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ABSTRACT
        This paper begins with a description of National
University's online program in educational administration for the California
preliminary administrative services certificate, including an overview of the
program, the development of a hybrid program that includes both online and
face-to-face courses, and the geographic distribution of students. Results of
a program evaluation are then presented, covering the quality of student
work, the attitudes of the online students, student evaluation of the
program, and the self-efficacy for self-directed learning that online
students bring to their courses. The survey questions about demographic
information and student attitudes are included with the mean of responses.
(MES)

# What We Know and What We Want to Know About Online Education

By: Gary Hoban & Beverly Neu

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# WHAT WE KNOW AND WHAT WE WANT TO KNOW ABOUT ONLINE EDUCATION

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## Introduction

As the world has become more and more dependent on technology, institutions of higher education have turned to online instruction as a technique to meet students' needs for credential programs. It is estimated that 700,000 people took online courses last year. That number is expected to grow to 2.2 million by 2002 (*San Francisco Chronicle*, August 14, 2000). Colleges and universities have responded to students' enthusiasm for online instruction.

## Background

For almost twenty years, National University has prepared students in educational administration leading to the California preliminary administrative services certificate using a traditional, face-to-face on-ground format. In the 1999-2000 academic year, National University developed an online program in educational administration for the preliminary administrative services certificate. This certificate is required to be a principal as well as to seek other administrative positions in the State of California.

Since offering such a certificate program online was a significant departure in instructional delivery, not only in revising curriculum but also as a way of preparing future school administrators who traditionally engage in many personal, face-to-face training activities, there was much internal debate by the program faculty. At the outset, National University provided a training program for its instructors on how to prepare and write courses for online instruction through E-College located in Denver, Colorado. Also, a grant was written to provide additional training for the instructors writing the courses.

The goal was to have all eight of the nine courses in the preliminary administrative services certificate written and online by January 2000. (The field service component of the program remained an on-ground, face-to-face course.) This goal was met. Dr. Gary Hoban, lead faculty for the educational administration program, coordinated the effort. As newcomers to online instruction, all educational faculty members at the University learned as they went along. It was a daunting challenge, but rewarding.

All educational administration classes at National University– online and on-ground – are offered in a one month format. The classes are presented in a concentrated format and prove to be intensive for students and faculty. On-ground courses meet either

Monday/Wednesday or Tuesday/Thursday from 5:30pm to 10:00pm for eight sessions. There is a final daytime session on the last Saturday of the month in which the class is offered. Online courses are also completed in one month as well. In the online program, however, students work at their own pace. The courses are available twenty-four hours a day, seven days a week and instructors respond to students within 24 hours.

The content of the on-ground and the online courses is virtually identical in textbooks, assignment and readings. In online classes, threaded discussions are used in each lesson to replace the face to face discussions in on-ground classes. Threaded discussions are dialogues between the instructor and the students regarding posted lectures, assigned readings, and questions posed by the instructor and students. What distinguishes threaded discussions from chat rooms is that they are asynchronous and that students can respond at their own pace and at times convenient to them. Also, students must respond to every threaded discussion topic if they are to receive credit for the course. Students often respond to their fellow student responses as well as to the comments of the instructor.

## Changes in Mid-Program

The original design of the program was to have all eight courses presented entirely online. The online program began in February 2000, with eighteen students. In May 2000, the University was notified by its regional accrediting agency (WASC) that all of the educational administration credential courses could not be offered exclusively online. It would be necessary to have four courses offered with face-to-face involvement between the students and the instructor. Thus, a "hybrid" program was born.

The hybrid educational administration program at National University requires that students work online for four weeks and meet face-to-face with an instructor on the last Saturday of the month in which the course is offered. Since the students in the online program lived throughout the state of California, this was a challenge. It was determined that there would be three sites for the Saturday class that would meet from 9:00am to 4:00pm. The sites selected were Sacramento, Fresno and Costa Mesa and students commuted to the site nearest to them. Adjunct professors were selected to provide instruction and facilitate discussions at the two sites that the online instructor could not personally visit. The online instructor was responsible for planning the instructional objectives and activities with the adjunct professors at the other sites to assure that there was academic consistency throughout the program.

Students responded with enthusiasm to this plan, as the alternative would be to not offer the remaining classes online at all. Some students suggested that it would be preferable to meet sooner than the last Saturday so that they could become acquainted with their classmates. The rationale for meeting on the last Saturday is that students have covered all of the course content and can participate in a better discussion of the subject.

