

EVERY STUDENT CAN LEARN—If...

*After forty-nine years of watching and working in higher education, Arthur Chickering has determined that three R's truly are fundamental to helping students learn. In stark contrast to the traditional set, **Chickering's three R's challenge educators to recognize, respect, and respond** to wide-ranging individual differences among diverse learners.*

BY ARTHUR W. CHICKERING

“**S**TUDENTS FLOURISH when their prior learning is valued and their preferred learning styles are recognized (p. 285).” This statement is among the “fresh ideas”—those that have received minimal attention in higher education—described in the book *Student Success in College*. In explaining the phrase, authors George Kuh, Jillian Kinzie, John Schuh, Elizabeth Whitt and their associates say, “Accommodating diverse learning styles has long been espoused as a principle of good practice in undergraduate education. . . . Many faculty and staff members at DEEP colleges [see sidebars] have taken this several steps further to systematically assess what students know and then design learning activities that build on their

knowledge and skills” (p. 285).

That assessing prior learning experiences in formal and informal settings, recognizing learning styles, and tailoring learning activities to individual students are “fresh ideas” is a commentary on the glacial pace of change in higher education. In the 1970s, prompted by growing numbers of returning adults and by the emergence of alternative institutions and programs designed to serve them, the Council for Adult and Experiential Learning (CAEL) (at that time it was called the Council for Assessing Experiential Learning) created the Principles for Good Practice in Assessing Experiential Learning. State-of-the-art surveys conducted by CAEL in the early 1980s revealed that some two thousand institutions were administering assessments of prior learning experiences.

David Kolb's experiential learning theory and his associated Learning Styles Inventory (LSI) hit the streets in the late 1970s. Many institutions created "new colleges," "university colleges," or alternative programs that incorporated the assessment of prior learning experiences and used Kolb's LSI to better understand individual students. Developing separate administrative homes for this work effectively sealed off the rest of the institution from adopting and adapting these practices. Twenty years later, the practices of recognizing prior learning experiences and developing learning opportunities that meet diverse student needs are seeping into the mainstream. This work has much to offer all students at all institutions.

The larger context is higher education's long-standing struggle with learner diversity. Fortunately, today's students find a wider range of content than in the past, not only within disciplines but through varied interdisciplinary alternatives. We have courses and programs anchored in gender, race, and ethnicity. We have area studies focused on different global regions. We have alternatives that combine and sometimes integrate content from the natural sciences, the arts and humanities, and the social sciences, usually team-taught.

During the last ten to fifteen years, we have also seen a sharp escalation in adaptations of varied pedagogical strategies. There are approaches to encourage more active learning such as collaborative and problem-

based learning. We help students create study groups and learning teams much more often than in the past. Multiple sources instead of single texts are much more common. We more intentionally work on verbal skills, employing writing-across-the-curriculum programs; discussions and debates; and oral and PowerPoint presentations. In varied academic programs, joint student-faculty research is becoming more common. Independent study and learning contracts are sometimes available. We no longer act like Procrustes, jamming content into the ubiquitous fifty-minute hour, just as the fabled host adjusted his guests to fit their bed. Now time blocks vary—from three hours, to all day, to week-ends, to six or eight weeks—to fit desired outcomes, content, and processes. Learning communities pursue complex themes for all or part of a semester or a year. Peer tutors help others and solidify their own learning in the process.

We have also begun to capitalize on increasingly sophisticated communication and information technologies to give students access to a wider range of print and visual resources and to an expanded range of human expertise. Chat rooms, Web logs, e-mail, and cell phones increase communication among students and between students and faculty members.

This expanded range of content, the greater variety of pedagogical strategies, and the exploitation of

The Documenting Effective Educational Practice (DEEP)

project is an in-depth study of successful educational practices at twenty different colleges and universities, all of which had higher-than-predicted student engagement scores, as measured by the National Survey of Student Engagement, and higher-than-predicted graduation rates. Findings from the project are reported in *Student Success in College: Creating Conditions That Matter*. DEEP was supported with generous grants from the Lumina Foundation for Education and the Center of Inquiry in the Liberal Arts at Wabash College. A companion volume, *Assessing Conditions to Enhance Educational Effectiveness: The Inventory for Student Engagement and Success* provides a template that institutions can use to identify areas of institutional functioning that can be improved in order to promote student success. More information about DEEP and a complete list of policy and practice briefs can be found at <http://education.indiana.edu/~nsse>.

