

SYSTEMIC CHALLENGES TO IMPLEMENTING AN ACTIVE LEARNING STRATEGY IN AN INTRODUCTORY MARKETING CLASS

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ABSTRACT

Employers have increasingly questioned the gap between theory and practice in marketing education as it has a large effect on graduating students in the employment market. This problem is especially acute in Egypt, where the education system has not emphasized the development of critical thinking ability among students. This study investigates the effectiveness of an active learning approach in teaching introductory marketing to undergraduates. The course was taught at a major public university in Egypt, with an extremely large class size (over 1000). Results showed some encouraging signs and also highlighted some of the systemic challenges to implementation of active learning strategies. We discuss the problems encountered in the classroom and implications for university education in Egypt.

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INTRODUCTION

Critical thinking skills are essential in a professional workplace, and employers typically complain that graduating students lack these skills. This perceived lack of skills poses a challenge to professors in all the business disciplines, including marketing. Küster & Vila (2006) argue that the increasing number of students attracted to the discipline of marketing puts pressure on the marketing academics in delivering relevant learning effectively through improved methods. The field of marketing has seen rapid changes in recent times, including greater international trade, rapidly changing technology, and shorter product life-cycles and an avid customer that is always seeking something new and different (Hill, McGinnis & Cromartie, 2007; Seligman, 2012). Lack of preparedness for critical thinking is an even bigger issue outside the western world. In Egypt, the gap between what the students learn and what the market demands continues to widen (El Sabai, 2006).

Academics have responded to the need for teaching students to think critically through various active learning strategies. These strategies include debates (Roy & Macchiette, 2005), experiential learning (Celly, 2007), service learning (Mottner, 2010), the use of technology (Karakaya, Ainscough, & Chopoorian, 2001), structured cases (Klebba & Hamilton, 2007), and guided problem-based learning (Nargundkar, Samaddar & Mukhopadhyay, 2014), as well as other pedagogical approaches. Most research studies that involve some type of active learning experience in the classroom are carried out and published in the United States, with class sizes generally under 100 students. Even in studies comparing small and large class sizes, the large class size is usually under 200 students (Hill, 1998; Karakaya et al., 2001). In this study, we used the guided problem-based learning (Guided PBL) approach with a reversed text (Nargundkar et al., 2014) to teach an introductory marketing class in Egypt, and compared student

performance and perceptions in that section with those of similar students in a section taught via traditional lectures. The purpose was to test whether such an active learning strategy could be effectively implemented in vastly larger face-to-face class sizes than had been tried before. Further, the cultural expectations of students in Egypt posed an additional challenge, unused as they were to being asked to participate actively in a classroom. We measured student performance overall, as well as on critical thinking questions, and surveyed them to gauge their perceptions to evaluate the success of this effort. The rest of the paper is organized as follows. We review the literature regarding critical thinking and the pedagogical approaches in achieving it, including issues of class size, as well as a focus on education in Egypt. We then outline the methodology for data collection and analysis, report the results, and discuss the implications.

LITERATURE REVIEW

Need for Critical Thinking in Marketing

Real life experiences in the business world can be messy, with problems that go across subject matter domains, require people to work in teams that do not always get along, and the ability to analyze, communicate, negotiate, and make decisions with incomplete information. Graduates from universities often find themselves unable to apply what they have learned in the classroom because they have not learned to think beyond highly structured problem solving. Paul (2004) cites various studies to show that while instructors aspire to improve students' thinking skills, little thinking actually happens in most classrooms. The dynamic nature of dealing with customers makes the ability to adapt and think critically especially important in marketing.

Researchers have echoed the idea that there is a gap internationally between the skills students get in a classroom and the skills they need in the workplace. Bruce & Schoenfeld (2006) discuss what they call the thinking-doing divide, identifying the disconnect between marketing education and practice. A study of accounting graduates in China (He, Craig & Wen, 2013), as well as a study of marketing education and marketing practice in the UK (Stringfellow, Ennis, Brennan & Harper, 2006) suggest the existence of a similar gap. Students tended to agree with employers in that they believed they should be learning the skills needed for the job. Faculty members often argue that learning should be broad, and not necessarily applicable to a job immediately. However, these broad skills that faculty members espouse are not necessarily learned by students.

