A replication study of the attitudes of selected academics and decision-makers towards adult students.

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Abstract: The investigation examined the attitudes of selected academics and decision-makers towards adult students 15 years after the original study was conducted, in another rural state, and in another region of the United States. While the primary purpose was to replicate the original study, a secondary purpose was to compare and identify changes in attitudes.

Problem Statement

Higher education in the United States clearly supports a culture that facilitates a successful learning environment for traditional students. In contrast, higher education has experienced difficulty in meeting the demands of adult non-traditional students (25 years or older). While the concept of lifelong learning has been integrated into mainstream society with remarkable success, and institutions of higher education have been asked to become more responsive to adult student demands, some institutions have made significant strides while others have been reluctant to adapt (Dillman, Christenson, Salant, & Warner, 1995). Concerns of reduced funding, increasing technological demands, and declining enrollments of traditional college students are raising questions about dated policies and practices that do not adequately meet the demands of the "new majority" of adult students.

The Education Resources Institute in a 1996 publication *Life After Forty: A New Portrait of Today's-and Tomorrow's-Postsecondary Students,* outlines that students over 40 are the fastest growing age cohort in postsecondary education, and represent a new set of opportunities for the nation's higher education system. According to the report, understanding where these students are being trained, and how their life circumstances affect their educational experience, permits administrators to adapt programs to over forty students' educational demands.

Numerous authors (Gross, 1995; Mehlinger, 1996; Van Horn, 1996) have outlined the current changes in society that directly affect higher education and the demands of lifelong learning. Sisco's (1981) three sociological developments (technological change, lifelong learning, demographic change) have remained major influences driving change in American society today.

Learning technologies (CD ROM, interactive video, Internet courses, etc.) are providing higher education with opportunities to meet demands which would have been impossible a few short years ago (Gilbert, 1995; Gross, 1995; Mehlinger, 1996). According to Dillman and associates (1995) institutions of higher education that are prepared for the future will ensure (1) that technology is available, (2) that support services are in place, (3) that instructional strategies are improving, and (4) support for those who are making the leap from face-to-face interaction to learning across space and time. In addition, institutions that have traditionally defined infrastructures in terms of buildings and structural foundations will find it difficult to compete with institutions that have become almost "inflatable" in nature. Flexibility in design and capacity will facilitate meeting the demands of adult clients.

Today, lifelong learning terminology has become common from kindergarten through graduate education. Continuing professional education and workforce training and development are examples, and play a critical role in American society. In addition, lifelong learning is most often triggered by an event (loss of employment, divorce, children leaving home, illness, etc.) The only constant among adults and their personalized description of the event, is the event itself. Furthermore, labor market analysis estimates according to Charland (1993) indicates that one-third of the jobs in America are in transition, that one-third of technical jobs are becoming obsolete, and that one-third of our workers are leaving their jobs. To adapt to the changing demands in the workplace, lifelong learning can assist adults in transition as they prepare for the new realities of American society.

Demographic changes in American society, including an ever increasing aging population, and realignment of immigration policy will continue to influence demands for higher education. According to Gross (1995) baby-boomers are poised to become the largest group of potential customers for higher education by offering a flexible, broad-based adult student learning environment. In fact, enrollments for institutions of higher education are projected to increase only 4% for students under 25 years, but 16% for students over 25 years (National Center for Education Statistics, 1995).

Important stakeholders' (academics and decision-makers) hold attitudes and display actions which influence policy and programs and effect adult students. Understanding these attitudes can increase awareness and provide an increased sensitivity to adult students. This research builds upon replication, attitude, and adult learning theory and attempts to compare and understand the attitudes of academics and decision-makers toward adult students since 1981, when the original study was conducted.

Theoretical Framework

According to Gall, Borg, and Gall (1996), researchers should repeat studies to test validity and reliability of their findings. Replication studies enhance the generalizability of previous findings and provide confirmatory data concerning the behaviors, subjects, and setting, to which the results are applicable. Furthermore, understanding attitude theory and its develop from a knowledge perspective (as it translates to potential behaviors) is important since according to Craig and Norris (1991) behaviors are influenced by attitudes. Experiences that academics and decision-makers have with adult students influence their development and decision-making

processes. Contacts with adult students effect attitudes toward adult students. In addition, it influences adult student programming initiatives. Identifying these significant demographic variables (e.g., experiences with adult students) can assist in developing appropriate professional development initiatives.

