Personality Comparison Between On-Campus and Distance Learners: Implications for Continuing Social Work Education

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Personality Comparison Between On-Campus and Distant Learners: Implications for Continuing Social Work Education

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Distance education (DE) literature suggests that students' personality characteristics may be related to success or failure (Moore & Kearsley, 1996). Specifically identified as successful characteristics are introversion, field independence, persistence, determination, and high need for achievement (Moore & Kearsley, 1996). One rationale for the need for such personality characteristics is that the DE classroom does not provide adequate interaction between sites, resulting in a lack of "classroom community." Therefore, a suggested solution is to screen for students who are highly motivated and mature (McHenry & Bozik, 1995). Through better selection methods, DE programs may decrease their student drop-out rates from the currently reported rates of 30-50% (Moore & Kearsley, 1996).

The purpose of the present study was to compare personality characteristics between on-campus and distance learners. In addition, the effects of personality characteristics on DE students' satisfaction levels were explored.

Literature Review

According to a 1996 survey, 16% of social work education programs reported the use of DE technology, a 5% increase over the previous two years (Siegal, Jennings, Conklin, Napoletano & Flynn, 1998). Conklin (1993) reviewed over 200 articles and concluded that "distance education can be used to teach social work students in colleges and universities as well as to train social work practitioners in the workplace" (p. 51). Conklin reported that no articles were found to indicate that social work educators should not use DE. The advantages noted were overcoming geographic barriers, financial savings as a result of decreased travel expenses, and exemplary teaching presented to a larger audience or videotaped and used an infinite number of times.

The equivalency of DE and on-campus programs has been well documented, particularly in terms of academic achievement, i.e., grades, test scores, retention, and job performance (Forster, 1997; Haagenstad & Kraft, 1998; Haga & Heitkamp, 1995; Hollister & McGee, 1998; Petracchi & Morgenbesser, 1994; Petracchi & Patchner, 1998; Raymond, 1988; Sheafor, 1994). "The usual finding in these comparison studies is that there are no significant differences between learning in the two environments, regardless of the nature of the content, the educational level of the students, or the media involved" (Moore & Kearsley, 1996, p. 62). Further, DE students' satisfaction levels have been shown to equal or exceed those obtained for traditional classroom offerings (Haga & Heitkamp, 1995; Heitkamp, 1995; Jennings, Siegel & Conklin, 1995; Kelley, 1993; Kikuchi & Sorensen, 1997). Similarly, Freddolino (1996) noted that distant learners in one off-campus location had higher overall scores on the Adult Classroom Environment Scale than on-campus students taking the same four courses in a "non-linked" classroom. Others (Ligon, Markward & Yegidis, 1997) found that a substance abuse course taught in a DE format received higher ratings than the identical course taught in a standard format; conversely, a standard format was preferred for a family practice course. In an evaluation of two practice courses, both of which were taught by alternating in-person and two-way interactive televised instruction, no significant difference in student appraisals of instructional quality was apparent for one course; for the other course, students exposed to both methods favored in-person over televised instruction (Thyer, Artelt, Markward & Dozier, 1998).

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Nevertheless, concerns have been expressed regarding the interactive nature of the DE classroom. Kruger and Champanis (1980) found that more messages were used by individuals in face-to-face versus interactive television situations. O'Conail, Whittaker and Wilbur (1993) found a more formal style of communication during interactive television exchanges. Gehlauf, Shatz, and Frye (1991) noted that "participants reported a reduction in a variety of classroom interaction activities (e.g., small group and simulation activities)" (p. 23). McHenry and Bozik (1995) concluded that "There appeared to be little 'classroom community.... The teacher was not observed using any techniques to encourage discussion between sites or between students within each site" (pp. 366-367). Although Heitkamp (1995) observed positive evaluation results in terms of both academic outcomes and student satisfaction, she expressed the concern that DE students may feel isolated from the instructor because of the lack of face-to-face contact. Blakely and Schoenherr (1995), after reviewing the use of telecommunication technologies in social work, recommended an interactive audio-video technology which would allow students and the instructor to see and talk with each other in "real time," along with on-site coordinators who would distribute and collect materials, lead in-person discussions, and facilitate experiential exercises. Using this model of social work education (i.e., interactive televison with on-site facilitators), Potts, Hagan, and Wilson (1997) reported an 87.5% student retention rate.