## Geographic Distribution of Students

Students in both the original exclusively online courses and the hybrid online courses were distributed throughout the State of California. For the sake of organizational efficiency, even though the program is headquartered, as are all National University programs, in San Diego, the students in the hybrid part of the program were grouped according to three regional University centers, which have extensive on-ground campus facilities and on-ground educational administration programs. These centers, as noted above, are in Costa Mesa, Fresno and Sacramento. (All students, whether in the exclusively online or hybrid classes, work with faculty at one of the regional sites offering the program on-ground--San Diego, Costa Mesa, Los Angeles, San Bernardino, Fresno, San Jose, Sacramento--to complete their field work.)

Students who were in the hybrid program and who were clustered in the Costa Mesa region came from rural areas and inner city Los Angeles, San Diego, and Orange County. Some students were a few miles from the center while others were about 125 miles from it.

The Fresno center serves a much larger geographical area, from Bakersfield to north of Merced, a north-south distance of nearly 300 miles in the Central Valley of California. Most of the students in this area came from the Merced area, which is about 80 miles from the University's Fresno campus. Others came from the foothill areas of the Sierra Nevada Mountains. In all cases, they generally were from relatively long distances from a campus reached, in many cases, by less than friendly roads.

The Sacramento center has the broadest geographical sweep of students – from south of Sacramento to Redding in the north. This is a drive of approximately three hours from central Sacramento. Many students lived sixty or more miles to the east in Placer County. The Sacramento center served students from the coastal Santa Cruz area and Bay area as well.

This geographical dispersion of students underscores how distance from a campus makes online instruction an attractive alternative to coming to an on-ground class twice a week. For some of the students in the program, it was the only way that they had access to a program that allowed them to work toward a preliminary administrative services certificate. There were no traditional universities in the areas in which they lived and worked or, if there were, the time constraints made attendance extremely difficult.

Distance alone is not a factor which makes online instruction an attractive option. Most of the students who completed the first offering of the educational administration program, however, have done so because of the distance issue. Several chose this option because they were not able to schedule a class at their on-ground site at a time which was convenient – either in terms of completing their programs in a timely fashion or because of unique personal circumstances. These circumstances ranged from becoming a new parent to experiencing unusual time constraints imposed by their jobs.

There are pluses and minuses to the wide geographic distribution of the students in online and hybrid courses. The wide spread geographical distribution allows students from large urban districts and small rural districts to interact over common educational issues. The difference in perspectives is enlightening and does come out in the exchange in threaded discussions. On the other hand, there can be less opportunity for discussion of problems unique to certain types of districts.

## What Do We Know About Online Education?

Now that the first program— part exclusively online and part hybrid—has been completed and several students have finished their field work and been recommended for California preliminary administrative services certificates, it is time to ask some questions. It is important to assess the program with a variety of measures, most importantly the quality of student work. Also of interest to the developers of the program was the attitude of online learners--especially those who had participated in both the exclusive online and the hybrid versions of the program. These learners' evaluations of the courses provided important assessment data as well. And another area of inquiry, as part of the ongoing research of one of the program developers, was the self-efficacy for self-directed learning that online learners (who, it is assumed, must be self-directed learners) bring to such an instructional delivery system. A variety of approaches to begin research to answer these and other questions were initiated and the results, as a research project in process, are shared below.

## Quality of Student Work

Most of the instructors who have taught courses in the program, both on-ground and online, would observe that the quality of student work in both formats is comparable. The online courses closely parallel the onground courses in content, structure, and requirements. One element does emerge favoring online instruction – in this format every student must respond to the questions posed through the threaded discussions. In many on-ground classes only a few students respond and participate in discussions.

Even though every student responds, the online format appears to foster a flat response tone from students. They stick to safe, textbook oriented responses. Rarely are there passionate responses and challenging discussion is hard, but not impossible, to provoke. Many students online do not ask clarifying questions. Perhaps the most significant difference between online and on-ground classes is the texture or feel of discussion. The hybrid approach allows for the development of some degree of texture at the Saturday sessions, but it may not be enough.

At the conclusion of the program, both on-ground and online, students must complete a comprehensive exit examination under proctored circumstances at the University site nearest them. The examination is scored using a program developed rubric. To date, only three students have completed the exit examination. Their scores were comparable to those of students who completed the program on-ground, with one on-line student

scoring higher than the usual level of on-ground students. Also, within the online courses, the requirements—tests, quizzes, papers, and projects—are virtually identical to those found in the on-ground courses. Student achievement by the online students has been comparable to that of the on-ground students. As more students complete the program, it is hoped that more definitive assessment data will be available. The preliminary results indicate that the online program results in the same level of quality in student work as found in on-ground courses.

