to describe the nature and meaning of the practices they viewed as central to their learning.

#### WHAT MATTERS TO STUDENTS

THE FINDINGS OF BOTH METHODS pinpointed three good practices that promote student learning: academic challenge and high expectations, diversity experiences, and good teaching/high-quality interactions with educators. The quantitative findings demonstrate the connection between good practices and student-learning outcomes. The qualitative findings provide a nuanced understanding of how students make meaning of these experiences. Students' narratives conveyed the significance of these experiences. Together, the survey findings and student narratives reveal good practices to promote learning.

# Academic Challenge and High Expectations

Students told us in the interviews that they valued academic experiences that challenged them to analyze ideas and explore their own thoughts. The academic experiences that challenged students to analyze ideas and explore their own thoughts pushed them to think critically and

wrestle with difficult material, use multiple perspectives, and take the viewpoints of others into account in refining one's own interpretations. Susan's first-year writing course illustrates this kind of experience:

I really like my writing seminar on Muslim women because it's so relevant to our situation right now. Our professor is kind of intense, so I don't necessarily always like going to class, but I really enjoy the topic. And sometimes we'll have discussions in class that are so interesting because you don't always get that perspective of those women. You know, we do have these harsh stereotypes of the Middle East, and we're dismantling those through this class, and I find that so profound just because before this class, obviously we're fed these stereotypes by the media and by our ethnocentrism, and it's just really nice to get a different perspective. . . . It differs from country to country and village to village, but we're reading about wives, about certain women. And one of the books spent a lot of time talking about how the women in one specific village . . . [who] are not entirely unhappy with the harem life and the veil. They're not excited about it, but they don't hate it as much as we would assume. They understand the functional role that it plays in their society and how important it is, which I found interesting because I viewed polygamy and male oppression to be entirely bad, entirely. And I still do view it as being wrong. But knowing that the women are not as completely unhappy as I assumed before has helped me realize that there are benefits to polygamy, there are benefits to the veil, which I know sounds horrible, but after this class, it's helped me see that.

Close study of the readings offered new perspectives that conflicted with Susan's stereotypes, and the discussion invited her to take these new views into account in refining her beliefs. Susan felt that she had a more informed view as a result.

Similarly, the quantitative findings suggested that challenge and high expectations increase students' interest in reading and thinking in more complex ways, as well as their belief that diversity is essential to learning and self-understanding. Furthermore, findings indicated that challenge and high expectations influence the skills associated with socially responsible leadership, including consciousness of self, congruence, collaboration, common purpose, citizenship, and controversy with civility. Likewise, personal development such as psychological well-being (i.e., self-acceptance, sense of personal growth, environmental mastery, life purpose, and autonomy) appeared to increase when students experienced challenge and high expectations.

Challenge and high expectations in our quantitative analyses were measured through banks of questions representing three practices: in-class challenges and faculty expectations, exams and assignments that demand higher-order thinking, and opportunities to integrate knowledge from various sources and experiences. Given that the survey indicated these practices are associated with all of the learning outcomes in the prior paragraph, it is good news that these practices can be adapted to a variety of settings in order to foster learning.

#### **Diversity Experiences**

In qualitative interviews, students shared that they valued interactions with peers whose experiences differed from theirs. They reported that these interactions helped them to overcome negative biases they held about others, to learn about others' experiences, and to examine inequalities. Not surprisingly, students who experienced more diversity showed greater gains in intercultural development as well as increased interest in reading and thinking in more complex ways. They also were more likely to believe that diversity is essential to learning and self-understanding. The diversity experiences associated with these gains were taken from a range of questions about their experiences of meaningful conversations with those who are different than themselves as well as attending debates, lectures, or workshops about culture awareness and social/political issues.

A situation Devin shared as the coach of his rugby team captures the essence of these experiences:

Active learning, setting high expectations, and creating supportive, inclusive communities were among the suggested good practices in student affairs to foster student learning.

We were in practice last season and he [the only black player on the team] was worn out, so he was just kind of stretching off to the side and somebody made a comment like, "I know you're so lazy." He took it like all black people are lazy. So then we just talked about it. One of my biggest things is stereotypes. I did a study last year on stereotypes and he's [in] the biggest group that stereotyped in today's world . . . so of course blacks have different stereotypes than whites would. So we just sat there and talked about stereotypes after practice for a half hour, just kind of seeing what they thought, what he thought about things, and what I thought about things. It was one of those experiences where you learn how you're viewed sometimes, which you really don't think outside the box that way, so for me that was interesting.