Research Methods

Gay (1987) proposed that repeating a study with different subjects in the same or different settings increased the generalizability of findings. Unfortunately, Borg and Gall (1989) observed that replication studies are seldom done by educational researchers even though they are an important strategy for determining the significance of results obtained in a particular study. Additionally, replication studies need not literally repeat the exact design of the original study. The 1995 study replicated critical elements of the 1981 study and extended the inquiry into new areas of interest (Borg & Gall, 1989). Conducting the 1995 study in a different region of the country contributes to the generalizability of previous research findings.

Modifications were made to the 1981 study to facilitate conducting the 1995 study. Sisco's (1981) design incorporated personal face-to-face contact with the subjects for data collection. Interviews and attitude questionnaires were conducted with 130 subjects in the original study. The 1995 study utilized mail survey and follow-up telephone interviews. Both studies utilized an attitude questionnaire and interview schedule. The attitude questionnaire consisted of 30 statements related to adult learners that emerged from a literature review and clustered around the following categories: (1) learning ability, (2) achievement and performance, (3) motivation, (4) experience, (5) learning style and orientation. In addition, the term "adult student" replaced "adult learner" in the attitude questionnaire to reflect current literature describing students over the age of 25 attending institutions of higher education.

The replication study utilized survey research following Dillman's (1978) "Total Design Method" (TDM). The study included the entire population of academics (University of Wyoming) and decision-makers (1995 Wyoming Official Directory). The attitude questionnaire was mailed to the population of academics (661) and decision-makers (214) generating a total response rate of 530 or 60.57%. The response rate of academics was 389, or 58.85%. The response rate of the decision-makers was 141, or 65.88%. Twenty percent of the returned attitude questionnaires of academics (n=78) and decision-makers (n=28) were randomly selected with replacement for the telephone interview component of the research. Four refusals were replaced in the telephone interviews.

The Statistical Package for the Social Sciences (SPSS-X 2.1) analyzed data from the attitude questionnaire. Demographic data was coded as discrete. The scores acquired by a five-point Likert Scale determined the participant's overall attitude score on the agreement-disagreement continuum. Analysis of variance was performed on the 30 Likert Scale items from the attitude questionnaire to see if there were any significant differences among and between groups based on demographic variables.

The telephone interview data by virtue of their qualitative nature, were analyzed using a logical analysis of content. This process strengthened the researchers confidence and ability to converge

on a stable and meaningful category set by exposing the responses and category to searching criticism (Lincoln & Guba, 1985). The original list of categories was reduced by providing improved articulation and integration. Following an in-depth analysis of each telephone interview schedule, findings across subjects were identified by similar and divergent themes.

Results

The original 1981 study noted conflict in the literature on attitudes held by influential stakeholders toward adult students: some were rather negative in nature, while others found attitudes to be quite positive. The replication study supported the claim that the attitudes of academics and decision-makers towards adult learners/students are as positive as found in the 1981 study. Significant quantitative differences between and among groups in the 1981 and 1995 studies diminished suggesting an increase in positive attitudes over the past 15 years. Results of the 1981 and 1995 studies follow.

Quantitative Results

Similar Results of the 1981 Study and 1995 Study

1. Both the 1981 study and the 1995 study found differences among academics and decision-makers subgroup based on the attitude questionnaire. Significant differences were found between subgroups in the 1981 study using a post hoc analysis. Using post hoc analysis in the 1995 study did not reveal any significant differences. The differences found in the 1981 study have diminished compared to the 1995 study, and perhaps result in more positive attitudes.

2. Both the 1981 study and the 1995 study found significant differences in both the total sample and the academic sample based on gender. When the decision-maker groups are removed in both studies, the gender differences are reported only for the academic groups. Females in both studies had more positive attitudes towards adult students than males. These results suggest little change has occurred within the male academic community and their attitudes towards adult students have remained less positive than their female counterparts 15 years later.

3. In both the 1981 study and 1995 study, significant differences in attitudes between age groups did not exist. These results suggest that age is not a significant variable for academics.

4. Both the 1981 study and 1995 study reported attitude differences in academics groups based on education level. A post hoc analysis, Honest Significant Differences (HSD) was conducted with both studies to discover within group differences. The analysis revealed no significance within group differences in either study.

5. Lastly, no significant differences were found in either study based on academic rank. These results revealed that academic rank does not seem to influence attitudes.

Differing Results of the 1981 Study and 1995 Study

1. In the 1995 study there was no difference between the attitudes of academics and decision-makers toward adult students. In the 1981 study academics expressed a significantly more positive attitude toward adult learners than did decision-makers. The mean score for academics was 110.26; decision-makers mean score was 107.37. The F value was 5.22 with 1 degree of freedom, p equaling .024. These results revealed that fewer differences exist in the 1995 study between academics and decision-makers compared to the 1981 study.

