

USING ONLINE LEARNING TO MEET WORKFORCE DEMAND A Case Study of Stakeholder Influence

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The purpose of this initial phase of inquiry was to investigate how stakeholder interests influenced one state's efforts to provide online, undergraduate degree programs to meet workforce needs. The investigation employed an embedded qualitative case study design. The findings showed that the negotiation of consenting and conflicting stakeholder group interests resulted in the prevailing of the interests of some stakeholder group at the expense of the interests of other stakeholder groups.

Traditional education and older forms of distance learning have presented difficulties for non-traditional learners. These learners include busy professionals who travel extensively and unskilled laborers employed in jobs with inflexible hours that make a traditional school schedule unworkable. Many business organizations and academic institutions have turned to online learning using the Internet and other Web-based technologies in order to provide the needed learning experiences for these under-served learners. Over the past decade, online learning has evolved into a growing vehicle for providing adults with new skills, updated information, and new knowledge, often through degree programs. While online

degree programs are primarily concentrated at the graduate, professional level, there is an increasing number of programs being developed at the undergraduate level (Davis, 1999). Unfortunately, a recent Institute for Higher Education Policy analysis of the distance education research literature indicates that distance education research has not kept pace with distance education use. A review of the current literature related to distance education program planning, with a specific focus on online technologies, revealed the same lack of related literature (Benson, 2001).

Because of the number and types of stakeholders typically associated with online degree programs, this study sought to unravel the

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complexity of online degree program planning by examining the roles of the stakeholder groups involved in one state's efforts to meet workforce demands through online degree programming. In doing so, this research makes a much-needed contribution to the literature base related to the planning and implementing of online degree programs.

THEORETICAL FRAMEWORK

For the most part, online degree program development efforts have been approached using existing models from instructional design, adult education, and distance education. The models from these areas can be classified using the taxonomy that Cervero and Wilson (1994a) use for adult education program planning models: classical, naturalistic and critical. Classical models have their roots in systems theory as reflected in Tyler's (1949) curriculum development model. These models take a strict, systematic approach and require the completion of a stepwise process that usually begins with defining objectives and continues through evaluation. Naturalistic models were developed because researchers and practitioners wanted models that were more reflective of the environments in which planning, designing, and learning are actually accomplished. Instead of requiring a stepwise process as in the classical models, naturalistic models accommodate the value judgments of

planners, designers, and developers. Critical models were developed to focus attention beyond content knowledge and skill development to emancipatory action on the part of learners and instructors. Table 1 summarizes the model categories and provides example models from each of the three disciplines.

Cervero and Wilson (1994a) identified key problems with models in each of the categories. Classical models do not "account for the dimensions and variability of planning contexts, the nature of practical judgments, or the values that influence how judgments are made" (p. 17). Naturalistic models fail to provide "any standards, either technical or ethical, for knowing whether the planner has made the 'best' judgment" (p. 20) and do not address the unequal power relationships of the people involved in planning. Critical models fall "short in exploring the ways [political and ethical] insights might be worked out in the everyday world faced by program planners" (p. 24). provide an alternative to the classical, naturalistic, and critical models with their negotiation of power and interests model. According to Cervero and Wilson, "Planning programs is a social activity in which people negotiate personal and organizational interests" (p. 4). They contend that programs are not created by following a series of steps, or by making a set of best judgments, or by identifying power inequities; rather they are created through the social negotiation of the interests of the involved stakeholders .