Devin initiated this conversation among the players because he understood inequalities from his study of stereotypes. The conversation helped sort out biases about others and learn how players perceived each other. During interviews, students told us about meaningful diversity experiences that ranged from informal interactions with diverse others to highly structured class discussions or workshops.

## Good Teaching and High-Quality Interactions With Educators

Students appreciated interactions with caring faculty, staff, and peers who supported them in transitioning to college learning and the university community. The particular experiences students reported on the survey included having interactions with faculty outside of the classroom, having faculty members who were genuinely interested in student learning, receiving prompt feedback on academic work, and having well-organized faculty who could provide illustrative examples and clear explanations of the material being covered. Similarly, interview stories included faculty and staff respecting students as adults yet at the same time being willing to assist them through critical feedback, social contact, and personal support. Students also emphasized the importance of living learning communities for providing both academic and social support. These interactions on the whole deepened learning and provided exposure to difference. Justine told a story that demonstrated support from a faculty member:

My professor, she's very open-minded. I know she has her set of political, social, economic views that she holds personally, but she very much encourages discussion within the classroom and she acknowledges the fact that every single person is going to have a different view and is going to stick with that view and hold to that view in every paper that they write and every piece that they evaluate. But what I like is that she encourages us to develop our ideas based on our standards and our viewpoints in a very literate way and a very logical way to lend credibility to our work. So she challenges us. . . . I feel like a lot of people my age come to college with this set of viewpoints and it's not necessarily the viewpoints that they themselves own. They may ascribe to them, but it's not a viewpoint that they necessarily own, and to own a viewpoint, you must understand why and where it came from. And, not only that, but you need to be able to explain it courteously to somebody else and explain why you think this way and what it is exactly that you think. . . . It forces you to examine your standpoint around different issues. She's talked about everything from the war in Iraq to euthanasia to gay and lesbian marriages. And everybody has a different viewpoint, but to have to articulate that makes you think through, "Why do I think this?" . . . When you get conflicting research, you have to look at it with a fresh perspective and dig deeper. There can be research where both sides are valid and then you have to evaluate the points of that research, the thesis, and the argument behind each of those, researchers' evidence and decide which one you agree more with. . . . it gives you your own definition and your own point of view and I think that in and of itself is valuable.

Justine appreciated the respect she received from this professor to form her own views. The learning environment created by this respect for students' views and the challenge for them to articulate their views enabled students to exchange and evaluate multiple perspectives in a welcoming context.

The survey responses demonstrated that good teaching and high-quality interactions with educators

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are associated with a wide range of desirable learning outcomes. They also revealed that students made gains on four areas associated with socially responsible leadership: congruence between who they are and how they act, commitment to social and community causes, a sense of sharing a common purpose with peers, and the ability to handle controversial situations with civility. They also made greater gains on intercultural development and interest in reading. Finally, they experienced increases in personal well-being, including sense of life purpose, positive relations with others, self-acceptance, personal growth, and environmental mastery.

# PUTTING IT ALL TOGETHER: RECOMMENDATIONS FOR PRACTICE

THESE FINDINGS PROVIDE SOUND EVIDENCE concerning the types of practices that benefit learning on a broad array of liberal education outcomes associated with student learning. Both faculty and student affairs educators can adapt these practices to foster student development and learning.

# Academic Challenge and High Expectations

Academic experiences that challenged students to analyze ideas and explore their own thoughts pushed students to think critically and wrestle with difficult material, use multiple perspectives, and take the viewpoints of others into account in refining one's own interpretations. This evidence reinforces pedagogical approaches that actively engage students in constructing knowledge and collaborating with others in the learning process. Assignments and exams that demand higher-order thinking can complement classroom pedagogy and catalyze learning. Opportunities to integrate classroom learning with life experiences also challenge

students in ways that spur learning. These approaches can be extended beyond the formal classroom.

Service learning, often linked to academic coursework, is an excellent example of challenging learners to explore multiple perspectives and take others' viewpoints into account. Challenging students to think critically also occurs when residence coordinators approach a conversation about the defacing of residence-hall property by discussing with the violators how their actions may be viewed by their peers in the hall, the maintenance and custodial staff, and visitors. Similarly, leadership development staff might use this approach with student programmers in discussing the benefits and limitations of using general student fees to invite a controversial performer to campus. Wrestling through difficult issues such as the notion of "community," diversity of perspectives, and creating safe spaces for dialogue provides a rich opportunity to engage students in taking others' viewpoints into account and using multiple perspectives in their decision making and can be more effective in fostering student learning than simply providing and enforcing rules. Students encountering these challenges and high expectations in multiple aspects of their college experience have increased opportunities to develop more complex perspectives.