Cunningham (2008) argues that strategic thinkers and successful entrepreneurs have the ability to meta-think, while educational processes compartmentalize knowledge and provide little opportunity to think about thinking. Others decry the trend towards overly specialized skill building in education instead of overall professional development (Maines & Naughton, 2010). The need for critical thinking is universal, not restricted merely to business students. Researchers have documented the need for critical thinking in various fields including business, economics, basic sciences, mathematics, psychology and English (Roy & Macchiette, 2005). The AACSB (Association to Advance Collegiate Schools Of Business) recognizes the importance of critical thinking in education and expects colleges and universities to assess their programs and courses to improve higher level learning among students (Reinstein & Bayou, 1997). Rapid changes in the world and the field of marketing can make specific concepts and skills obsolete. What is, therefore, important is the continuous development of thinking ability.

Defining Critical Thinking

Various definitions of critical thinking are found in the literature. Critical thinking can be traced to over 2500 years ago when Socrates drafted his first chapter on critical thinking (Ayad, 2010). Reinstein & Bayou (1997) refer to the American Heritage Dictionary definition, which states that critical thinking is

characterized by careful and exact evaluation and judgment. They suggest that the difficulty in discussing critical thinking results from two characteristics of critical thinking itself. First, critical thinking results less from practicing skills than from adopting persistence, open-mindedness, thoroughness, and flexibility. Second, thinking is not a single process, but rather a family of processes that support each other. Lai (2011), in a survey of the relevant literature, summarized the definitions of critical thinking as rooted in philosophy or psychology. The philosophical definitions are descriptions of the ideal of thinking, such as disciplined, self-directed thinking (Paul, 1992). Psychologists define critical thinking in terms of skills and behaviors that a critical thinker engages in, such as seeing both sides of an issue, being open to new evidence that disconfirms your ideas, evaluating assumptions, and so on. From a pedagogical standpoint, Bloom's taxonomy is a convenient way to operationalize the construct based on the kinds of activities or behaviors consistent with critical thinking. The original levels of learning proposed by Bloom et al. (1956), were ordered in a hierarchy from less complex to more complex (Huitt, 2011) - *Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation*. In a recent revision of Bloom's taxonomy, Krathwohl (2002) proposes the following six levels instead - *Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating*.

While the original Bloom's taxonomy had a single dimension with six levels, the revised version is two-dimensional, with the second dimension explicitly discussing the types of knowledge as factual, conceptual, procedural, and metacognitive (Airasian & Miranda, 2002). The original version discussed the first three, while the revision contained the added dimension of metacognitive knowledge. Metacognitive Knowledge involves knowledge about cognition and awareness of one's own cognition. This is an important aspect of critical thinking since thinking can only be improved when one is conscious of one's modes of thinking and accepts that they may be susceptible to flaws (Paul, 2004). Pintrich(2002) discussed the metacognitive knowledge category and its implications for learning and teaching. Metacognition includes knowledge of general strategies that might be used for different tasks, the conditions under which these strategies are used, to what extent these strategies are effective and the knowledge of self. The difference then, between learning facts or concepts or procedures and thinking critically, is the ability to ask questions about what is being learned, why it needs to be learned and how it is being learned. Also, one must question whether the learning is, in fact, true, and what its implications are to other aspects of life, including the thinking process itself.