TABLE 1
Macro-Categories from Instructional Design, Adult Education and Distance Education

	<i>Classical</i>	<i>Naturalistic</i>	<i>Critical</i>
Instructional Design Models	Dick & Carey (1996) Diamond (1998)	Wedman & Tessmer (1990) Tripp & Bichelmayer (1990)	Sanchez-Lugo (1998)
Distance Education Models	Rumble (1986)	Knott (1994) Keast (1997)	
Adult Education Models	Diamond (1998) Rothwell & Cookson (1997)	Walker (1971)	Forester (1989)

PURPOSE AND RESEARCH QUESTIONS

The purpose of this initial phase of inquiry was to investigate how stakeholder interests influenced one state's efforts to provide online, undergraduate degree programs to meet workforce needs. This study is significant because it sought to investigate the online degree program planning process from the social and political perspectives, rather than the technical perspective that is the focus of most related lines of inquiry. The research questions that guided this inquiry are:

1. What interests did the affected stakeholder groups bring to the planning and implementation process?
2. What influence did those interests have on the resulting online degree programs?

METHODOLOGY

The study employed an embedded qualitative case study design (Yin, 1994). Strauss and Corbin (1998) identified three types of problems that are appropriate for qualitative research: attempts to understand the meaning and nature of the experience of persons with problems; explorations into areas about which little is known; and inquiries into feelings, thought processes, and emotions that are difficult to extract or learn about through more conventional research methods. This investigation met all three criteria. This study sought to make meaning of the social and political processes in operation during the planning and implementation of online degree programs. The focus on the socio-political aspect of planning was a new one for the online education environment, and required experiential data that could not be collected through quantitative means.

Case study research is distinguished from the other types of qualitative research in that it is "an intensive description of a single unit or bounded system, such as an individual, program, event, group, intervention, community" (Merriam, 1998, p. 19). Case study design can take many forms. In a single-case design, the

unit of analysis is the case itself. In an embedded case designs, "attention is also given to units or subunits" of the case (p. 41).

The case in this embedded case study was NetEd, a statewide, online, undergraduate degree program initiative undertaken by the university system of a large southeastern state. The embedded cases were the six NetEd stakeholder groups: NetMan, University System Office of Academic Affairs (University System OAA), University NetEd Oversight Committee (University NOC), DevelopInc, Online Faculty, and Online Students.

Qualitative research typically focuses in depth on relatively small samples that are selected purposefully. The case study usually requires two levels of purposeful sample selection: the case level and the participant level (Merriam, 1998). The case level selection of NetEd was done using intensity sampling, a form of purposeful sampling (Patton, 1990). With intensity sampling, the researcher seeks "information-rich cases that manifest the phenomenon of interest intensely (but not extremely)" (p. 171). NetEd's planning and implementation processes manifested the technical and socio-political aspects of planning and implementing online degree programs that were of interest in this study.

Overall, participant level selection was done using the maximum variation form of purposeful sampling. The goal of maximum variation sampling is to "capture and describe the central themes or principal outcomes that cut across a great deal of participant or program variation" (Patton, 1990, p. 172). For maximum variation, participants were taken from each of the six defined stakeholder groups. Within the participant groups, participants were selected using snowball, or chain, sampling. In snowball sampling, the researcher "identifies cases of interest from people who know what cases are information-rich" (p. 182). Table 2 lists the stakeholder groups included in the study, the number of participants in each group, and each group's function.

Qualitative methods consist of three types of data collection: interviews, direct observa-

TABLE 2
Stakeholder Group Summary

<i>Stakeholder Group</i>	<i>No. of Participants</i>	<i>Function</i>
NetMan	5	Provide direction for university system's online degree programming through its marketing and student services efforts;
University System OAA	1	Entrepreneurial unit created by Board of Regents for the NetEd initiative Provide day-to-day NetCore project management;
University NOC	1	In charge of faculty development for system institutions prior to NetCore role Direct NetCore development and policy;
DevelopInc	1	Comprised of Vice-Presidents of Academic Affairs at system institutions Transform faculty-provided content into online courses;
Online Faculty	2	Hired by the University System OAA and reported to that office Provide online course content and teach online courses
Online Student	3	Enroll in NetCore courses offered through NetMan

tion, and documents. The power of the methods is not in their individual use, but in the triangulation resulting from their collective use (Merriam, 1998; Patton, 1990; Yin, 1994). Therefore, this study used all three forms of data collection. Semi-structured, one-on-one interviews of 1.5 to 2 hours were conducted with each of the 13 participants and follow-up email interviews were conducted with six participants. Observations were conducted of seven 3–4 hour meetings in which NetEd stakeholders participated. In addition, more than 50 NetEd planning documents including meeting agendas, committee reports, commissioned studies, program objectives, mission statements, and marketing materials were collected and analyzed along with the researcher's journal.