#### **Diversity Experiences**

The positive benefits of diversity experiences (overcoming negative biases, learning about others, and examining inequalities) are essential for students to be successful as global citizens after college. Educators can promote this good practice by crafting spaces and opportunities for meaningful conversations among diverse peers and teaching the necessary skills for civil dialogues about difference.

Student affairs educators have been at the forefront of creating opportunities for meaningful conversations

by initiating programs such as intergroup dialogues and supporting students to attend workshops like the Social Justice Training Institute (see http://www.sjti.org/home\_student.html for details). Faculty often introduce concepts of inequality and bias in the context of course content and provide space for meaningful exploration of these issues. Faculty and administrators can also collaborate to create campus lectures and workshops focused on cultural awareness and sociopolitical issues. In all of these contexts, creating safe spaces in which sufficient trust can be built to support these conversations is crucial, as is helping students acquire the skills and developmental capacities to participate in and benefit from these conversations.

These formal opportunities are important; equally important are informal opportunities that take place in sites such as a multipurpose space in the student union building or a residence hall lounge. Educators can use evidence about effective learning environments to encourage architects and designers to create comfortable spaces that invite informal conversation and support learning.

## Good Teaching and High-Quality Interactions With Educators

Students appreciated interactions with caring faculty, staff, and peers who supported them in transitioning to college learning and the university community. Students identified the following experiences as influential in helping them make the transition to college life:

- interactions with faculty outside of the classroom that demonstrated a genuine interest in student learning;
- well-organized faculty who provided illustrative examples, clear explanations of the material being covered, and prompt feedback on students' work;
- faculty and staff who respect students as adults yet are willing to assist them by providing critical feedback; and
- positive social contact and personal support.

These data suggest that both faculty and student affairs educators are integral to students' college transition. Living learning communities were identified as particularly helpful as they provided a multitude of supports, both academic and social. Students perceived good teaching as more than teaching material effectively; it also included caring about student learning and respecting students as adults. Student affairs educators, with whom students frequently interact, can apply these good teaching practices in their everyday work with students too. Whether it is providing critical feedback on a planned activity or problematic behavior, student affairs educators can convey their concern for student learning and respect for students as adults. Supporting students through making sense of critical feedback can help students refine their belief systems, clarify their identities, and learn to construct productive relations with diverse others. Challenging students to articulate their views and evaluate multiple perspectives while providing support for the process encourages deeper learning. These good practices can help students shift from depending on others to solve problems for them to learning to solve problems for themselves. The educator who aspires to work smarter views this opportunity as a way to foster students' selfagency and personal competence—important skills for life after college.

#### WORKING SMARTER

ALTHOUGH THE THREE GOOD PRACTICES (academic challenge, diversity experiences, and good teaching) are distinct, the common thread weaving them together is students' acceptance of the challenge coupled with educators providing the necessary support. Student affairs practitioners and faculty can learn more about the particular forms of challenge and support that foster student development by reviewing quantitative data about student experiences and listening to student voices concerning their experiences. The combination of findings from quantitative and qualitative data can provide powerful information to guide educators who may feel lost or overwhelmed in

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this era of increased workloads, financial constraints, and pressure for accountability.

Using evidence to guide practice is essential to enhance student learning. This article described the benefits of a mixed-methods approach: the limitations of one method were minimized by the strengths of the other, the two methods served to cross-validate the findings, and multiple lenses reveal the complexities of student learning. We recognize that each institution possesses a unique campus culture in which the good practices detailed here may take different forms. As educators endeavor to work smarter, we encourage examining data from one's own campus (many institutions have NSSE or CIRP data) and following up with focus groups to learn more about particular findings from the students' points of view. Reflective conversations such as those described by Marcia Baxter Magolda and Patricia King are another effective way to learn about students' experiences and perspectives. Assessment of one's campus context can highlight important nuances for each of the good practices described in this article.

Fostering student learning calls on faculty and student affairs educators to focus the design of courses, programs, and services in ways that maximize challenge and high expectations, diversity experiences, and good teaching/high-quality interactions with educators. Using both quantitative and qualitative data to understand students' college experiences can provide the information needed to design and implement practices that enhance learning.

### **AUTHORS' NOTE**

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