Project DEEP Colleges and Universities

Alverno College (Wisconsin)
 California State University at Monterey Bay
 The Evergreen State College (Washington)
 Fayetteville State University (North Carolina)
 George Mason University (Virginia)
 Gonzaga University (Washington)
 Longwood University (Virginia)
 Macalester College (Minnesota)
 Miami University (Ohio)
 Sewanee: University of the South (Tennessee)
 Sweet Briar College (Virginia)
 University of Kansas
 University of Maine at Farmington
 University of Michigan
 University of Texas at El Paso
 Ursinus College (Pennsylvania)
 Wabash College (Indiana)
 Wheaton College (Massachusetts)
 Winston-Salem State University (North Carolina)
 Wofford College (South Carolina)

Ask students three questions: What do you want to learn? How do you learn best? What knowledge and competence do you already have that is pertinent to what you want to learn?

technological resources has been accompanied by greater understanding of and appreciation for the power of the kind of experiential learning that occurs prior to and during college. Service learning is recognized as the foremost example of this kind of learning, with its well-documented strengthening of course-related academic outcomes as well as its significant contributions to prosocial attitudes and behaviors. Learning that occurs through field studies is now more widely recognized and incorporated into college offerings. Internships accompany many professional preparation programs. Community-based student-faculty research projects, designed and carried out collaboratively with local agencies and organizations, generate benefits for both students and faculty members, as well as for the associated enterprises.

We are finding a wider range of products and performances useful for assessing learning, going beyond the simple use of paper-and-pencil midterm and final examinations. Journals and portfolios—electronic and otherwise—are becoming more common. And we are gradually learning to articulate publicly understandable criteria and providing examples of excellent, mediocre, and poor performance. Learner self-evaluations, peer evaluations, and reports from outside evaluators increasingly accompany our professorial judgments.

But as the *Student Success in College* authors note, we are still far from creating conditions in which all students learn. I maintain that to achieve the desired improvement, we need to learn how to act on three R's. We need to learn how to recognize, respect, and respond to the wide-ranging individual differences among our diverse learners. If we do this—and it is a big if—then many more of our students will achieve learning that lasts.

There is much more we can do to learn about and act on critical differences among our students (see sidebar). Think about it in three major areas: (1) what each student knows and can do, (2) what each wants to learn, and (3) how each learns best. And consider the three R's as students move into our institutions, as they make their

way through them, and as they move on. Following are some specific suggestions, with examples from DEEP institutions.

MOVING IN

MOVING INTO our institutions really begins with the recruitment, application, and admission processes. As part of their application, we can ask students three questions: What do you want to learn? How do you learn best? What knowledge and competence do you already have that is pertinent to what you want to learn? These questions can be pursued with individuals and with groups during campus visits. Many students will struggle a bit in trying to respond. Their initial answers may not be very sophisticated. But the important thing is to raise the questions, to start students thinking this way from the beginning. We did this with prospective Empire State College students back in the 1970s. When they came to our learning centers, the opening orientation sessions were rich with thoughtful reflections and good questions as each person considered the fit between his or her purposes and what the institution could offer.

Six Conditions at Strong-Performing Institutions

1. A “living” mission and a lived educational philosophy
2. An unshakable focus on student learning
3. Environments adapted for educational enrichment
4. Clearly marked pathways to student success
5. An improvement-oriented ethos
6. Shared responsibility for educational quality and student success

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As part of precollege or postenrollment orientation programs, students can be taught about various conceptual frameworks concerning individual differences in how we learn. Several useful perspectives, accompanied by self-diagnostic exercises or instruments, are available. Kolb's experiential learning theory, accompanied by his Learning Styles Inventory or Adaptive Styles Inventory, is perhaps most widely used. The Myers-Briggs Type Indicator (MBTI) is used in a variety of contexts. The literatures on neurolinguistic programming and on field dependence/field independence are also instructive and thought-provoking. The point of this is *not* to put individuals in boxes nor is it to assign labels. Each person is too complex for any categorization scheme. The critical point is to help students become more reflective and thoughtful about how they learn best and to give them some conceptual frameworks for that reflection.

