Best online instruction practices: Report of Phase 1 of ongoing study

This study examines how best practices in online instruction are the same as, or different from, best practices in face-to-face (F2F) instruction. The book *Effectiveness and Efficiency in Higher Education for Adults* [1] summarizes some 20 years of research on best practices in F2F instruction. The bases of comparison are principles from the KS&G material and from Chickering and Gamson's "seven principles for good practice in undergraduate education" [2]. A reason for making these comparisons is that the rapid growth of online instruction promises that online instruction may become the largest source of ongoing higher education. Not surprisingly, interest in assessing the quality of online offerings has also grown [3, 4, 5, 6]. The question is increasingly raised: Are postsecondary institutions effectively "doing their old job in a new way?" [7]. One way to answer that question is to analyze the online instructional practices of faculty with the aid of research on patterns of instruction, face-to-face and online.

I. PRINCIPLES OF BEST PRACTICE

The book *Effectiveness and Efficiency in Higher Education for Adults* [1] (herein referred to as KS&G) undertakes just such an analysis. The book surveys research of the last 20 years, including meta-analyses of studies on different principles of instruction, in search of principles and practices with largest effect sizes in explaining learning gains. Eight principles emerge as a manageable set of principles meeting this criterion. For each of the principles, case studies are cited that apply each principle as effective practices or strategies.

These eight principles, though worded differently, partially overlap and supplement the "seven principles for good practice in undergraduate education" [2] (herein "C&G").

Table 1. Principles from C&G and from KS&G

Chickering and Gamson (C&G)	Keeton, Sheckley, & Krejci-Griggs (KS&G)
 Good practice encourages student-faculty contact. 	Make learning goals and one or more paths to them clear.
Good practice encourages cooperation among students.	Use extensive and deliberate practice.
3. Good practice encourages active learning.	Provide prompt and constructive feedback.
4. Good practice gives prompt feedback.	Provide an optimal balance of challenge and support that is tailored to the individual student's readiness and potential.
5. Good practice emphasizes time on task.	Elicit active and critical reflection by learners on their growing experience base.
Good practice communicates high expectations.	Link inquiries to genuine problems or issues of high interest to the learners (thus enhancing motivation and accelerating their learning).
7. Good practice respects diverse talents and ways of learning.	Develop learners' effectiveness as learners early in their education.
	Create an institutional environment that supports and encourages inquiry.

In terms of feedback, the KS&G principles add that the feedback needs to be constructive. The KS&G principle on balancing challenge and support combines the C&G principles 6 and 7, encouraging individualization of learning arrangements. A focus on active learning is shared by the two analyses, with KS&G making explicit the need for critical thinking and including cooperation among students and interaction between teacher and students as ways to foster the active, critical reflection. Finally, KS&G adds a focus on the institutional climate or environmental press for inquiry as a key to best practice.

II. KEY FINDINGS

Key findings of the study to date include the following:

- The individual instructor's effectiveness in applying the eight principles of KS&G is a major factor in adult students' learning and persistence.
- Students need support additional to that of the syllabus in understanding and pursuing the learning objectives of a course or other educational effort.
- Students in online courses expect faculty to be more readily and promptly available at non-class times than F2F students expect of faculty in responding to the students' communications.
- The most effective faculty actively use five or more of the full array of instructional principles so can they elicit the largest learning effects.

• Faculty agreed that teaching well online is more time-consuming than teaching F2F.

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This paper is abbreviated from a February 14, 2002 report by Marisa Collett, Morris Keeton and Vivian Shayne of the Institute for Research and Assessment in Higher Education for the Office of Distance Education and Lifelong Learning at the University of Maryland University College. For more information the actual article is located at:

http://www.sloan-c.org/publications/jaln/v8n2/v8n2_keeton.asp

Overview: Why Encourage Student Interaction and Collaboration?

Online course communication tools enable students to interact with course content, the instructor, and their peers outside of the classroom. Students are given the opportunity to negotiate the meaning of course content through these interactions - creating the potential for a deeper and longer lasting learning.

A virtual learning community that provides support and sharing among its members can be built through the integration of online communication tools and course activities and sustained through effective facilitation by the instructor.

http://www.cmu.edu/teaching/technology/bestpractices.html