

New Forms of Higher Education

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Abstract

The present study is exploratory in nature. In order to examine the forms of higher education organizations two organizations— a traditional and an innovative institution—have been studied. Data were collected on organizational learning contract and the student recall of learning outcomes. The study has revealed that the innovative institution is dominant than the traditional one although both have positive scores on learning outcomes. The organizational learning contract enables an organization and the client to mutually commit for better inputs and learning. There is, however, a need for self designing system to strengthen basic contract.

Key words / phrases: *Traditional institution, Innovative institution, Organizational learning contract & Learning outcome.*

The goal of this paper is to highlight some of the features of new innovative institutions of higher education and contrast these features to a more traditional institution. We want to explore some alternative forms of higher education. Our label, "new innovative institutions," refers to institutions that are "startups" (~ five years old) and designed as new approaches to higher education. The design question is: "If we could start from the beginning without any constraints, how would we create a new form of higher education?" The institutions in our study are all face-to-face, teaching and research institutions.

Why rethink the organizational forms of higher education? The primary reason is that there are many external forces of change, which are challenging the

viability of current forms of higher education (Duderstadt, 2003; Rhodes, 2004). Some of the specific challenges include: increasing financial pressures for both public and private institutions (Rhodes, 2004), greater diversity in student backgrounds and expectations for college (Zemsky and Duderstadt, 2004), declining student effort and self-awareness (Kuh, 1999), the information technology revolution is changing the basic structure and process of universities (Goodman, 2001), increasing pressures for accountability in institutional performance from public and private funders, and so on.

Within the context of professional management schools in the higher education sector, there has been particular criticism of the educational value of management schools (Goshal, 2005; Pfeffer and Fong, 2002). Others

(cf. Chen, Donahue and Klimoski, 2004; Early and Peterson, 2002) have proposed redirecting the focus of management education to important issues such as globalization, disruptive technologies, and ethics.

Given these challenges and criticisms and the inertia for change within institutions of higher education, examining startup institutions of higher education that were relatively unconstrained seems like a positive learning opportunity. If we can identify unique features of these new institutions, there may be some lessons that would inform existing organizations of higher education.

The paper is organized as follows: (1) we introduce the concept of the organizational learning contract as a way to contrast innovative and traditional institutions, (2) we describe two institutions (one innovative, one traditional) and provide information on how we collected data from these institutions, (3) we present some data highlighting the features of these institutions, and (4) we discuss some of the implications for higher education.

Organizational Learning Contract

An organizational learning contract is a shared agreement among the major parties in a college or university about their roles and responsibilities regarding learning (Goodman and Beenen, 2008). The major parties include the principal agents of the institution (e.g., faculty, staff, administration) and the students. The contract is organizational because it is initiated by the institution and is between the institution and its students. The contract itself stipulates what, where, when, and how students will learn. Earlier, the concept of a "learning contract" had been used to signify an agreement between an individual faculty and an individual student. It permitted students to individualize their learning opportunities. The organizational learning contract is at the institutional level and covers all students in the same way.

The organizational learning contract has three major dimensions – learning outcomes, learning environments, and system components (see Figure 1). Learning outcomes refer to the knowledge or skills