Data analysis is the "process of making sense of the data" (Merriam, 1998, p.178). Data analysis for this case study had descriptive and explanatory components. The descriptive component provided detailed descriptions of the case, the embedded cases, the planning process, and the stakeholder interests. In the explanatory component, the stakeholder interests and the planning process were viewed from the perspective of the negotiation of power and interests model (Cervero & Wilson, 1994a).

Merriam's (1998) version of the constant comparative method was used for the descriptive component. According to Merriam (1998), the researcher using the constant comparative

method begins with a particular incident from a data set (interview, document, or observation) and compares it with another incident in the same data set or in another data set. The comparisons lead to the creation of tentative categories that are then compared to each other. Comparisons among categories are constantly made until all the incidents have been categorized and there is no ambiguity in the categorizations. The analysis of the observations and documents, including the researcher's journal, was conducted concurrently with the analysis of the interviews.

A modified form of Yin's (1994) explanation building was used in the explanatory component of data analysis. In explanation building, the researcher brings a theoretical framework to the analysis and uses the case and embedded cases to verify, fail to verify, or further develop the framework. For this study, the researcher began the explanatory analysis after completing the descriptive analysis. During the explanatory phase of analysis, the researcher compared the case, NetEd, to the theoretical framework to determine how the negotiation of stakeholder interests and the planning process shaped the resulting NetEd online degree programs. For this analysis, the researcher identified instances of negotiation when: the researcher observed the negotiations; stakeholders explicitly discussed the negotiations; consensual or conflicting interests within or across stakeholder groups

impacted the power relationships among the stakeholders; consensual or conflicting interests within or across stakeholder groups impacted the frames defining the NetEd initiative; or consensual or conflicting interests within or across stakeholder groups impacted NetEd's purpose, audience, content, and format.

Validity and reliability take on slightly different meanings in qualitative research. Internal validity refers to how well the data collected capture the reality of the phenomenon under study; external validity, to the transferability of the research findings, or the readers' ability to generalize the findings of the study to their specific situations; and, reliability, to the consistency of the findings, or whether the results are consistent with the data collected. The researcher enhanced the validity and reliability of this study by using triangulation, member checks, and peer debriefings, and by providing a stated theoretical framework and a rich, thick description of the findings that allow readers to draw their own conclusions about the transferability of the findings to their environments, and by maintaining an audit trail of research activities through memo writing and reflective journaling (Merriam, 1998; Yin, 1994).

STUDY LIMITATIONS

Previous research using the negotiation of power and interests model as the theoretical framework has focused narrowly on a single educational program, the size and scope equivalent to a short-term course. This study took a

broader view and focused on a degree program consisting of multiple semester-length courses. The difference in scope of the studies is reflected in the level of analysis conducted. Previous studies explored the depths of the interpersonal interactions and negotiations between individual stakeholders. This study, because of its broader focus, explored the macro-level interactions and negotiations between stakeholder groups, rather than between individual stakeholders. Taking the broader approach allowed the researcher to investigate the negotiation of power and interests within a large-scale project. In order to accomplish this broader approach, the researcher had to relinquish the ability to simultaneously investigate the micro perspectives within each of the stakeholder groups. As a result, the analysis reflects a macro-level view of stakeholder negotiations rather than the micro-level view provided in previous studies.