Teaching Methods for Critical Thinking

The key difficulty in incorporating critical thinking into one's teaching, according to Paul (2004) is threefold - most faculty members lack a substantive concept of what critical thinking is, they do not realize this lack within themselves, and straight lecture and short-term study habits like mostly memorization form the core of instruction and learning. Content and thinking about the content, he argues, should not be separated, but often are. Students learn mathematics or history or business, but not how to think about mathematics or history or business. Tests that emphasize recall rather than thought further reinforce this weakness. Teaching methods must, therefore, to successfully get students to think critically, weave thinking about the subject into the instruction, rather than focus on regurgitating facts that will be forgotten days after the semester is done, and will more than likely be useless in the long run even if remembered. In recent times, several active learning strategies have been used in various fields to engage students in thinking. Balan & Metcalf (2012) refer to several methods in their study, including team-based learning, student presentations, and the use of guest speakers. Patel (2003) examined the *Holistic Approach to Learning and Teaching Interaction (HALTI)* as a learning method for developing critical learners. Although this approach's roots are in the computing field, Patel (2003) argued that it can be generalized to all disciplines in higher education to foster critical thinking, confidence & independence. Raths (2002) argues for alignment of objectives, activities, and assessments to improve instruction. Küster & Vila (2006) compared marketing education methods in Europe and North America. They found three teaching and learning methods most commonly used in both environments: practical

exercises, case studies, and lectures. Geissler, Edison & Wayland (2012) used the six thinking hats approach proposed by DeBono (1999) in marketing classes to facilitate discussion. Experiential learning and case studies have been shown to improve critical thinking ability among marketing students (Celly, 2007; Klebba & Hamilton, 2007). Hill & McGinnis (2007) argue that in general, there needs to be a reversal in teaching methods where the questions take center stage, rather than “correct” answers.

Nargundkar et al (2014) summarize teaching methods for critical thinking into three schools of thought. The first (direct method) assumes that critical thinking stands alone and should be taught separately from any specific subject (Van Gelder, 2005). The second approach (indirect method) argues that it should be taught through immersion in thinking about a particular subject (Case, 2005), and the third approach (mixed method) combines the two approaches, with some explicit instruction about thinking along with thinking about a subject (Paul, 1992).

Challenge of Large Classes

While active learning strategies have been shown to be effective in improving critical thinking ability, no study has attempted this in classes as large as the ones attempted in this study. Class sizes vary tremendously depending on the class and the university, ranging from fewer than ten students in a class to several hundred. The literature shows mixed results regarding the effect of class size on learning. Jensen & Segovia (2003) suggest that it is possible to mitigate the effect of class size through a variety of teaching techniques. Several studies define large classes as those containing 100 or more students. However, the definition of large has ranged from over 50 students in some studies to over 300 students in others. Karakaya et al. (2001) found that technology helped mitigate the effects in a large (109 students) classroom. Hill (1998) found that large class size did not affect the perception of instructor effectiveness, but reduced student attendance. Still, the larger class outperformed the smaller one. Morris & Scott (2014) found no relationship between class size and performance. In general, large classes do pose a greater challenge to the instructor in achieving student-teacher interaction.

Education in Egypt

Factors unique to the education system in a given country can also have an impact on one’s ability to implement active learning strategies. In his report on education reform in Egypt, sponsored by USAID, Robert Kozma (2004) suggests that since education at all levels in Egypt is centralized, controlled by the ministry of education, partial solutions do not work very well. For instance, simply buying computers for schools is of no use with demoralized, underpaid, poorly trained teachers. Large class sizes, rote learning, and assessments that emphasize rote learning are the norm, from grade school all the way to university education. The gap between what students learn and what employers want is much worse than in western countries, with employers in Egypt saying that about 70% of the graduates do not have the basic skills of creativity, problem-solving, and teamwork they considered essential in the 21st century (El Nashar, 2012). Students were also quite aware of their lack of preparation for a job, recognizing that their education was more a symbol of status than real ability. To Egypt’s credit, there have been efforts underway in conjunction with USAID to overhaul education, to move from an instructor-centered to a learner-centered pedagogy (Ginsburg & Megahed, 2008).