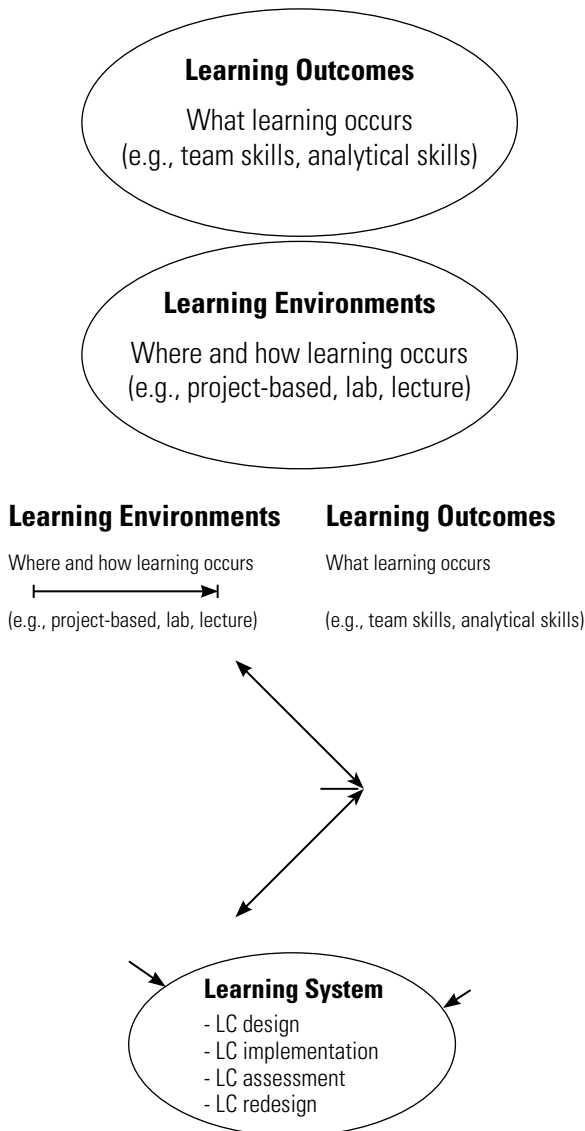
that students are to acquire. In a management school context, for example, they might include quantitative skills, leadership skills, and group skills. Each institution may select different sets of outcomes. The major characteristics of learning outcomes are: (1) they may be either explicitly or implicitly stated, (2) they can be acquired in classroom and non-classroom settings, (3) they are multidimensional in nature, and (4) they require practice and feedback in order to be achieved. In the new innovative institutions, they are explicitly stated, practiced in a variety of classroom and non-classroom settings, and there are feedback systems to assess the acquisition process.

Learning environments refer to how learning takes place, the specific methods to create learning. The lecture method has persisted for many years. The case method has been a dominant method in many management schools. Project-based learning is emerging as a new tool for learning, particularly in professional schools. Other approaches to learning include mentoring, peer-based learning, the studio, working in student clubs, etc. The major difference between innovative and traditional organizations is the mix of and use of the different learning environments. The traditional institution will exhibit a greater percentage of usage of lecture and discussion methods, while the new institution will rely more on active, formal learning, such as the use of project-based learning. Our argument is not that one type of institution will use one environment and not another. The argument is that the relative use of learning environments will vary between new and traditional institutions. There is some evidence in the literature that more active forms of learning environments facilitate learning.

The third element in a learning contract is the system dimension. To function effectively, a learning contract requires some kind of management system. That is, there needs to be a way to design the contract, implement it, assess its viability, and redesign it. To illustrate, students, faculty, and staff need to learn about the learning outcomes. In one innovative institution, the outcomes appear in the recruiting materials and process and are emphasized when students visit the institution. They are reiterated during

acceptance and later orientations. The institution initiates these early socialization experiences to define the roles and responsibilities of all the parties to the learning contract. The outcomes are explicit in each course. There are a number of non-course learning experiences built around the learning outcomes. In addition, there are multiple assessments of learning outcomes and a committee designed to monitor the outcomes and suggest curricula changes. All of these

**Figure 1 :
Dimensions of the Learning Contract (LC)**



examples represent system components designed to make learning outcomes explicit and shared in the college community.

Contrasting Learning Contracts in New and Traditional Institutions. To examine some of the differences between the new innovative and traditional institutions, let's start with some of the commonalities. We will focus on two institutions as illustrations – College A and College C. Both are training undergraduates to be technical professionals for the same type of jobs. Both focus on face-to-face vs. distributive education. Both value research and education. Each institution has access to other colleges to supplement their educational experience. The quality of students is roughly similar. We asked where the students had applied to college and many had applied to both institutions. This is a possible control on input quality.

While these institutions have similarities on inputs (student quality) and outputs (placement in a professional technical job), there are important differences. The new school is around five years old, while the traditional school is a little more than 100 years old. The new institution was set up in order to create new forms of education. The traditional organization is highly ranked and prides itself on doing excellent undergraduate education in this professional field. As a startup, the new organization is still growing in terms of students, while the traditional school has been at an equilibrium for some time.

We collected data from these institutions primarily using a 1:1 semi-structured interview. Data were collected from freshmen and juniors in two waves, one year apart. Also, in Wave 2, we administered a survey after the interview. We used the semi-structured interview because of the complexity inherent in the learning contract components. On average, we interviewed 56 students in College A and 54 students in College C. Approximately 89% and 80% responded in both interviews for each college. All interview respondents in Wave 2 filled out the survey.

Results

Table 1 focuses on student recall of learning outcomes. After some setup questions, we asked students to

identify the learning outcomes (i.e., the knowledge, skills, and abilities) students were to acquire. More students in the traditional institution were unable to identify any of the outcomes. None of the students were able to identify five or more out of the eight outcomes. On the other hand, 44% of the respondents from the innovative school were able to identify at least five or more outcomes. The table clearly shows that students in the new institution knew more learning outcomes.

