

Identifying and Responding to Online Learners' Differences

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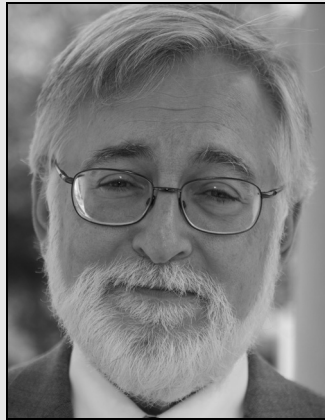
INTRODUCTION

Online students in the same course usually differ from one another in instructionally important ways (e.g., in their motivation, preparation, cultural context). Using technology, instructors can discover those differences, and

then respond in ways that gives each type of student a good chance to excel.

IDENTIFYING MEANINGFUL DIFFERENCES AMONG STUDENTS

The list of potentially meaningful differences among learners is long and can



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include, for example: age, content mastery, disabilities, gender identity, major, motivations for taking the course or workshop, native language, preconceptions about course content, race/ethnicity, religion, socioeconomic status, and technology literacy.

In any particular course, an instructor can only respond to a few such differences through modifications of course design or teaching techniques. So the first step for instructors and course designers is to consider in advance what the most important differences for learning might be.

Once a few such differences are identified, the next step is to discover whether incoming students do indeed differ in those ways. Two common technology-enabled techniques for assessing differences among online learners are: (a) online surveys, and (b) testing their abilities (e.g., online project; online quiz; video recording of a performance). For instance,

Example of a survey: In a course on educational uses of technology in school, are any of the incoming students already experienced teachers? (If half the students have such experience and the other half are novices, the assignments could be adjusted to use small groups in which the experienced students can help the novices.)

Example of a test: In a course in physics, what abilities and misconceptions do entering students have? The instructor might use the Force Concept Inventory (Halloun & Hestenes, 1985a, 1985b) to identify misconceptions. (Findings could then help the instructor prepare appropriate assignments to test student beliefs against experimental results.) Once the course is underway, other differences among students may need to be uncovered.

Example of a mid-course survey: Suppose that participation in online discussion or teamwork is poor. There are dozens of reasons why any given student might not be participating much (or at all). An item bank such as this one <<http://bit.ly/barriers>

online-discussion> developed by Ehrmann, can be used to ask each student what has been holding him or her back; fortunately most such barriers can be lowered if (but only if) the instructor knows the problem exists.

RESPONDING TO STUDENT DIFFERENCES TO HELP EACH STUDENT SUCCEED

Once an instructor has discovered educationally important differences among students, the next task is to respond in a way that gives both (or all) types of students a chance to become engaged and to excel.

One size fits all: If traditional approaches favor one type of student over another, one response is to devise a new approach that is equally accessible to both types of student. For example, assume that the instructor has found that some students have English as a native language while others do not. One way to conduct discussions that provides a level playing ground for both groups is through asynchronous discussion. (In contrast, a real-time online discussion might make things comparatively difficult for non-native speakers because they cannot react as quickly to what they read or hear in real time.)

Different strokes: A second way to help different groups of students learn is by offering options, each designed to engage and support a different type of learner. This strategy is sometimes called *differentiated instruction* (Milman, 2009; Tomlinson, 2003) For example, suppose half the students in a large class are premedical students while the other half are biology majors. Some homework assignments might include one version designed to motivate the premed students, another version more likely to appeal to biology majors. The underlying goal: to energize both groups of students to work hard because they see the value of the homework. A survey such as this one can help

an instructor discover such differences: <http://bit.ly/engage-sce>.

Student differences can even be turned into an asset for instruction. Leslie Harris (1996) created a real-time online discussion (using what today would be called a chat room) for students studying persuasive writing at three dissimilar institutions: two small rural institutions and one large urban university. At each college, most people held similar positions on national issues so that it was hard for students to imagine having to make and defend a real argument. But across institutions, the gulf among student beliefs was wide. Online debates in real time laid a foundation for writing persuasive essays.

CLOSING THOUGHTS

A classic study (Schneider, Klemp, & Kastendiek, 1981) compared the assumptions of faculty widely seen as excellent teachers with colleagues who were seen by their peers as average. The “normal instructors” saw their responsibility as explaining and testing; it was the students’ responsibility to learn, and, because not all students were prepared, poor performance was to be expected. Though they knew students were different, the normal instructors taught all students alike. In contrast, the exemplary instructors believed that, though students differed, they all had the ability to excel, if each were properly

taught. Therefore each semester the instructor invested attention in each student, experimenting with ways to engage that student or that subset of students. Today’s online courses offer exciting possibilities for discovering and responding to student differences, so that all students (and instructors) can excel.

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TODAY’S ONLINE COURSES OFFER EXCITING OPTIONS FOR DISCOVERING AND RESPONDING TO STUDENT DIFFERENCES, SO THAT ALL STUDENTS (AND INSTRUCTORS) CAN EXCEL.



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