Research Objective

In this research, we study the effect of implementing a learner-centered method of teaching in a large (more than 1000 students) class in Egypt on introductory marketing, in a section taught in Arabic. For introductory courses, where students have little prior knowledge of the subject, Nargundkar et al (2014) proposed an approach called guided problem-based learning (Guided PBL), which seemed suitable for our study. Their approach used a custom textbook created for this purpose, dubbed the *reversed* textbook,

which presented problems or conceptual questions first with empty spaces for students to attempt to solve or answer. The concepts and theories needed to understand and solve the problems come through guided discussion in class amongst students and between students and the instructor. Their study results indicated that this approach motivated learning and significantly improved student performance overall as well as on critical thinking tasks. A similar textbook was created for the marketing course for this study, and a similar approach used in teaching it. The objective of the study is to see if such an active learning approach is more effective in helping students think about marketing and in applying the concepts than traditional lectures. Our goal is to help higher education institutions in developing countries to improve their teaching methods and decrease the gap between theory and practice. The challenge is greater in Egypt, in that class sizes in Egypt tend to be far greater than reported in any research - around 1500 students to a section. Also, students are acculturated to expecting a straight lecture and memorizing. To get them to participate in active learning will require a shift in thinking about education.

METHODOLOGY

The Classroom Approach

The teaching method used for the treatment group, as mentioned before, was the Guided Problem Based Learning approach with a reversed book as detailed in Nargundkar et al. (2014). A similar book was created for this course and implemented in teaching, to encourage students to think about marketing issues and problems before teaching them any theory. They were asked to work on the exercises from the book in small groups, and then the instructor would lead a broader discussion to bring out the theory and implications. For example, instead of a lecture on pricing strategies followed by questions about it, the process is reversed. Students are asked to analyze the pricing strategies of some competing products – restaurants they are familiar with, for instance. Students do this without knowing the marketing terminology. A discussion on why consumers are willing to pay different prices for similar products permits the instructor to then introduce the terminology like skim pricing, competitive pricing, product differentiation, and so on. Guidelines for instructors to use an approach similar to that used in this study are shown in Appendix A.

Data and Analysis

Since this is an exploratory study of whether active learning could work effectively in a different culture and with class sizes of over 1000 students, formal hypotheses were not developed. While active learning literature would lead us to expect improvements in learning through the use of these methods, it was unclear how that would play out under these circumstances. This study uses a quasi-experimental approach commonly used in the social sciences (Gribbons & Herman, 1997; Steward, Martin, Burns & Bush, 2010). Two sections of an introductory marketing class taught by the same instructor (the lead author of this study) at a large university in Egypt were chosen for the study. One section served as a control group, where students were taught as they had been in the past, with a straight lecture approach. The other section was the treatment group, where the new pedagogical approach was used to teach the course. A concern in quasi-experiments is that the two groups may not be equal in some key metric to start with. In this case, as with many pedagogical intervention studies, student performance is a key outcome measure. Therefore, one must ensure that student ability among the two groups is not significantly different before the intervention. At this university, students are not assigned to sections based on ability. The section that students end up in is a nearly random process. Further, the class sizes are very large. The control group, in this case, had 1,376 students, while the treatment group had 1,525 students enrolled. The large sample size reduces the likelihood of any systematic differences between the groups before the intervention. The fact that both sections were taught by the same instructor controls for differences due to instructor characteristics. The timing of the two classes was different, of course, and could have a small effect on the results.

Table 1: Below Shows Some Statistics Regarding the Distribution of Students in the Two Sections

	Group A Treatment Group	Group B Control Group
Sample Size	1524	1375
Age	19	19
Gender Distribution	48.3% male	27.3% male
Credits Completed	1 year of college coursework, or the equivalent of about 30 credits in the US system	1 year of college coursework, or the equivalent of about 30 credits in the US system
Grade Distribution	Number of Students	Number of Students
Over 90%	4 (0.3%)	2 (0.1%)
80-89%	165 (10.8%)	172 (12.5%)
70-79%	487 (32.0%)	461 (33.5%)
60-69%	564 (37.0%)	494 (35.9%)
Under 60%	304 (19.9%)	246 (17.9%)

The table above shows some basic information about the students in the sample, in both the treatment group and the control group. In general, the table shows that both sections are quite similar in their composition. All the students are traditional age college students in their sophomore year. They take this marketing course in the first semester of their second year.