After students have enrolled, prior learning can be assessed from work and life experiences as well as from formal and informal educational activities. Academic credit should be awarded when the result is college-level learning and when it is pertinent to what the student wants to learn and to institutional requirements. Though this type of prior learning assessment was initially designed for adults with substantial experiential learning, it is useful for traditional-age college students as well. Even students coming directly from high school will have had varied experiences that are not represented or captured on their transcripts. Few will have reflected on the knowledge and competence gained from those activities. This assessment is particularly important for first-generation college students and those less advantaged who have had to work. They will be helped to identify talents and "street smarts" they did

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We love feedback. Send letters to executive editor Marcia Baxter Magolda (aboutcampus@muohio.edu), and please copy her on notes to authors.

not know they had. They will begin by having their strengths recognized and documented instead of simply focusing on whatever academic limitations they may have. That focus on the positive boosts self-esteem and provides an encouraging perspective that helps balance whatever special help they may need.

Faculty members who teach first-year courses, particularly large-enrollment general education courses, should be helped to use one or more of these conceptual frameworks and diagnostic exercises or inventories during their first or second class meetings. They should be helped to learn to discuss the results with their students and to consider the implications for how they and their diverse students can work together productively.

Several DEEP institutions work hard to recognize, respect, and respond to each individual student. California State University at Monterey Bay (CSUMB) is anchored in an "assets" philosophy. Consistent with that cornerstone, it recognizes that students' prior knowledge and experience should be used to foster learning. This intervention, coupled with an interdisciplinary, problem-based curriculum, helps create a sense of relevance and urgency about learning. Starting with what students know and can do reinforces the expectation that students are preparing to make a difference in the world and are empowered to effect change.

Fayetteville State University has well-prepared students, but more than 40 percent get low scores on math and reading exams and need to improve communication skills. Many are first-generation college students coming from small towns and rural areas, with family incomes of less than \$20,000 a year. The institution does not apologize for these students and recognizes that you have to reach them to teach them. One faculty member said, "You must teach the students you have, not the ones you wish you had." The bedrock philosophy visitors to the campus heard, "We will meet you where you are, but we will tell you where we want you to go." The educators at Fayetteville State believe that "If we are committed to helping our students achieve academic success, we must be concerned about their total personal development—academic and personal, intellectual and social." A center for teaching and learning conducts

workshops to help faculty members learn to assess the abilities of individual students and provides information about students' diverse learning needs. In their courses, instructors provide alternate assignments—for example, students can replace an exam with a paper.

The University of Texas at El Paso created a university college to help students make the transition. Described by faculty members and administrators as a “hybrid of student and academic affairs,” it coordinates admissions, financial aid, orientation, registrar functions, and academic advising. It also coordinates learning communities that link two or three courses for the same student cohorts. It operates University 1301: Seminar in Critical Inquiry, a three-credit requirement for all first-year students. This course emphasizes collaboration, teamwork, and active learning. Students are explicitly taught how to learn well: As one faculty member said to students, “I want you to learn to be interdependent.” “You have to find out about each other’s schedules and meet outside of class.” The course emphasizes preparation and practice and requires group presentations. Students are provided with criteria for peer evaluation, and all group members receive the same grade. Professional development sessions introduce teachers to Kolb’s experiential learning theory and learning style differences. Instructors gather periodically to share and learn from one another’s experiences.

There are, then, a variety of strategies for using the three R’s to help students move into our institutions and get started, to help them be ready to invest the time, energy, and emotion required for a successful transition. Those strategies lay a foundation for helping students move through in ways that foster learning that lasts.