PROGRAM DESCRIPTION

The case under investigation was NetEd, a statewide, online undergraduate degree program initiative undertaken by the university system of a large southeastern state. NetEd's goal was to provide online degrees in areas of critical shortage as the defined by the state's workforce needs. NetEd consisted of two projects, NetMan and NetCore. NetMan provided a Web portal to online degrees offered by institutions within the state's university system. NetCore was the online core curriculum development project within NetEd. NetCore

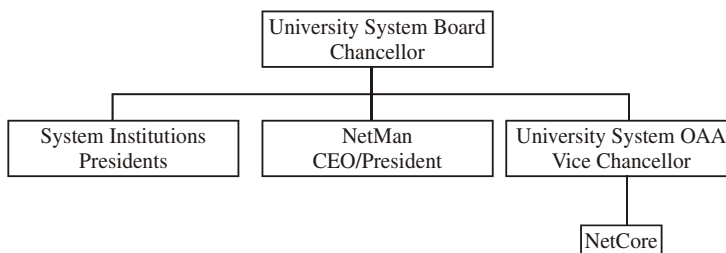


FIGURE 1
NetEd Organizational Reporting Structure

courses formed the first two years of coursework (i.e., the core curriculum) for the online degrees offered through the NetMan portal. The final two years of online coursework were to be provided by various academic departments at the system institutions.

Figure 1 shows the organizational reporting structure of NetEd. NetMan resides in the NetMan organization and reports directly to the University System Board. NetCore resides in the University System OAA. Though Figure 1 shows the NetCore project residing in the University System OAA organization, the project spanned multiple organizations in the university system. The relationships of the six stakeholder groups are described in Table 1.

FINDINGS

Stakeholder Interests. Cervero and Wilson (1994a) described three types of stakeholder interests: expressed interests, which are the stated, or revealed, preferences of individuals involved in the planning process; ideal interests, which refer to “what is really in the interest or good of a person, whether she or he thinks so or not” (p. 124); and real interests, which are the “norms, values, and purposes implicit in what planners do” (p. 125). The findings of this investigation suggest a second taxonomy: overarching interests and operating interests. An operating interest is a perspective of an overarching interest held by one or more stakeholder

TABLE 3
Mapping of Overarching Interests to Operating Interests

<i>Overarching Interests</i>	<i>Operating Interests (Stakeholder Perspectives of Overarching Interests)</i>
Quality	Overcoming stigma associated with online learning Meeting accreditation standards Effective and efficient course development process Effective pedagogy
Development	Institutional development Faculty development Formal training Technical skills development Interpersonal skills development Career advancement
Policy	Surfacing policy issues Applying policy philosophy Clarifying policy
Process	Planning model selection Process control Process flexibility
Buy-In	Through publicity Through accreditation and course transferability Through process
Student Lifestyle Accommodations	Maintaining family and work life Access to online services Accessibility for students with disabilities
Organizational Identity	Structural identity Functional identity
Programming	Fiscal programming concerns Student-related programming concerns
Marketing	Market research Increasing student enrollments
System Change	Limiting change to course modality for accreditation purposes Effecting system-wide change

groups. Table 3 shows the overarching interests and operating interests identified for the NetEd stakeholder groups. Each overarching interest has at least one associated operating interest. For example, the Quality overarching interest has four operating interests and the Policy overarching interest has three.

Table 4 shows a mapping of overarching interests to the stakeholder groups who held those interests. As shown in the table, multiple stakeholder groups shared each of the overarching interests. For example, the NetMan, University System OAA, and Online Student stakeholder groups shared the Student Lifestyle Accommodations overarching interest. In addition, all stakeholder groups held multiple overarching interests. For example, the Online Faculty stakeholder group had four overarching interests: Quality, Development, Process, and Marketing categories. The data indicate that while stakeholders shared overarching interests, the operating interests within those overarching interests were often in conflict. For example, within the Process overarching interest, the DevelopInc stakeholders' operating interest in process control conflicted with the Online Faculty stakeholders' operating interest in process flexibility. Likewise, the University NOC's operating interest in meeting accreditation standards conflicted with NetMan's operating interest in overcoming the stigma associated with online learning.