Two-sample t-tests were performed to compare the average score of the treatment group against the average score of the control group on the final exam. The comparisons were made on the overall scores as well as separately on the critical thinking questions only. The questions on the exam were designed based on Bloom’s taxonomy to represent rote level, comprehension level, and critical thinking questions. Another two-sample t-test was performed to compare the average attendance of the two groups over the 20 class meetings throughout the semester. The attendance numbers were compared as a percentage of class size since the class sizes for the two groups were different.

Survey of Students

In addition to comparing their exam scores, students in both groups were surveyed at the beginning of the semester to get some insight into their expectations regarding the level of learning they would achieve in the course. The survey was repeated at the end of the semester with a minor change in wording to gauge their perception of what they learned. The questions on the survey were essentially the six levels of learning from Krathwohl’s (2002) revision of Bloom’s taxonomy, shown in Table 2.

Table 2: Survey of Student Learning Expectations

Statements	SD	D	N	A	SA
After the end of this semester, do you expect that you will be able to: Remembering: recall or remember the information.	1	2	3	4	5
Understanding: explain ideas or concepts in your own words.	1	2	3	4	5
Applying: use the concepts learned in a new way.	1	2	3	4	5
Analyzing: analyze marketing related cases.	1	2	3	4	5
Evaluating: evaluate marketing issues to justify a stand or decision.	1	2	3	4	5
Creating: create something new that is marketing related.	1	2	3	4	5

The table shows the questions asked of the students, based on the six levels of learning. The purpose was to student perceptions of what they expected to learn at the beginning of the semester, and compare that with their perception of what they actually thought they learned at the end of the semester.

During the semester, the instructor communicated with students on Facebook and occasionally did informal surveys to get some feedback about the class. Responses on Facebook were limited to small

numbers of students, so it may not be statistically valid to generalize those to the entire class, but served to get some feedback and involvement from students.

RESULTS

Table 3 below shows the overall scores for the two sections. There was no significant in the means of the overall examination scores for the two groups.

Table 3: Overall Scores (Percentage)

	A (Treatment)	B (Control)
Mean	67.51	68.05
Stdev	9.82	10.07
Sample Size	1525.00	1376.00

The table shows the results of the final examination. Group A (Treatment) refers to the section taught using the active learning strategy, and Group B (Control) refers to the section taught with the traditional lecture method. The difference in means was not significant even at the 10% level.

Table 4 below shows the scores for the two groups on the critical thinking questions alone. While the difference was small (roughly 1.2 percentage points), the mean score for the treatment group was significantly greater than for the control group.

Table 4: Scores on CT Questions Only (Percentage)

	A (Treatment)	B (Control)	
Mean	60.41	59.20	***
Stdev	13.25	13.28	
Sample Size	1525	1376	

*This table shows the scores on the critical thinking questions on the final examination. The mean score for the treatment group was 60.41, and the mean for the control group was 59.20. *** indicates that this difference in means was significant at the 1% level.*

Table 5 below shows the attendance for each group over the 20 sessions in the semester. Overall attendance for the entire semester is shown at the top of the table. Attendance for the control group was in fact significantly higher than for the treatment group.