Table 1 : Student Recall of Learning Outcomes

Number of Learning Outcomes Reported	College A (Start-up School) % Students Recalling Outcomes (N = 56)	College C (Traditional School) % Students Recalling Outcomes (N = 54)
0	19.6%	25.9%
1	5.4%	16.7%
2	8.9%	31.5%
3	10.7%	18.5%
4	10.7%	7.4%
5	19.6%	
6	14.3%	
7	7.1%	
8	3.6%	
9		---

Note: College A has 9 espoused learning outcomes; College C has 8 espoused learning outcomes. Percent of students recalling outcomes based on unaided recall of number of learning outcomes students believed their institution expected them to achieve.

Why are these findings important? Understanding of skills one is to acquire focuses one's attention on the learning process. If I need to learn group skills, I will more likely find activities that let me practice these skills and be open to feedback, which will help me learn these skills.

Knowing the expected learning outcomes creates a meta focus for the students and faculty. Instead of focusing primarily on a course and completing that

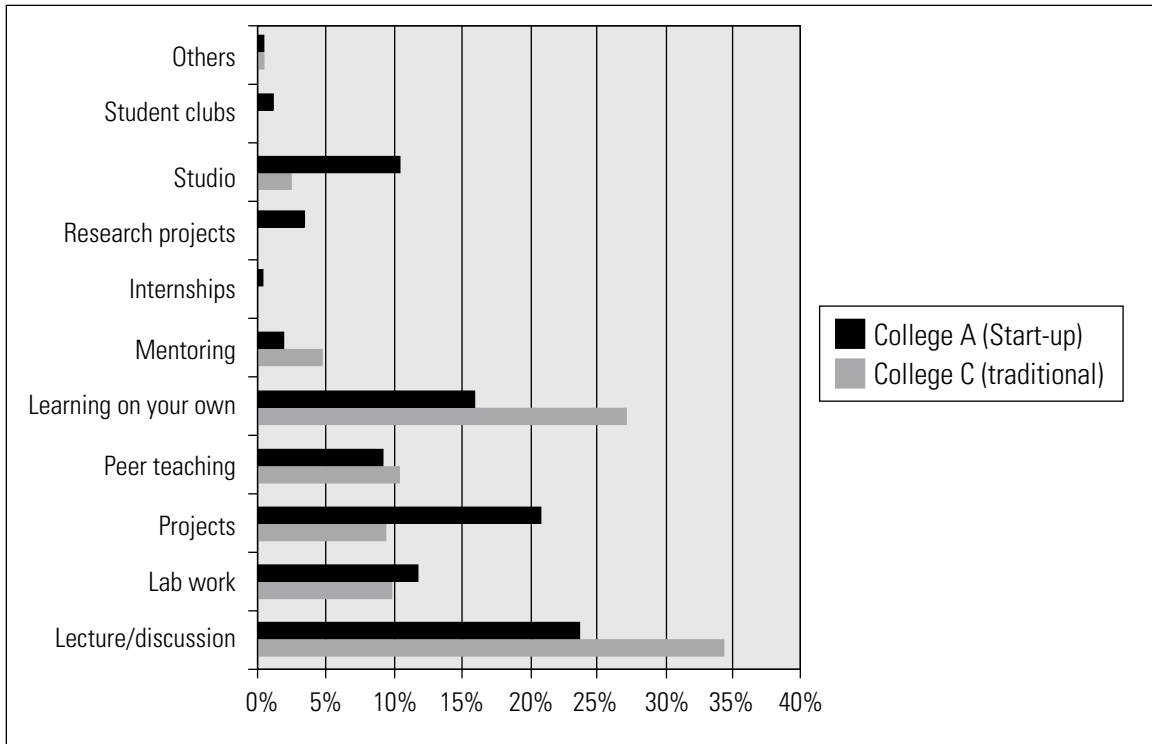
course successfully, the learning outcomes focus on skill acquisition across courses.

Table 2 captures the percentage of learning time spent in different learning environments. The lecture/discussion method dominates in the traditional institution. Also, students learn on their own in College C. There is a strong emphasis in the innovative school to work and do homework with others. Project-based learning is more predominant in College A, as is the studio. The studio (Wilson, 2001) is a newer form of educational environment built around a simultaneous use of mini lectures, discussion, and labs, all occurring within the same classroom.