In light of such concerns about the extent to which DE programs meet student needs for interpersonal interaction, socialization, etc., suggestions have been made regarding ways to improve the classroom environment, thereby maximizing the educational experience. One option lies in the student selection process, i.e., perhaps some students are more likely than others to be able to accommodate to a lack of "classroom community." The present study focuses on personality characteristics as possibly relevant factors in this regard.

Methods

This study compared personality factors between 37 DE and 53 on-campus students and examined the effects of personality characteristics on satisfaction levels among DE students. Interactive television was used to link two rural universities and one urban university in a 3-year part-time MSW program.

Four student groups were included: two off-campus part-time cohorts, an on-campus part-time cohort, and an on-campus full-time cohort. The sample consisted of 17 males and 73 females. The mean ages were 42.2 (off-campus, site 1), 43.5 (off-campus, site 2), 35.0 (on-campus, part-time), and 29.7 (on-campus, full-time). DE students were significantly older than on-campus students ($t = 5.18$, $df = 87$; $p < .001$).

The NEO-Personality Inventory (Costa & McCrae, 1989) was used to measure five facets of personality: neuroticism, extraversion, openness, agreeableness, and conscientiousness. The Five-Factor Inventory (NEO-FFI), a 60-item version of the NEO PI-R, was used. This instrument provides global information on normal personality traits. It consists of five 12-item scales for each domain. It is a self-report measure with five response categories: strongly disagree, disagree, neutral, agree, and strongly agree. Raw scores are converted to standard scores with a mean of 50 and a standard deviation of 10. NEO scores were used to compare the above student groups to one another and to compare each group to the general population norms for each personality trait. Students completed the NEO at the end of a class period during their first year of the program. The response rate was 92.5%.

DE students' satisfaction levels were assessed in three areas: (1) adequacy of instructional technology, (2) ability of instructor to use technology, and (3) availability of local resources (Haga & Heitkamp, 1993). An 18-item self-administered instrument was used. Response options ranged from 1-5, with higher scores indicative of higher satisfaction levels. These data were collected during the final class session of the final year of the program. All DE students agreed to participate in this aspect of the study.

No differences in demographics or NEO scores were noted between DE students from the two sites; thus, these groups were combined for purposes of subsequent analyses. On-campus groups were analyzed separately because part-time students were known to differ in possibly relevant ways from full-time students (e.g., they were older, more experienced in social work, and more likely to be employed). T-tests were used to compare NEO scores between DE and same-model (i.e., part-time) on-campus students, DE and all on-campus students, and all part-time and all full-time students. Comparisons were also made between each group and the general population norms for the NEO. The bivariate correlation between each personality factor and age was assessed using Pearson's R. Since DE students were significantly older than on-campus students, and since age has been shown to be associated with several NEO scores (Costa & McCrae, 1992), multiple regression was used to control for age as a possibly spurious factor in the group comparisons described above. Due to the small number of males in the sample, gender differences were not analyzed. Among DE students, relationships between NEO scores and satisfaction levels were analyzed using Pearson's.

Results

The comparisons between DE students and same-model (i.e., part-time) on-campus students showed no differences in personality factors (Table 1). The comparisons between all part-time and all full-time students also showed no differences. The comparisons between DE and all on-campus students revealed a significant difference in openness (means=57.1 and 62.3, respectively; $t=2.02$, $df=88$, $p=.04$). Compared to the general population norms for the NEO, DE students scored one standard deviation higher than the mean for openness, meaning that they appeared more open to new experiences than the general population. No other personality factors in any of the student groups differed from the population norms.

Age had significant bivariate relationships with two of the five personality factors. Age was associated with openness, such that older students scored higher than younger students ($r=.22$, $p=.04$), and with extraversion, such that older students scored lower than younger students ($r=-.22$, $p=.04$). The significant bivariate difference between DE and on-campus students in openness was re-examined using age as a control variable. In this multivariate analysis, the effect of DE versus on-campus status on openness was no longer apparent (DE=1, on-campus=0; Beta=.14, $p=.27$).