Table 5: Attendance for the Two Groups Over the Semester (Percent of Class Attending)

Lecture	Group A	Group B	Lecture	Group A	Group B
1	42.20	41.00	11	27.20	28.20
2	35.90	40.00	12	26.20	31.00
3	37.50		13	27.30	17.80
4	27.50	34.80	14	24.80	28.50
5	26.90		15	31.50	28.00
6	25.20	31.80	16	24.50	25.60
7	27.70	28.00	17	20.40	20.60
8	25.00	33.00	18	24.80	27.50
9	25.60	27.30	19	22.00	21.00
10	26.50	32.60	20	25.10	45.00
Mean	27.69%	30.09%***			
Stdev	5.28%	7.09%			

*The table above shows the attendance numbers for both Group A (Treatment) and Group B (Control) for each of the 20 lecture meetings throughout the semester. The overall means and standard deviations are shown at the top of the table. *** indicates that the attendance for the control group was significantly higher than the control group, at the 1% level.*

Table 6 below shows the student responses to the survey from the beginning of the semester, asking them about their perception of the various levels of learning they believed they would achieve, and at the end of the semester, asking them what they thought they achieved.

Table 6: Percent of Students That Agreed or Strongly Agreed with the Statement

Do you think that you will be able to:	Semester Start		Semester End	
	Group A	Group B	Group A	Group B
[Remembering] Recall or remember the information.	60.8%	48.8%	71.4%	41.6%
[Understanding] Explain ideas or concepts in your own words.	57.4%	63.4%	55.4%	56.5%
[Applying] Use the information in a new way.	65.9%	58.7%	63.2%	60.3%
[Analyzing] Analyze marketing related cases.	61.1%	62.8%	75.4%	60.8%
[Evaluating] Evaluate issues to justify a stand or decision.	66.3%	59.2%	68.1%	56.3%
[Creating] Create something new that is marketing related.	73.1%	70.4%	62.3%	57.4%
	n=358	n=303	n=119	n=209

This table shows the results for the treatment group (A) and the control group (B) on the survey of student perceptions before and after the semester. For example, 60.8% of the students in the treatment group believed that they would be able to remember the information learned in the course at the beginning. This number went up to 71.4% for the same group at the end of the semester. Most numbers for Group A went up, while for Group B they declined. This indicates that at least among the respondents, the active learning method was perceived as more useful in learning.

The results show that for both groups, roughly 60-70% of the students started the semester either agreeing or strongly agreeing with the statement that they would be able to think critically (apply, analyze, evaluate, create). At the end of the semester, the percentages in some of the categories moved up and down – notably, a big increase in the percent of the treatment group that said they were able to analyze marketing cases. However, this is tempered by the fact that the sample sizes were small relative to the class size. The samples sizes at the beginning of the semester were roughly 20% of the class size, and these further dropped by the end of the semester. Still, among the respondents, most numbers for group A went up, while they went down for group B. This indicates that students that responded did find the active learning method more useful.

DISCUSSION

The overall performance of the treatment group was not significantly different from the control group. However, the treatment group did better on CT related questions than the control group. Combining the two results implies that while the treatment group performed CT tasks a little better, their scores on the remaining questions actually dropped. Also, while the increase in CT scores was significant, the mean difference in scores (roughly 1.2 percentage points) was small. However, given that the attendance was usually around 25% of the class, this difference may be more meaningful than it seems. The average for the entire group was influenced in a positive way by the effect on roughly a quarter of the students that actually attended and got the benefits of the active learning. While the literature in the US generally shows improved learning overall and improved CT skills using various active learning strategies, the results here raise some important questions about why a method so successful in the US was less successful in Egypt. One obvious possible reason is that with any active learning strategy, the implementation depends on the professor’s ability. It is worth mentioning that the professor that adapted these techniques in the classroom here received training on teaching methods both in the US and in Egypt (from a US professor). The second reason for the weak results could be the class size in which the active learning method was implemented. With a class size of about 1500, it was possibly the largest class in which such a method has been attempted. Unlike in a typical US classroom with about 50 students (or a large class with 100 to 200 students, typically), the size does present significant difficulties. While students can be asked to form groups in class and discuss amongst themselves, the instructor cannot really

walk around the room to monitor what is going on and keep students on task. Some of the class participation involved students moving to the instructor's desk to use the microphone to answer questions since the sheer size of the auditorium for such a class size required the use of a microphone. This took a lot more time given the size of the room and the movement involved. A shortage of wireless microphones and technical support occasionally added to the difficulty of managing discussions.

