

THE EDUCATIONAL PREFERENCES OF THE ENTREPRENEURIAL- MINDED UNDERGRADUATE BUSINESS STUDENT

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ABSTRACT

Senior undergraduate business students were queried as to how helpful twenty different pedagogical strategies were in facilitating their learning. Entrepreneurially-minded students were found to have pedagogical-strategy preferences that differ from the rest of the undergraduate business student body for eleven out of the twenty strategies employed in this research. Overall, entrepreneurially-minded students found the more non-traditional educational strategies more helpful in learning than did the other business students.

INTRODUCTION

The desire for curricular change in business education reflects the charge that today's business curriculum is too focused on delivering knowledge-based content. Despite this long-standing criticism about the business curriculum and its pedagogy, little evidence exists that curricula and pedagogy have changed over time [2]. The consequences of this misplaced focus on the acquisition of knowledge are graduates who are technically competent, but who lack the judgment and other skills so necessary for long-term success in the business professions. Nowhere is this more critically important than in entrepreneurial education. An entrepreneur's ability to innovate, to generate new employment opportunities and to respond to society's needs manifests the importance of entrepreneurial education to society. While great strides have been made in teaching entrepreneurship, the fact remains that most students who eventually pursue an entrepreneurial career will not major in entrepreneurship, nor will they take entrepreneurship courses. As a result, they will not receive the benefits of an entrepreneurially-oriented education because such instruction has been aimed primarily at the entrepreneurship major. Therefore, in order to meet the broad goals of entrepreneur education, more effective classroom instructional strategies need to be undertaken. More effective in the sense, that these strategies are better at nurturing and developing the essential entrepreneurial skills needed by tomorrow's entrepreneurs in addition to the necessary intellectual skills.

Fundamentally, teaching and learning are basically different in their orientations. With the former the focus is on input and the teacher, while with the latter the focus is on outcomes and the students [1]. Consequently, a learning approach places greater attention on the students and how they respond to the educational process. The purpose of this paper is to focus on the other side of the curriculum/teaching equation by surveying undergraduate business students on how they perceive the ability of various pedagogical strategies in facilitating their learning. Of particular interest are the students who are entrepreneurially minded. An entrepreneurially-minded individual is someone who is capable of becoming an entrepreneur. In order to operationalize the concept of the entrepreneurially-minded individual, students were asked to express their entrepreneurial intentions by indicating their agreement to the statement, "I plan to become an entrepreneur," by means of a Likert scale ranging from strongly

agree to strongly disagree. While agreement with this statement does not necessarily identify or predict a future entrepreneur, it does indicate receptiveness to the concept and experience of entrepreneurship. Therefore, the students' responses are used as a proxy for entrepreneurial-mindedness, with greater agreement showing one as being more entrepreneurially-minded. Based on their responses, 148 students were acknowledged as being entrepreneurially-minded, another 175 students were considered to be neutral with respect to this issue, and 87 students were categorized as being non-entrepreneurially minded.

A substantial body of literature exists that indicates that entrepreneurs share common personality traits that partially account for entrepreneurial behavior. Therefore, to further validate the entrepreneurial difference among these students, they were compared on several psychological characteristics that have been associated with entrepreneurs. A statistically significant difference was found among the differing groups at the 0.000 level of significance using Pillai's trace test statistic (0.117; approximate $F = 2.73$) for the MANOVA test. This test was followed by nine individual univariate ANOVA tests for each of the individual psychological measures to determine which psychological measures are causing this significant difference. Subsequently, for each significant ANOVA test, a Scheffe post-hoc analysis test is used to determine the specific group differences for each of these psychological measures. The follow-on ANOVA tests and Scheffe post-hoc analysis tests reported in Table 1 indicate that the group of students labeled as being entrepreneurially-minded students do have a higher internal locus of control, a greater need for achievement, and a greater tolerance for novelty than the students identified as being non-entrepreneurially minded. In addition, the group of entrepreneurially-minded students exhibits a higher need for dominance than both the neutral or non-entrepreneurially-minded students, with the neutral students having a higher need for dominance than the non-entrepreneurially-minded students. Thus, the entrepreneurially-minded students exhibit the personality traits of entrepreneurs and, accordingly, represent students who are entrepreneurially-minded individuals.

TABLE 1
PSYCHOLOGICAL MEASURES WITH DIFFERENCES AMONG GROUPS

<i>Psychological Measure</i>	<i>F-Value</i>	<i>Signif.</i>	<i>Scheffe Post-Hoc Analysis</i>
Rotter's I/E Locus of Control	2.48	0.085	E-minded > nonE-minded
n-Achievement	8.54	0.000	E-minded > nonE-minded
n-Affiliation	0.22	0.978	
n-Autonomy	0.36	0.700	
n-Dominance	16.59	0.000	E-minded > Neutral > nonE-minded
Budner's AT Scale	1.45	0.235	
Budner's Complexity Dimension	1.50	0.225	
Budner's Insolubility Dimension	1.90	0.151	
Budner's Novelty Dimension	4.41	0.013	E-minded > nonE-minded