This finding suggests that stakeholders of online degree programs must go beyond surface level discussions of consensual overarching interests and uncover those potentially conflicting operating issues early in the planning process. If conflicting operating interests are identified early, they can be addressed reasonably without causing any unnecessary stress on the process and the stakeholders. Uncovering conflicting operating interests late in the planning and implementation process can undermine the effectiveness of the process and the stakeholders.

Stakeholder Influence. Cervero and Wilson (1994a) contended that programs are shaped through the negotiations of the interests the stakeholders bring to the planning process. The ability of a stakeholder to influence the negotiations, and thus the resulting program, is determined by the power relationships among the stakeholders. This stakeholder capacity to act may be "socially systematic," derived from the organizational and political structures within which they act; or "socially ad hoc," derived from their role or position with respect to the planning task at hand (p. 128).

Table 5 shows the complexity of stakeholder negotiations involved in NetEd's planning. Consistent with the Cervero and Wilson (1994a) model, the table shows that the negotiations of overarching interests shaped NetEd's audience, content, and format. For example,

TABLE 4
Interests to Stakeholder Group Mapping

Interests	Stakeholder Groups					
	NetMan	University NOC	University System OAA	DevelopInc	Online Faculty	Online Student
Quality	x	x	x	x	x	x
Development	x	x	x	x	x	x
Policy	x	x	x			x
Process	x	x		x	x	
Buy-In	x	x	x			
Student Lifestyle Accommodation	x		x			x
Organizational Identity	x		x	x		
Programming	x	x		x		
Marketing	x			x	x	x
System Change	x	x				

negotiations around the Quality overarching interest shaped NetEd's content, format, and process. The table also shows that the negotiations of multiple interests contribute to the shaping of a single program component. For example, NetEd's audience was shaped by negotiations around the Buy-In, Student Lifestyle Accommodations, Programming, and Marketing overarching interests.

Cervero and Wilson (1994a) posited that an ethical planning process is one in which the interests of all affected stakeholders are substantively represented, regardless of their place in the power hierarchy. The NetEd initiative did not display this characteristic. Influence amongst the NetEd stakeholders stemmed from two seats of power: NetMan and the University NOC. NetMan did planning for NetEd online degree programs and for the NetMan portal, while the University NOC focused more narrowly on planning for NetCore. The influence of each of the six stakeholder groups is discussed in this section.

University NOC Stakeholders. The University NOC consisted of representatives, primarily chief academic officers, from institutions that ultimately would have to approve the NetCore online core curriculum. Each system institution, with the exception of the three research universities and the medical school, elected to place representatives on the University NOC. These institutional representatives had the opportunity to shape policy that gov-

erned NetCore course development and implementation. Decisions on the University NOC were made by consensus, rather than by voting, since it was imperative that all institutions agree with all NetCore policy.

The University NOC model of including representatives from system institutions in NetCore planning activities extended to the NetCore course development teams. Each team had six faculty members representing six system institutions. Using a team approach to NetCore course development allowed individual system institutions to participate in defining an online core curriculum that would be acceptable to all system institutions.

Unlike the University NOC planning team, which was made up of representatives from system institutions, the NetMan planning team was comprised of the NetMan staff with no institutional representation. As a result, NetMan had to "go on the road" to get "buy-in" from system institutions. In these road shows, the NetMan stakeholders presented the findings from their market research and tried to position the NetEd initiative and the NetMan project within that initiative as providing value to the university system and to the individual institutions.

Given the composition of the planning teams of the two projects, it should not be surprising that the University NOC exerted more influence over NetEd planning processes than NetMan. The University NOC planning team included the affected stakeholders while Net-

TABLE 5
Interests that Shaped NetEd

<i>Overarching Interests</i>	<i>Program Aspect Shaped by Negotiations</i>		
	<i>Audience</i>	<i>Content</i>	<i>Format</i>
Quality		x	x
Professional Development		x	x
Policy		x	x
Process		x	
Buy-In	x		
Student Lifestyle Accommodations	x	x	x
Organizational Identity		x	x
Programming	x		
Marketing	x	x	x
System Change	x	x	x

Man planning included none of the affected stakeholders. These University NOC representatives were decision-makers at their respective institutions and could make commitments that their institutions were bound to honor, while NetMan had to rely on the “goodwill” of system institutions.