MOVING THROUGH

MOTIVATION IS THE KEY to persistence, to moving through successfully, and to learning that lasts. The challenge is to help each person clarify his or her important purposes and then to find or create the combination of studies that is pertinent to those desired outcomes. Many institutions have opportunities for students to create individualized

majors buried deep in their catalogues, but at most institutions, few students pursue such opportunities.

During their first two years, prior to choosing or designing a major, students can use independent study or learning contracts to explore the areas of knowledge and competence that are pertinent to particular purposes, be they occupational aspirations, intellectual interests, or social concerns. Those studies can lay the foundation for majors that build on important motives. When those motives drive student learning, increased persistence and solid achievement result.

The other critical ingredient for sustained energy and solid learning is prompt, detailed, and personalized feedback on the strengths and weaknesses of varied products and performances, accompanied by specific suggestions for improvement or next steps. California State University at Monterey Bay does this by requiring each student to design an individualized learning plan, which is updated and revised based on feedback at several points during college. At Alverno College, students play an active role in assessing their competence and that of their peers in the six areas the college has deemed educationally essential. Narrative evaluations of students’ work in each course are a much more effective way to assess and provide the feedback necessary for high levels of learning and personal development than a symbolic letter or number grade. One powerful approach is to ask for one or more drafts that can be critiqued and returned prior to the student’s submission of a final product. Another powerful approach is to spell out performance criteria and to have learning teams critique each other’s work before it is submitted. Peer tutors, with coaching from the teacher, can also help students with preliminary drafts. Detailed attention to and respect for each person’s work helps sustain motivation and validates the increasing knowledge and competence resulting from serious student engagement.

Faculty members at Sewanee: University of the South emphasize the importance of working with individual students. Across all disciplines, they spend a great deal of time on evaluating student work and meeting with students individually to discuss their assessments. A group of students reported that faculty members

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value the effort they invest in academic work and encourage improvement in one-on-one conferences. One junior said, “I wrote a paper my first year, and the grade was really bad. I just could not understand what I did wrong. . . . My teacher sat down with me and helped me revise it. Three meetings later, I had a great paper. He did not just tell me what to do and how to correct my paper. He invested in me and my work.”

Giving prompt, detailed feedback is a central activity at The Evergreen State College (TESC). There are no letter grades. Faculty members invest substantial time in narrative evaluations of student products and performances. At the end of each class or program, students submit written reflections on their work and describe significant learning experiences. Students and faculty members discuss both the faculty evaluation and the student’s self-evaluation, after which the faculty evaluation goes to the dean. Students also provide written feedback to faculty members on their teaching and the strengths and weaknesses of a course or program.

In contrast to Sewanee and TESC, about two-thirds of CSU-Monterey Bay’s students live off campus, so it is difficult to schedule face-to-face meetings in order for students to receive feedback on assignments. In lieu of these meetings, faculty members in English and history frequently require students to upload rough drafts—sometimes, multiple drafts—onto the online course management system Blackboard prior to submitting the final paper. The extensive feedback helps students produce higher-quality work. One sophomore said, “She was so challenging. . . . She would proof my papers and give me lots of feedback, and then I had to go back and make a lot of changes.” In addition, this teacher displayed and mentioned good work done by students as models for others to emulate. One CSUMB alumna said, “This place understands that most learning is between students. . . . Not everyone can learn from lectures. I learned the most when I had to work on group projects outside of class.”

The three R’s are critical ingredients for helping students move through successfully and achieve learning that lasts. First, we need to recognize the diverse individual motives that can drive the time, energy, and

emotion required. Second, we need to recognize that all students do not learn most effectively in the same way. Third, and most important, we need to respond with the prompt and continual feedback and support that nourishes that initial motivation, that respects each person’s ways of knowing and learning, and that provides concrete suggestions for improvement. If we do that, we will be effective in helping our students move on to the postcollege challenges they will encounter.