METHOD

Employing the delineation described by Weston and Cranton [3], pedagogical strategies used in this paper will be grouped into four general categories: instructor-centered strategies (IC), individual-learning strategies (IL), interactive strategies (IS), and experiential-learning strategies (EL). The first two categories represent the more traditional teaching strategies while the two latter two categories represent non-traditional teaching strategies. The purpose of this study is to determine whether differences exist between entrepreneurially-minded business students and other undergraduate business

students with respect to the perceived success of twenty differing pedagogical strategies in facilitating student learning. The subjects employed in this research were senior undergraduate business students from two AACSB accredited institutions, one private and the other a regional state university located in the Northeast United States. The students were asked to indicate how each of twenty different pedagogical strategies facilitated their learning by selecting one of the following responses: 5 = most helpful, 4 = very helpful, 3 = moderately helpful, 2 = slightly helpful and 1 = unhelpful. Given the multiple pedagogical strategies rated by each student, determination of whether differing degrees of entrepreneurially mindedness has an impact on the students' ratings of pedagogical strategies is determined by a one-way multivariate analysis of variance test (MANOVA). A statistically significant difference is found among the differing groups at the 0.003 level of significance using Pillai's trace test statistic (0.192; approximate $F = 1.77$). The MANOVA test is followed by twenty individual univariate analysis of variance tests (ANOVA) for each of the individual pedagogical strategies to determine which strategies are causing this significant difference. Eleven of the twenty individual pedagogical techniques show statistically significant differences at the 0.05 level among the three groups. These pedagogical strategies are listed in Table 2. Finally, each of these significant ANOVA tests is followed with a Scheffe post-hoc analysis test to determine the specific group differences within each of these pedagogical strategies. The results of these post-hoc tests are presented in Table 2.

TABLE 2			
PEDAGOGICAL STRATEGIES WITH DIFFERENCES AMONG GROUPS			
<i>Pedagogical Strategy</i>	<i>F-Value</i>	<i>Signif.</i>	<i>Scheffe Post-Hoc Analysis (0.05 Level of Significance)</i>
Lectures in General (IC) ¹	4.77	0.009	E-minded > Neutral & nonE-minded
Programmed Instruction (IL)	3.07	0.047	E-minded > nonE-minded
Group Projects (IS)	3.32	0.037	E-minded > nonE-minded
Internships (EL)	8.65	0.000	E-minded & Neutral > nonE-minded
Role Play (EL)	13.18	0.000	E-minded > Neutral > nonE-minded
Management Simulation (EL)	8.45	0.000	E-minded > nonE-minded
Experiential Exercises (EL)	3.91	0.021	E-minded > nonE-minded
Small Group Discussion (IS)	10.98	0.000	E-minded & Neutral > nonE-minded
Large Class Discussion (IS)	9.98	0.000	E-minded & Neutral > nonE-minded
Argumentative Discussion (IS)	8.15	0.000	E-minded > nonE-minded
Seminars (IS)	3.93	0.020	E-minded > Neutral

¹ IC = Instructor-Centered Strategy; IL = Individual-Learning Strategy; IS = Interactive Strategy; and EL = Experiential-Learning Strategy.

RESULTS AND DISCUSSION

Statistically, the helpfulness in learning among the three groups is more in sync for the more traditional pedagogical strategies. Two out of three instructor-centered strategies and five out of six individual-learning strategies showed no significant differences among the groups. These traditional pedagogical strategies are applied lectures, theory lectures, homework, exams-in-general, problem exams, required readings, and term papers. Just the opposite experience occurred for the more non-traditional strategies. Only one of the five experiential strategies and one of the six interactive strategies shows no significant differences among the groups. These non-traditional pedagogical strategies are cooperative learning and case analysis.

Turning to the differences among the business groups, we found that 11 of the 20 pedagogical strategies exhibit statistically significant differences. Two of the 9 more traditional educational strategies exhibit differences while 9 of the 11 more non-traditional strategies exhibit differences. These pedagogical strategies are listed in Table 2 along with the cause for the significant one-way ANOVA tests. The

direction of these differences support the hypothesis that the entrepreneurially-minded students will benefit more from the non-traditional learning strategies than the other business students.

Due to the breadth of the required business curriculum, undergraduate business students take many introductory courses where the classes are larger, the focus of instruction is on the lower levels (knowledge and comprehension) of the cognitive domain, and the more traditional instructor-centered and individual-learning strategies are particularly efficient and effective. As such undergraduate business students are quite familiar and understand clearly what is expected of them when more traditional strategies are employed in the classroom. In addition faculty, through extensive use, have honed their skills and are very proficient when employing these strategies. Therefore, it is not surprising that only 2 of the 9 more traditional strategies differ on their helpfulness in learning among the business groups. On the other hand, 9 of the 11 more non-traditional interactive and experiential-learning strategies exhibit significant differences in their helpfulness in learning among the business groups. In every case the entrepreneurially-minded students rating of the significant educational strategy as being more helpful than did the non-entrepreneurially-minded students.

The conclusion drawn from this research is that entrepreneurially-minded students appear to prefer, or find more helpful in learning, the non-traditional teaching strategies than other business students. The higher need for achievement and other personality traits and interpersonal behaviors typically found among entrepreneurial students as well as the active nature of these educational strategies may be impacting the effectiveness of these pedagogical strategies in facilitating their learning. Results of this research show that 11 of 20 differing pedagogical strategies are more successful with the entrepreneurially-minded students than others in facilitating student learning.

An additional outcome of this research is that the differences in helpfulness in learning are greater among the more non-traditional pedagogical strategies than the traditional strategies. This is important because the non-traditional strategies are superior not only in reaching the more complex educational outcomes of application, analysis, synthesis and evaluation [3] but also in developing the necessary professional skills essential for today's students: oral communication skills, interpersonal skills, leadership skills, critical-thinking abilities, teamwork, decision-making abilities, and written communication skills. For those reasons, the consequences of having a misplaced focus on the acquisition of knowledge and the emphasis on the more traditional instructional strategies within our business schools are having a greater impact on entrepreneurial education and, more specifically, the entrepreneurially-minded students. Accordingly, in order to better meet the broad goals of entrepreneur education, more non-traditional instructional strategies need to be undertaken as these strategies are more effective in nurturing and developing the essential entrepreneurial skills needed by tomorrow's entrepreneurs.

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