Assessing Faculty Development and Use of Online Course Authoring Tools with the Stages of Concern Questionnaire

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Abstract

To respond to the demand for increasing the numbers of certified special educators in Arizona[1], the College of Education at Arizona State University West launched a faculty development program with the help of funding from the ASU College of Extended Education. The goal was to prepare or redesign courses for web-based delivery of courses combined with select face-to-face campus-based components leading to a Master of Education in Special Education degree with Cross Categorical Certification. Although the faculty of the Department of Special Education in the College of Education were committed to having an online presence, the majority of the faculty expressed a need for further training in online instruction and course authoring tools. For example, only two of the special education faculty maintained a web page and one had participated in the development of the first virtual university classes in 1997.[2] A total[3] of 22 faculty and faculty associates participated in Spring 2002 activities: six COE faculty; and seven faculty associates. In addition, six people from the originally convened group (February 4) withdrew either due to illness or too full an academic schedule. Three academic advisors completed the online workshop and created modules for advising prospective candidates for the program or prospective student teachers.

The Concerns-Based Adoption Model (CBAM) may be a useful model for understanding developmental changes of people who adopt innovations (Hall & Hord, 2001). It offers an approach to the study of change by focusing on the needs of individuals and describing their growth over time as they learn to use an innovation[4].

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[1] Arizona's special education directors must recruit approximately 80% of their special education personnel from out-of-state sources due to the limited numbers of special education graduates from Arizona's institutions of higher education (Arizona Council for Administrators of Special Education Annual Conference, Phoenix, AZ, November 9, 2001).

[2] Professor Ann Nevin developed and offered SPE 598 Applying Best Special Education practices since 1997 and coached the current faculty associate, Dr. Susan Stutler, a teacher in the Gifted and Talented Education program for Deer Valley. Dr. Nevin also developed and offered SPE 311 Orientation to the Education of Exceptional Children in 1998; subsequently taught by Dr. Kathleen Harris. Currently several faculty associates are interested in learning how to teach this class online.

[3] All participants signed agreements to participate in the assessment process following the guidelines of the ASU Human Subjects Review Board agreements To maintain confidentiality, initials were used as placeholders for names protects anonymity of participants.

[4] Applications of CBAM using the Stages of Concern Questionnaire to study special education issues have appeared in the literature. Rainforth (2000) used CBAM to evaluate the impact of inclusive education as the innovation for a graduate course to prepare teachers of students with multiple disabilities. Pedron and Evans (1990) used the SoCQ to trace classroom teachers' acceptance of a consulting teacher module. Participants were provided self-instructional modules related consulting teacher models: information (Stage 1), management (Stage 3), and consequences (Stage 4). Significant reduction of concern was obtained upon implementation of all 3 modules, with the greatest reduction shown for the management module. These results suggest that teachers in the early stages of implementing a consulting

Seven Stages of Concern (SoC) have been identified. The stages that a person experiences when adopting an innovation include: (1) little concern about or involvement with the innovation; (2) interest in learning more about the innovation, with little personal concern; (3) personal uncertainty about the innovation's demands, concern about adequacy to meet demands, and considerations of potential conflicts with existing structures or commitments; (4) concerns related to processes and tasks of using the innovation and the best use of information and resources; (5) attention focused on impact of innovation on students and changes needed to improve student outcomes; (6) concern focused upon coordination and cooperation with others regarding use of the innovation; and (7) exploration of more universal benefits of the innovation and development of possible alternatives. The SoC Questionnaire was administered prior to the faculty enrolling in the Online Teaching and Learning Workshop to introduce faculty to pedagogical issues related to online instruction. Upon completion of the workshop and completion of the structuring of at least one online class syllabus and/or module, the Soc Questionnaire was again administered on May 9 or May 13 (depending on which debriefing session the participant attended). Pre/post changes in stages of concern as reported by 21 participants (six who withdrew, nine who completed the online workshop, and six who were in progress) were analyzed. Pretest comparisons of participants in all three categories (withdrawers, completers, and in progress) show relatively similar patterns, thus indicating that there is no apparent difference between those who completed or continued compared to those who withdrew. In fact, there were two participants in each of the Withdrawers and Completers Groups who had prior experiences in using web-supported software.

Table 1: T-test Analysis on Raw Scores for each of 7 Stages of Concern

	Aware-ness Stage	Inform-ation Stage	Personal Stage	Manage-ment Stage	Conse-quence Stage	Collabora-tion Stage	Refocus-ing Stage
Pretest	10.0	20.6	19.6	18.6	22.2	19.3	14.3
Posttest	13.2	24.3	18.4	17.3	25.7	24.2	21.8
T-test	.1240	.1533	.3490	.3465	.1733	**.0584**	**.0055**