NetMan Stakeholders. NetMan’s market research indicated student interest in “anywhere, anytime learning.” In fact, NetMan’s initial press releases and Web portal used the phrase, “anywhere, anytime learning.” Unfortunately, NetMan stakeholders were unable to exert the influence necessary to see “anywhere, anytime learning” realized within the NetCore courses, which were class-paced over the length of a semester. Neither NetMan’s position in the university system organizational structure (“socially systemic power”), nor its functional role on the NetEd project (“ad hoc power”) provided the power base the organization needed to ensure that NetCore course development proceeded as the market research dictated. As “facilitators,” NetMan stakeholders were forced to rely on the “goodwill” of other stakeholder groups.

In general, any time a NetMan interest conflicted with a University NOC interest, the University NOC interest prevailed. Unfortunately, it is not clear that the prevailing of the University NOC was in the best interest of the NetEd initiative. One of NetMan’s most fundamental interests, to effect system change, was in direct conflict with the University NOC’s interest of limiting the educational change impact of NetCore to changing delivery media. The University NOC stakeholders prevailed because their interest in meeting accreditation standards outweighed NetMan’s interest in system change.

Online Student Stakeholders. The Online Student stakeholders appeared to exert very little influence on NetEd planning. Students expressed interest in “anywhere, anytime learning,” but all the NetCore courses were class-paced over the length of a semester. Online Student stakeholders had a professional development interest in getting degrees in

areas other than those NetMan defined as “critical shortage areas,” but NetEd’s focus did not change to accommodate this interest. From its inception, the NetEd initiative was focused on providing online degrees in areas of critical shortage to the state’s key businesses. This adherence to the needs of the state’s key businesses suggests that NetMan represented the interests of the business community, instead of the interests of the Online Student stakeholders, when deciding the content NetEd would provide.

Online Faculty Stakeholders. The Online Faculty and University OAA stakeholders brought their historical power relationships to the NetCore project. Historically, faculty members were clients that the University System OAA sought to serve and satisfy. During the NetCore course development process, the relationship gradually changed to one in which the University System OAA became more directive with faculty. Faculty did retain power based on their status as subject matter experts and content providers, and as representatives of institutions who ultimately had to approve or reject the course offerings. Not surprisingly, online faculty stakeholders exerted their strongest influence over the content of the individual courses.

University OAA and DevelopInc Stakeholders. The ability of the University OAA stakeholders and the DevelopInc stakeholders to influence NetEd planning decisions was limited by their organizational relationship to each other and to the University NOC. Since the University OAA hired DevelopInc, DevelopInc stakeholders treated University System OAA stakeholders as clients to be served and satisfied. The University OAA, on the other hand, operated at the direction of the University NOC and treated them with deference.

IMPLICATIONS FOR FURTHER RESEARCH

While research has been conducted to identify strategies for managing power relationships among stakeholders (e.g., Mabry & Wilson,

2001), no research has been conducted to identify strategies to uncover and clarify the overarching and operational interests of stakeholders as identified in this study.

Future research should pursue this line of inquiry. In addition, many studies have examined success factors for students in online courses, but few, if any, have focused on student perspectives on program and course planning and design. Such research would be a step in the right direction towards including student perspectives, which were discounted in the NetEd project, in the planning and design process.

Future research also should consider the possible integration of the social and political focus of Cervero and Wilson's model with the technical focus of traditional instructional design and program planning models. An integrated model might better capture the environment in which planners and designers do their work. This future research should include program models with stakeholders from the business community.

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