2. In the 1995 study the decision-making group did not find significant difference, in their attitudes towards adult students while in the 1981 study a difference was found. The oldest group of decision-makers had the lowest mean score in the 1981 study. Fifteen years later when the 1995 study was conducted, no differences were found in attitudes based on age of decision-makers. This change could be attributed to the fact the oldest decision-making group has retired.

3. In the 1995 study, academics and decision-makers grouped by educational level found no significant differences in attitude toward adult students. In the 1981 study, academics and decision-makers grouped by educational level indicated a significant difference in attitude toward adult learners. Masters degree participants held the most positive attitudes while subjects holding bachelor degrees had the least positive attitudes. In the 1995 study, no significant differences were revealed in the total sample; however, significant differences were found within the academic group.

Qualitative Results

Comparison of the qualitative data between the 1995 study and the 1981 study provided additional insight into the attitudes of academics and decision-makers toward adult students, thereby furthering the richness of the quantitative data. Thirty-nine percent of respondents in the 1981 study reported that adult students were more close-minded than in the 1995 study where 15.3 percent said that adult students were more close-minded. In the 1981 study 48.5 percent of respondents stated that adults were more rigid compared with 23.2 percent in the 1995 study.

Both studies revealed that adult students were described positively by both academics and decision-makers. Eleven percent of academics and five percent of decision-makers described the typical adult student in a way that could be described as negative.

When respondents were asked to describe the term *adult student*, terms such as "many responsibilities," "returning to school," and "re-tooling" were used. These responses were similar to the responses from the 1981 study which emphasized "re-tooling." Respondents were asked about the importance of continuing education in contemporary society. Responses from both studies highlight the economic realities of education and reveal that more education ensures better employability. In addition, the "learning for earning" concept is supported by both academics and decision-makers.

When respondents were asked about the importance of adults compared to the education of children, the 1995 study showed an increase in the importance education for adults compared to the education for children. The education of adults was as important as the education of traditional age college student more often in the 1995 study.

Themes identified about the challenges facing higher education through the year 2000 were (1) funding levels, (2) cost of higher education, (3) vision of higher education, (4) recruitment, (5) leadership, (6) technology, (7) change, and (8) legislative support. Frequency count of major challenges were significantly higher than "solutions to challenges." Thus it appears that academics and decision-makers were clearer about the major challenges than solutions to meet those challenges.

Both academics and decision-makers supported an increase in access to University of Wyoming degree program offerings throughout the state by an increased utilization of distance learning technologies. Themes emerging "on the identification of trends in today's society which may impact adult students and institutions of higher education" were increase in tuition costs, development of education haves and have nots, technological change, economic support, demographic change, career transition, higher education leadership, needs of business/industry, just in time education, and distance education strategies.

Conclusions and Discussion

The first significant result from the 1995 study is that attitudes of academics and decision-makers are positive and appear more positive than in the 1981 study. This could be attributed to a heightened awareness and interest in adult education and specific interest in adult students returning to higher education. In addition, a recognition by academics and decision-makers of the impact of technological change, increased focus on lifelong learning, and demographic changes could be responsible for this perceived increase in positive attitudes. In fact, there appears to be more stability and congruence between and among groups when the 1995 study is compared to the 1981 study. The results of the telephone interviews suggest that academics and decision-makers view adult students favorably and these results support the quantitative data acquired through the attitude questionnaire.

Finally, even though attitudes appear to be positive and perhaps more positive than they were 15 years ago, there is a cautionary note. While positive attitudes were expressed toward adult students, inferences should not be made that positive attitudes by academics and decision-makers mean better opportunities for adult students. Although attitudes are often predictors of behaviors, it does not mean that positive attitudes lead to positive action. As Geyer (1985), Home (1995), Kasworm (1990), and Raven and Jimmerson (1992) outlined in their findings, and is indicated in this study's findings, behaviors which support adult students are different than positive attitudes toward adult students. The 1995 study's findings support that positive attitudes toward adult students are held by academics and decision-makers, while at the same time acknowledges that behaviors that translate into increased support for adult students are distinctly different than positive attitudes.

Further Study

Building a data base on attitudes towards adult students could be accomplished by replicating the study in other regions of the United States or in other countries, or with other academic and decision-maker populations (community college faculty, professional staff, support staff, etc) in urban settings. Further investigation into the differences between male and female academics

attitudes towards adult students, might also assist in reducing these attitudinal differences. Lastly, a longitudinal study every five years might identify changes and trends over time that are emerging and would assist in a better understanding of factors which influence attitude change towards adult students.

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