## Attitudes of the Online Students

To assess the attitudes of the online students toward the program, a survey was developed and given to the students at the mid-point in the program, at the conclusion of the first hybrid class. All 21 students in that class completed the survey at the different sites at which the on-ground session for that course met.

The first part of the survey dealt with demographic information. The questions with the range *(R)* and mean *(M)* of responses follow.

1. How many online courses have you taken at National University?
   *R=0-5   M=2.4*

2. How many online courses have you taken at other institutions?
   *R=0   M=0*

3. How many hybrid online courses have you taken at other institutions?
   *R=0-20   M=.95*

4. How many on-ground classes have you taken at National University?
   *R=0-31   M=13*

5. What is your current position?
   Teacher (16), District Office (1), Assistant Principal (1), Program Specialist (1), Parent (1), Program Coordinator (1)

6. What level is your school or assignment?
   Elementary (9), Middle School (5), High School (4), District Office (1), Adult School (2)

7. Is your school in an urban or rural district?
   Urban (11)   Rural (10)

8. What is the size of your district?
   *R=250-350M   M=36000*

How long have you been in your current position?
   *R=1-10,   M=5*

The responses to these questions show that most of the respondents are teachers, are evenly divided between serving in urban and rural districts, and that they have limited experience taking online courses, hybrid or exclusively online. The students do, however, have relatively significant experience with on-ground classes at National University and, thus, have a basis for comparison.

The responses of these students to the survey regarding their attitude toward and opinions of exclusively online and hybrid online courses follow. The responses (N=21) are expressed as a mean *(M)* score based on a five point scale with *1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree;* and *5 = Strongly Agree.*

1. I am satisfied with online instruction. *M = 4.52*

2. I prefer online instruction to on-ground instruction. *M = 4.33*

3. I am satisfied with online hybrid instruction. *M = 3.90*

4. I prefer online hybrid instruction to online instruction. *M = 2.90*

5. I prefer on-ground instruction to hybrid online instruction. *M = 1.95*

6. I prefer on-ground instruction to online instruction. *M = 1.95*

7. I enjoy the threaded discussions in online/hybrid instruction. *M = 3.95*

8. I am satisfied with my level of learning in online and hybrid online courses. *M = 4.71*

9. I am satisfied with the lectures in online and hybrid online courses. *M = 4.80*

10. I am satisfied with the quality of instruction in online/hybrid online courses. *M = 4.38*

11. The rigor in an online/hybrid course class is equal to that in an on-ground class. *M = 4.14*

12. The quality of instruction in an online/hybrid online class is equal to that in an on-ground class. *M = 4.33*

13. I was able to obtain the textbook. *M = 4.66*

14. I am satisfied with the admissions process for online/hybrid online classes at National University. *M = 4.14*

14. I am satisfied with the credentialing process for online/hybrid online classes at National University. *M = 4.24*

15. I will enroll in additional online/hybrid courses. *M = 4.80*

16. I feel that I get more personal attention as a student in an online/hybrid online class.
   *M = 4.15*

17. I prefer online/hybrid classes because I have flexibility with my time. *M = 4.80*

18. Online/hybrid online courses are easier than on-ground classes. *M = 2.1*

19. I will recommend online/hybrid classes to my friends and colleagues. *M =4.80*

As can be seen from the responses to these questions, most of the students have a positive to very positive view of the online/hybrid online program. The flexibility of time given to the students in the online program was a major attraction and there was little doubt that the students preferred online and/or online/hybrid instruction to on-ground instruction. There appeared to be little perceived difference in the rigor of an online course as opposed to an on-ground course and students rejected the assertion that online/hybrid courses are "easier than on-ground courses." In fact, several students stated their belief that the online courses were *more* rigorous than the on-ground classes. The only slightly discordant note came when the students were asked if they preferred online/hybrid classes to exclusively online classes. The preference was for exclusively online courses. That preference may reflect the fact that students did not like having to travel to a regional site for an all-day class which was a requirement for a hybrid course. Despite some minor misgivings about the onsite time commitment required for the hybrid course, however, the students overwhelmingly endorsed the online/hybrid program when they were asked if they recommend it to a friend or colleague.