Two out of 15 possible correlations between NEO and satisfaction scale scores were significant (Table 2). Higher scores for conscientiousness were associated with higher levels of satisfaction regarding both the adequacy of the technology and the effectiveness of the instructor using the technology.

Table 1. NEO-Personality Inventory Scores by Group*   Discussion

Personality Factor	General Population	DE1 (n=18)	DE2 (n=19)	OCP (n=31)	OCF (n=22)
NEUROTICISM					
Mean	50.00	49.28	44.11	48.23	50.27
SD	10.00	9.04	9.81	10.00	11.29
EXTROVERSION					
Mean	50.00	53.56	57.68	54.35	56.09
SD	10.00	5.27	8.67	10.48	8.40
OPENNESS					
Mean	50.00	63.06	61.58	56.42	57.95
SD	10.00	12.42	11.22	12.82	10.71
AGREEABLENESS					
Mean	50.00	52.00	51.89	49.61	52.91
SD	10.00	10.07	8.81	11.09	10.93
CONSCIENTIOUSNESS					
Mean	50.00	45.56	52.21	49.35	50.68
SD	10.00	8.46	9.18	10.41	9.66

*DE1/DE2= Distance education rural sites.

OCP= On-campus part-time comparison group.

OCF= On-campus full-time comparison group.

Table 2. Correlations Between NEO Personality Scores and Satisfaction with Technology, Instructional Quality, and Resources Among Distance Education Students (N=37)

Personality Factor	Technology	Instruction	Resources
NEUROTICISM	-.06	-.10	-.22
EXTROVERSION	.12	-.07	-.03
OPENNESS	-.07	-.17	-.26
AGREEABLENESS	-.15	-.02	.31
CONSCIENTIOUSNESS	.50**	.39*	.27

*p<.05   **p<.01

Students in this study were similar demographically to those in other DE programs in social work. Most MSW students are female (both DE and on-campus cohorts) and DE students tend to be older than on-campus students (Freddolino, 1996; Haga & Heitkamp, 1995). Due to the geographic barrier, many of the DE students did not have access to graduate education in their rural communities prior to this first offering of the MSW program through interactive television. Perhaps this age difference between DE and on-campus students will decrease as rural students have increased access to graduate education through DE programs.

Results of this study indicated a weak but significant age effect; older students scored higher on openness and lower on extraversion than younger students. The results were thus consistent with the NEO population norms for extraversion (older people in the population also tend to score lower on this factor), but were inconsistent with the population norms for openness (Costa & McCrae, 1992). In this sample, older students were more open than younger students. Perhaps involvement in a DE program which includes the use of modern technologies such as e-mail, interactive television, and computers requires a broad-minded individual who is open to new experiences. This may be especially true given that this was the first cohort in a newly initiated program (i.e., the pioneers). In addition, higher levels of education tend to predict higher levels of openness; therefore, graduate students would be expected to score higher than the general population (Costa & McCrae, 1992). The high levels of openness found in this study were also consistent with the findings of Horner and Whitbeck (1991): "... the person attracted to social work values relationships highly and is service-oriented, open-minded, and self-aware" (pp. 38-39). This result is also consistent with the finding of Wodarski, et al. (1988) who reported that MSW students scored lower than the general population on Rokeach Dogmatism, a measure of authoritarianism. One could speculate that students who score high on openness to new experience would show

characteristics of flexibility rather than the rigid traits found in individuals who score high on authoritarianism.

Minimal personality differences were found to exist between DE and on-campus students. Moreover, after age was controlled, the single difference noted between DE and on-campus students (on the openness factor) was no longer apparent, suggesting that the original bivariate relationship was spurious. That is, DE students might have attained higher scores for openness because they were older than on-campus students, rather than because DE programs attract persons with this intrinsic personality characteristic. Further, personality characteristics were associated with satisfaction with the DE program in only two instances (i.e., higher levels of conscientiousness were related to higher levels of satisfaction with the technology itself and with the instructor's use of the technology). This personality characteristic is associated with academic and occupational success. High-scorers tend to be purposeful, strong-willed, reliable, and determined; low-scores tend to be less driven to succeed and less able to get themselves organized (Costa & McCrae, 1992). Thus, it is possible that those individuals who were more conscientiousness were more determined to succeed and therefore tried harder to relate to the mode of instruction offered through the DE program. On the other hand, given that a total of 15 correlations were observed (i.e., five NEO scales with three satisfaction scales), these results may have been an artifact of multiple comparisons.