MOVING ON

ONE KEY to helping students complete college with a bang, not a whimper, is to help each person frame his or her final year or final semester in the context of future plans and aspirations. If students’ experiences in moving through our institutions have had any significant impact, their thoughts about themselves and their future will have changed substantially from when they entered. Many students will have changed their initial intended major. Others will still be pointed in the same direction, but their understanding of what their professional aspirations or societal concerns really involve will have become much more complex. Evergreen State, George Mason University, University of Maine at Farmington (UMF), Ursinus College, and Wofford College require experiential learning in the form of internships, field studies, and service learning, all of which enrich students’ sense of the gritty details of particular kinds of work or social contributions. Some programs at UMF place students in practicum settings early in their studies in order to help them identify career interests. Wheaton College’s Filene Center for Work and Learning builds a reflective component into its programs so that students can more concretely connect their experiences to coursework. The more we can help each person clarify his or her thinking about next steps after college, the more time, energy, and emotion each will invest in his or her final studies.

Capstone courses, used by a number of DEEP institutions, are one strong way to provide rich culminating experiences. Often, these courses are broad-based

and thematic. Students at Wabash College and Sewanee write comprehensive exams in order to organize and synthesize information and demonstrate competence in their major. These rigorous exams are as much a source of motivation to persist and graduate as they are a powerful rite of passage. At Longwood University, students must complete major papers or portfolios that document their learning; these are often used in applications for graduate school or employment. Discovering ways to help each person connect their work to future plans and aspirations can help make studies forward-looking and suggest areas for future formal or informal post-graduate learning.

Self-designed independent studies or learning contracts are especially useful for students who wish to demonstrate proficiency in reading, writing, numeracy, and research skills. George Mason offers an event called Innovations, in which students and faculty showcase initiatives that reflect creative learning experiences using technology. Each person has the ability to articulate the desired learning outcomes; the mix of learning activities that work best; the range of print, visual, experiential, and human resources that would be useful; and the products or performances that can demonstrate how well the desired outcomes have been achieved. Ursinus College requires all students to complete an independent learning experience before they graduate; it often takes the form of a research project in the major. Such studies can be based on library research, laboratory experiments, or field studies. By linking occupational interests, relevant socioeconomic and value issues, and lifestyle implications, these integrating, culminating experiences help position each person well for his or her life after college.

The critical point is that we need to be serious about helping our students move on to satisfying and productive lives as partners, parents, citizens, and workers. To do so, I believe we need to commit to the three R's. We need to recognize, respect, and respond to each person's emerging future plans and aspirations in the most helpful ways we can. By doing so, we will help them toward a successful transition out of college. We will also strengthen their identification with our institution, so that they become loyal and supportive graduates.

SOME QUESTIONS TO CONSIDER

THE SUGGESTIONS in this article for recognizing, respecting, and responding to individual differences among our students are highly synergistic. When each initiative is seen as part of a larger strategy, the cohesion and integration that results

sharply increases the likelihood that all students will learn. Most important, the institutional culture will be characterized by the three R's.

Following are some questions to help institutions move toward that culture:

- What current policies, programs, and activities as students move in, move through, and move on are consistent with the three R's?
- What additional policies and practices would be helpful as part of recruitment, admissions, orientation, and first-year experiences?
- What changes are implied for how general education courses are taught, in terms of both content and processes?
- What changes would be helpful as students contemplate and choose their majors and move through them?
- What changes would be helpful in the ways products and performances are evaluated within courses or other learning activities and in final course evaluations?
- What culminating experiences would help each person have an educationally powerful final year and leave well positioned for her or his next steps?

As the examples offered in this article suggest, many powerful practices are under way at DEEP institutions; these practices are elaborated in *Student Success in College: Creating Conditions That Matter*. To learn more, contact individuals at those institutions, ask for their literature, and visit their campuses. By doing so, you can move steadily toward helping every student learn.

NOTES

Kuh, G. D., Kinzie, J., Schuh, J. H., and Whitt, E. J. *Assessing Conditions to Enhance Educational Effectiveness: The Inventory for Student Engagement and Success*. San Francisco: Jossey-Bass, 2005.

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