## Student Evaluations

Student evaluation response to the online program, both the exclusive online and the hybrid courses, has been generally quite positive. National University, as do most universities, invites students to evaluate courses upon their completion. For the most part student evaluations of the online courses have been quite strong. Students have shared comments that they have learned a great deal in this format. When there was the possibility that the program might not continue, there was extreme reaction requesting that the program not be interrupted.

At National University, the student evaluation form asks a number of questions regarding the course, facilities, the instructor, and overall assessment of instruction. Students are asked to rate the course on the different items using a 1-5 point scale, with a "5" being the highest assessment score possible. While there are a number of questions asked on the student evaluation form, it is accepted practice at the University to use the assessment of the instructor and the overall assessment of instruction as key indicators. For the most part, over the years the mean scores in the on-ground courses for these indicators have been over 4, usually around 4.5. An analysis of the student ratings for the online program shows this pattern to hold. The mean score for assessment of instructor for the program was 4.11 and for assessment of instruction, 4.14. One of the courses resulted in a lower evaluation score because the course started late as the result of the illness of the

scheduled instructor. Also, that particular course was significantly different in format and the inability of the scheduled instructor to teach it created unforeseen technical and instructional complications. With the score from that course removed, the mean for assessment of instructor was 4.34 and for assessment of instruction was 4.33. There was no difference in the evaluations of courses whether they were exclusively online or hybrid.

These numbers, considering that this was the first time the program was delivered online, are quite consistent with the student ratings of on-ground courses. All of these course evaluations included student comments and, for the most part, these comments were quite positive. Many of them noted the rigor of the online courses, observing that they were more demanding than they had originally thought they would be.

**Self-Efficacy for Self-Directed Learning**

Another line of inquiry pursued by faculty at National University is the self-efficacy for self-directed learning that online students bring to their courses. In 1995, Hoban and Sersland at National University developed a self-efficacy for self-directed learning questionnaire. This questionnaire, based on the self-efficacy construct of Albert Bandura (1977), is designed to assess the confidence students have to be self-directed learners and to use technology as a way to access learning on their own. The questionnaire has been field tested at a number of universities and in a number of disciplines and a strong relationship with the nationally normed Guglielmino Self-Directed Learning Readiness Survey (1988) has been demonstrated. Online learners, it is assumed, must be self-directed to a large extent or they will not succeed in their classes.

As part of the research related to the students completing the educational administration program online or in the online/hybrid mode, the questionnaire was administered online at the conclusion of the program. This proved not to be successful, as most of the students did not respond or experienced difficulty in electronically marking the responses on a 1-10 scale. There are ten questions with the highest self-efficacy score being 100. The two students who did respond recorded scores of 65 and 94. The first score is from a student who had only taken several courses online while the second score is from a student who completed and exited the program. Several other students sent comments by e-mail and expressed their preference for online/hybrid online classes, especially for the convenience of doing the work at home at on their schedule.

A weakness of using the self-efficacy for self-directed learning questionnaire at a mid or end point in the program is that whatever pre-program predictor ability the instrument might have is lost. Also, there is the possibility that since the students have completed one or more online/hybrid courses, the experience alone might have raised their self-efficacy. Future use of the instrument will concentrate on its being used as a pre-program assessment instrument. National University is contemplating offering the educational administration program in Alaska and this spring future students were visited at their home site just north of Anchorage. They completed the questionnaire and recorded a mean score of 77.85 (N = 14) which is relatively high in comparison to the scores of

students who have completed the instrument in earlier studies. These same students will be asked to complete the questionnaire at the conclusion of the program as part of a post program assessment to determine if their self-efficacy for self-directed learning has increased as a result of their experience of online education.

## Conversations with Online Students

Several students who completed the online educational administration program, both exclusively online and hybrid, were asked, in discussion, their opinions about their preferences. While they indicated that they initially preferred the exclusively online version, they saw the benefits of the hybrid, especially the need for face-to-face contact. One student who has finished the program and is now a practicing school administrator said that he found the hybrid to be the most appropriate way of offering the program. It combined the best features of online instruction with the dynamic of on-ground interaction.

## What We Want to Know

Educational administration program faculty at the University have reflected upon their first attempts at offering their courses online and hybrid/online and have concluded that in the future it is the hybrid model which will be used. Whether that turns out to be the wise decision is what future research should determine. We have learned much about online instruction in the last year, but we have much more to learn. This is but the beginning of our ongoing inquiry into what is the best way to offer our program to students who cannot or do not want to come to our sites for on-ground education.

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