Low attendance is a third reason for the lack of success in implementing this method. Active learning by definition requires student participation, and with attendance roughly around 25% of the class size, even stellar performance improvements in that group are unlikely to show results when evaluating results for the entire class. The roughly 25% that do attend a given class are also not necessarily the same students throughout the semester. The low attendance may be the most important direct reason for the lack of improvement seen. The section used as the treatment group was the last one in the day, while the control group section was the first. Since students go from one class to another with very little break in between, so exhaustion and hunger may have contributed to both low attendance and the inability to focus enough in class for those that did attend. However, another explanation for the results is a broader, systemic issue. Many cultural and educational policies in Egypt serve as barriers to the implementation of any new learning method. Lack of attendance among students, evidenced in this study, is merely a symptom of some of these issues. As reported in the Reviews of National Policies for Higher Education in Egypt (2010), the only criterion for student access to higher education is their grade on secondary school examinations. The students have little option to choose a course of study they want, based on some other test of aptitude or simply personal interest beyond that. The system puts them in a program based on the grades. Attendance in classes is optional, so there is little extrinsic motivation for attending classes.

The students' resistance to change is palpable, as they learn from an early age to be passive receivers of knowledge, rather than active seekers. The literature on education in Egypt suggests very strongly that students are primarily expected to memorize concepts and little else throughout their schooling. Infrastructure and training for teachers are lacking. The expectation set in schooling means that by the time a student arrives at the university, he or she has had few occasions where they had to actively think in a classroom and no experience with business outside of it. Thus, even simple exercises that ask them, for instance, to think about the application of a theory to practical business can be stressful. Students are generally concerned with knowing answers that they believe the instructors want to hear/read, and have not had any experience in intellectually challenging ideas in the classroom. Student responses to the informal survey via Facebook emphasize the above fact. Asked why they did not attend classes more often, the treatment group respondents mentioned the difficulty of the teaching approach. From the treatment group, 35.3% out of 51 respondents said this was the most important reason, while in the control group, only 2% of the 50 respondents had a problem with the teaching method. When asked to elaborate further, 50% of them clarify that they found the new approach was difficult because they are used to learning by the traditional lecture method for 12 years and that all other courses that semester used the traditional method except for this one. Making the adjustment for just this section was more effort than they were willing to put in. The second most important reason cited by the students in the treatment group (21.6%), and the most important one for the control group (40%) was a general attitude among students regarding some courses. The following statement (translated from Arabic) by a student sums up this attitude: "Courses in the Social Sciences in general, especially conceptual courses (ones without mathematics, like Introductory Marketing) are so simple in comparison with quantitative courses (Accounting, Finance) that attendance is not needed to succeed."

Students are acutely aware that their education does not provide them with the practical skills necessary, as they hear from others in the job market. This awareness reduces their incentive to attend classes, knowing that in a class of over a thousand students, they can get no personal attention, and what they need to memorize for an exam is in some book anyhow. Further, the final grade in the Egyptian system depends entirely on the final examination (100% of the overall grade is based on one final examination).

There is, therefore, little reason to attend classes regularly. All one has to do to succeed is study hard two weeks before a final exam. The results bear this out. The control group showed an attendance of 30% on average throughout the semester. In other words, fewer than 1 in 3 students attend class regularly. With the treatment group, attendance actually went down significantly. Students were told on the first day that this would be a different approach to learning that required their participation. The reduced attendance shows the students' discomfort with being asked to participate in class discussions. Other reasons cited by students include work schedule and unsuitable class time. On a positive note, some students, after overcoming the initial resistance to change, appreciated the new method and provided positive feedback about the method helping them to think more critically. Part of the initial resistance was their belief that the new way of learning would actually hurt their final examination scores. Some of them provided similar comments almost a year after the experiment.