While both institutions use many of the same environments, the innovative institution focuses more on active-based learning and working with others. There are other studies in the literature (cf. Carini, Kuh & Klein, 2006, Kuh, 1995, Zhao & Kuh, 2004) that find more active based learning, more tied to effective changes in learning.

We also looked at how students mapped the relationship between learning environments and learning outcomes. The basic question was: Given a learning outcome (e.g., lecture/discussion), which learning outcome would this environment most impact? They would draw a line from lecture/discussion to the learning outcomes. We did not expect 1:1 mapping. In the analysis of this data there are some commonalities across both colleges. Using groups as a learning environment has its greatest impact on acquisition of group and communication skills. Learning on your own has the greatest impact on learning to learn. These similarities are not surprising because we are asking students to map learning environments to learning outcomes. This is a different question from whether the two schools differ in the amount of time spent on group or project-based activities. Another question is looking at the learning outcomes and asking how many learning environments affect changes in these skills. For College A, team skills and learning to learn are affected by 50% of the learning environments. For College C, which has different outcomes, problem solving is affected by the largest number of learning environments (~50%).

Table 2 :Percent of Student Learning Time Spent in Different Learning Environments



Note: The chart displays average portion of time spent in each learning environment for each sample; totals therefore do not equal 100% for each college; Data based on student self-reported estimates of time spent in each learning environment; N = 56 (College A); N = 54 (College C).

Table 3 : Impacts of Learning Contracts

IMPACTS OF LEARNING CONTRACTS - 1		
	College A	College C
Overall Effectiveness of Teaching	95	81
Challenging High Quality Environments	90	84
IMPACTS OF LEARNING CONTRACTS - 2		
	College A	College C
I have a strong sense of belonging	95	72
The organization has a great deal of personal meaning to me	96	60

We have explored some differences between the new and traditional institutions on knowledge of learning outcomes, learning environments, and the relationship between learning environments and learning outcomes. We also have data on some global effectiveness measures.

Table 3 shows students views on the quality of teaching and the extent to which they are in a challenging, high quality environment. For both questions, students in College A report higher scores than the traditional institution. We also asked some questions about the overall importance to them of their college experiences. For both questions in Table 3, students in College A have more dominant scores. Since learning and personal development are core issues in the classroom and non-classroom environment, these last two global questions are reflective of the learning experience at both institutions.

Discussion

Our goal was to explore the nature of the new innovative institutions. These initiatives represented thinking about higher education from a clean slate. The designers were not interested in incremental change. They wanted to think about new ways to design higher education. We used the learning contract to organize how to think about the differences between the new and traditional institutions. The basic findings were that in the contract, outcomes were very explicit and because of a variety of socialization mechanisms, students knew the learning outcomes in College A. Secondly, there were differences in the learning environments. The lecture was used in both institutions, but more so in the traditional institution. Project-based learning was more extensive in College A. When mapping environments to outcomes, there were differences between the institutions.

How do all these differences add up? In terms of overall effectiveness of the teaching/learning environment, College A had high positive endorsements. In terms of the global assessment of the organization, College A again had high positive endorsements.

As in any study, there are limitations. We only reported results for the two organizations. The problem is that there are not a lot of innovative startups. There are new universities, but for the most part, they are modeling traditional universities with some incremental improvements. Second, we are operating with relatively small samples. The challenge is that data collection in this domain really requires interviews, and that is a very labor-intensive activity. We chose to do a more intensive study in two waves and operate with a smaller sample. A third issue is that we haven't captured all agents of the learning experience. For example, in College A, there is a persistent theme that faculty are around all hours of the day to help the students. That is an important predictor. Our view, however, is that while we did not discuss that issue, it is part of the broader learning contract at College A. Another issue is whether the character of College A will remain the same or revert to more traditional forms over time. We don't have the answer to that question. Time needs to pass before one can make that assessment.

In conclusion, we have provided some data about the differences between a new and traditional institution. In addition, we have some evaluation data on evaluations of teaching quality and sense of attachment to the institution. While both institutions have positive scores, College A clearly is dominant.

What are some implications for existing organizations that do not have the luxury of starting with a clean slate? The learning contract could be used as a diagnostic tool. What are the espoused learning outcomes and what are those in action or reality. Can one evaluate existing learning environments and perhaps experiment with some new forms. It might be useful to review the existing system components. What is missing and what needs to get reinforced? There needs to be some self-designing system in place to strengthen the basic contract.

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