As shown in Table 1, the pre-post changes in each of the seven Stages of Concern for all those who had completed or nearly completed the online workshop were analyzed using the Student's T-Test for small n's. The T test for paired data yielded a significant difference (T test $\leq$ .05) between pre and post overall stages of concern for the Refocusing Stage. The pretest relative frequency of 38% was significantly higher than the posttest relative frequency of 73%. This pre-post decrease in relative concerns indicates that participation in the online workshop ameliorated the participants' concerns, as expected. It appears that participating in an online workshop helped participants gain knowledge regarding their personal concerns such as learning how instruction might be changed as a result of the internet as an instructional delivery system (Questionnaire item 17), getting more information (Questionnaire item 28), and learning how their roles might change (Questionnaire item 33). An almost significant difference (T test = 0584) was

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teacher approach may "profit more from practical 'how-to' details than general theory and broad conceptual information" (p. 196).

obtained for the Collaboration Stage of Concern. This indicated that participants' concerns changed from relatively less intensity to a higher intensity as a result of learning about the internet as an instructional delivery model. This increased concern for collaboration with others (e.g., Questionnaire Items 10 and 27) may be a direct result of learning about the need to coordinate with library professionals to make readings accessible online and instructional designers or technical support analysts.

The shift in concerns can also be heard in the comments made by participants during focus group interviews in May. Participants shared many anecdotes and concerns that matched the relative changes in the quantitative data when compared to their initial conversations at the February meeting. In February, a total of 17 comments reflecting anticipations or anxieties were discussed (scribed by the author during introductions of 23/25 of the participants). *Two themes emerged: a theme related to concerns regarding Personal Competence, and a theme related to Concern for Impact on the Learner*. These themes are similar to the Personal and Consequences stages of concern, which showed pre-post changes in the direction of reduced intensity of concerns. As shown in Table 2, comparatively different themes emerged in May, when a total of 17 *different* concerns were discussed. Four themes were identified: *Managing the online environment as a learner as well as a professor, Impact on the learners, Personal competence, and Redesigning*. These themes corroborate the pre-post shifts in concern on the questionnaire related to Management, Consequences, and Refocusing Stages of Concern. The post-workshop introduction of comments related to *redesign concerns* is also reflected in the pre-post comparative increase in relative intensity for the Refocusing Stage of Concern, the only stage for which a statistically significant change occurred.

Table 2: Theme Analysis* of Pre and Post Workshop Comments

Pre Workshop Themes (N=17 Comments)	Post Workshop Themes (N=17 Comments)
Personal: 11/17 *Will I like teaching online? (I love face-to-face.)* *How much time is involved in doing this type teaching?* *I'm a technophobe…techno-peasant…techno …techno-neophyte….* *Can we break the Internet?*	**Personal**: 3/17 *At first I thought that I couldn't imagine myself as an online instructor; now I am thinking more about the possibilities of how to be an online instructor.* *The workshop opened up a whole new understanding of the pedagogy of online instruction.*
Consequences: 5/17 *Can we meet graduate students' needs?* *Can advisors/advising happen online? How?* *I see lots of possibilities; I'd like to see some that is valuable, that helps students become teachers.*	**Consequences**: 6/17 *Perhaps what we have here is a new awareness of a pedagogy for computer teaching?* *I can 'see' that individual personalities do come through in the written dialogues!* *I'm excited about finding out if participants can be metacognitive about the pedagogy we are using in onli and perhaps even think of their role as a possible 'internet instructor' for children with disabilities.*
	Management: 6/17 *[I need to] remember to include a connection to the Fletcher Library so that course participants will access course-related readings online; this involves*

	working n advance to ensure that the readings are reserved. *How can I bridge the missing prosodic language cues that I miss so much in online interactions (tone, body language, gestures, facial expressions)?* *What is our role as the instructor for an online class re teaching the student how to use the tool itself?*
	Redesign: 2/17 *Even though I had come into this experience with some prior knowledge of online instruction, the workshop gave me a framework to shape my own instr the internet.* *Can participants self-evaluate their own participation in the online venue with respect to the consultation framework they are studying? Is there any evidence, in online chat interactions, that the consultation process is being used?*

[*Note: random listing of their verbatim comments protects participants' anonymity.]

Because one limitation of this study is the small number of participants at only one university, replications by other university faculty may show that concerns change as a result of implementing the courses they've developed. Longitudinal studies may show that gaining direct experience with online teaching can lead to decisions to fine tune and redesign classes. . It seems that the Stages of Concern instrument itself seems to be sensitive to changes in concerns that are consistent with developmental stages associated with others who have adopted innovations. Participating in an online workshop allowed the faculty involved in this study to acquire basic information about online pedagogy as well as to directly experience effective teaching processes involved in online instruction. Their concerns for the internet as an instructional delivery model shifted in the direction reported by others who have assessed the impact of educational innovations using the C-BAM. That is, as participants became familiar with the innovation, their personal concerns were alleviated while management, consequences, and redesign issues took on a higher relative intensity. Not only were these changes found in the quantitative pre-post workshop analysis of the Stages of Concern questionnaire to be statistically significant ($p \leq .05$), but they surfaced in a theme analysis of comments made by participants during pre and post workshop debriefings. However, perhaps the most important outcomes are that the faculty decided to offer at least one online course and web-enhanced classes for Spring 2003 special education majors (Special Education Faculty, personal communication, November, 2002).

References

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