CONCLUSION

While most pedagogical studies show unqualified success in adopting some teaching innovation or other, it is important for researchers to know the limitations of such methods, and some of the barriers to success. A key contribution of the study was to identify the difficulties in adopting such methods in places like Egypt, where there are some systemic and cultural barriers to new teaching methods. This research showed that an active learning strategy was known to be successful in relatively smaller class sizes in the US is hampered by these barriers when attempted in a large class in Egypt.

Implications for Education in Egypt

There are a few things that are worth considering for the education system in Egypt as a whole. First, the change must occur at an early age so that university students are not jaded by the system before they enter the university to believe that classes are useless in general. This means investment in training and infrastructure at the primary and secondary school levels. Entry into universities is another question that needs to be addressed. Rather than push students into programs they are not interested in or not ready for, and creating class sizes that are unmanageable, a better system for students to choose a path based on aptitude is needed. Instructors at the University level also need training and incentives to try to improve methods of teaching. While there are a few isolated attempts, this study shows that such attempts can, in fact, backfire if tried in isolation, going against all traditional expectations. Student behavior is based on what they perceive to be important for the final grade. The system needs to change to give professor more control over the grading scheme used in the class, with the grades based on a variety of activities including tests, projects, case analyses, etc. throughout the semester. The literature on learning indicates that learning in small chunks is more effective than attempting to do too much at the end of a semester. This would automatically improve attendance. However, doing this would be near-impossible with class sizes being what they are now. The instructors would have no way of evaluating 1500 students multiple times in a semester. The use of technology may help in this regard. However, technology will only help if used with appropriate pedagogical strategies in mind.

Future Research

While pedagogical literature is rich in the US, there is an opportunity to study methods that will work in other cultural environments like Egypt. Active learning strategies can be tried in early childhood education or in secondary schools to gauge the impact. It seems unlikely that students who have explicitly been discouraged from independent thought in the classroom from early childhood would suddenly thrive when asked to do so in a university course. At the university level, active learning strategies can be tried in smaller class sizes, to separate the impact of class size and cultural/systemic issues. Also, active learning strategies can be attempted in other business courses.

APPENDIX

Appendix A: Suggestions for instructors in using the teaching approach used in this study (some of these are specific to conditions in classrooms in Egypt)

1	Preparations before the Semester Begins
a	Prepare an accurate and detailed syllabus and make available to the students. They should be aware of the schedule of topics for the semester, as well as key learning objectives. This practice is not common in the large Arabic sections in Egypt. The syllabus also should contain some information about the new pedagogical method, with both student and instructors roles explained.
b	Any resources used through the semester, including online material, cases, and books (reversed book created in this case) should also be available from the beginning of the semester.
c	Find or create mini cases in writing or on video for class discussion.
2	At the beginning of the semester:
a	At the beginning of the semester, let students know that a new method of teaching will be used, so that they are mentally prepared for class discussion and problem solving rather than taking notes only.
b	Create a Facebook page for each group for interaction online.
c	Take a picture of the class each time to serve as attendance document.
d	Ask students to prepare questions based on the case for discussion in class.
3	Managing a class session:
a	Keep the key objectives for the class session in mind.
b	Ask students to make groups of 5 or 6.
c	Have them work on questions related to the topic, from easy to difficult, by using the reversed textbook, or from an assigned case.
d	Manage a discussion without using any unfamiliar terminology to begin with. When students understand a concept, the terminology can be introduced as something they already understand.
e	Encourage the students to participate, to overcome their fear of speaking in front of a large group. The small group activity can help reduce that fear by getting them started in a discussion among their peers.
f	Avoid statements like “That is wrong” or anything that discourages participation. The instructor can invite other students to challenge incorrect statements made by someone.
g	Guide the discussion so that the key learning objectives are met through this process. This process is not an addition to standard lectures, but a substitute for them.
4	Designing the final exam:
a	The exam should be designed to match the detailed course objectives in the syllabus, with questions at various levels of learning included.

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