In conclusion, the results did not support the premise that inherent personality characteristics are salient factors in the selection of DE students or in DE students' satisfaction levels. We found no evidence to suggest that student selection would be appropriate to address issues of communication patterns in DE classrooms, or to address concerns expressed by others that DE environments are lacking in interpersonal interaction, socialization opportunities, etc. (Gehlauf, Shatz & Frye, 1991; Heitkamp, 1995; Kruger & Champanis, 1980; McHenry & Bozik, 1995; O'Conail, Whittaker & Wilbur, 1993).

Other means of improving the DE learning process might be explored more fruitfully. New teaching strategies and methods for improving the classroom environment and increasing socialization opportunities at DE sites are currently needed. This can be facilitated by an institutional framework which supports DE faculty by providing training, compensation, and reward levels commensurate with those in traditional classrooms.

Many factors may contribute to or detract from the success of DE programs. This study was focused on only one of these factors using only one measure of personality among a relatively small group of students in a single MSW program. Other continuing education programs might also benefit by scrutinizing the classroom environment and the socialization needs of students as opposed to their personality characteristics. It is clear that further research is needed in this area.

References

Blakely, T. J. & Schoenherr, P. (1995). Telecommunication technologies in social work distance education. Journal of Continuing Social Work Education, 6(3), 8-12.

Costa, Jr., P. T. & McCrae, R. R. (1989). NEO five factor inventory-form S. Odessa FL: Psychological Assessment Resources, Inc.

Costa, Jr., P. T. & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO personality inventory. Psychological Assessment, 4,5-13, 20-22.

Conklin, J. J. (1993). The development of a strategic plan for implementing distance education in social work education. ERIC No. ED360892.

Freddolino, P. P. (1996). Creating quality learning environments in distance interactive T.V. classrooms: Efforts and results. A paper presented at the Annual Program Meeting of the Council on Social Work Education, Washington, DC.

Gehlauf, D. N., Shatz, M. A. & Frye, T. W. (1991). Faculty perceptions of interactive television instructional strategies: Implications for training. American Journal of Distance Education, 5(3), 20-28.

Haga, M. & Heitkamp, T. L. (1995). Evaluation results of an innovative social work distance education program. A paper presented at the Annual Program Meeting of the Council on Social Work Education, Chicago.

Heitkamp, T. L. (1995). Social work education at a distance: An innovative approach. A paper presented at the Annual Program Meeting of the Council on Social Work Education, San Diego, CA.

Horner, W. C. & Whitbeck, L. B. (1991). Personal versus professional values in social work: A methodological note. Journal of Social Service Research, 14(1/2), 21-43.

Kruger, G. P. & Champanis, A. (1980). Conferencing and teleconferencing in three communication modes as a function of number of conferees. Ergonomics, 23(2), 103-122.

McHenry, L., & Bozik, M. (1995). Communicating at a distance: A study of interaction in a distance education classroom. Communication Education, 44(4), 362-372.

Moore, M. G. & Kearsley, G. (1996). Distance education: A systems view. Belmont, CA: Wadsworth Publishing Company.

O'Conail, B., Whittaker, S. & Wilbur, S. (1993). Conversations over video conferences: An evaluation of the spoken aspects of video-mediated communication. Human-Computer Interaction, 8(4), 389-428.

Potts, M., Hagan, C. & Wilson, G. (1997). A systems model of a distance education program: Input, throughput, and output. A paper presented at the conference entitled Information Technologies for Social Work Education: Using to Teach-Teaching to Use, September 8, 1997, Charleston, SC.

Siegel, E., et al. (1998). Distance learning in social work education: Results and implications of a national study. Journal of Social Work Education, 34, 71-80.