

## ACTIVITY BASED LEARNING: AN EFFECTIVE MODEL FOR BUSINESS SCHOOLS

N. Santosh Ranganath<sup>1</sup>

### Abstract

*Activity-based learning is a successful teaching model in the field of Management, Medicine, Engineering and Science, and it has recently found its way to business schools. At its core, this approach provides a way to integrate learning within students' knowledge, and, by exposing them to a variety of activities. There is growing corporate demand for pedagogical techniques that focus on their immediate problems rather than on lofty theories or even case studies which leads to ABL approach. In this paper, it is argue that an active interaction with a learning object in activity driven or activity-based learning enables construction of learners' mental models. The goal of activity-based learning is for learners to construct mental models that allow for 'higher-order' performance such as applied problem solving and transfer of information and skills. This paper focuses on the crucial model of learning objects with activity-based learning.*

**Keywords:** ABL, Strategy, Management, Professional Skills, Operations Research approach.

### INTRODUCTION

Activity Based Learning (ABL) in Business enables managers to understand product and customer profitability, the cost of business processes, and how to improve them. Since conventional management accounts and standard costing systems do not provide this information, it is perhaps surprising that ABL is not more widely used. Unlike many management techniques, research shows that 80 per cent of companies that have employed activity-based techniques found them to be successful. Learning is biochemical activity in the brain; a relatively permanent change in behavior; information processing; awakening, remembering and recalling; social negotiation;

critical thinking; knowledge construction; conceptual change; meaning making; activity; turning perceptions to environmental affordances; and learning is chaos. These are merely alternative conceptions of learning. None of them is completely correct; all are descriptions of different aspects of learning.

Activity-based learning is a successful teaching model in the field of Management, Medicine, Engineering and Science, and it has recently found its way to business schools. At its core, this approach provides a way to integrate learning within students' knowledge, and, by exposing them to a variety of activities, helps them learn how to learn. Due to the high degree of interaction in ABL, essential instructor skills involve facilitating, motivating, enabling and coaching rather than simply presenting facts and figures didactically. Implementing an "innovative" teaching approach is only successful when the specific infrastructure and student situation are considered. Thus, a modified teaching 'strategy' must be carefully developed.

In a 'traditional' class there is a perception that the most industrious students are those who passively soak up everything the teacher might serve up to them in a suitably 'didactic sauce' only to 'spout it' back word-for-word. It was important, therefore, at the beginning of the course, in the introductory lecture, to stress that participants do not need to repeat things learned word-for-word. Rather it expressed the vision that students evolve into "investigators", starting an independent inquiry into a topic of interest in a self-directed manner. Consequently, facilitating, motivating, enabling and coaching are the key skill-set of the instructor (facilitator) rather than just didactic lectures. At the beginning of the class, it is illustrated ABL with a famous saying of Confucius that stresses participation as the key to students' learning success.

There are numerous individual learning theories attempting to find answers to the problems of helping students learn and adapt to new situations; two stand out: behaviorist theory and cognitive theory. Behaviorist theory states that knowledge exists independently and outside of

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<sup>1</sup> Faculty Member, Department of Commerce and Management Studies, Dr.B.R.Ambedkar University, Srikakulam, Andhra Pradesh, INDIA. Contact: nsranganath@yahoo.com

people, i.e. only small bits of information are transferred to learners, with learning success achieved only when a connection is established between a stimulus and a response. The second theory, cognitive theory, stresses the importance that learning is a result of the interaction of a particular structure and a person's own psychological environment. In this theory, learning modifies the student's "world of knowledge" by interaction processes, so that he or she acquires new insights or changes old ones.

### **Reshaping the Management Education in Business Schools**

Corporate leaders have been placing demands to the business school to redesign the programs while they need management skills to face the challenges described in the previous section of the research. This reshaping of management education goes to the context. So, a critical review of management education has been given first. Then the evolution of management education has been described to know the changes happened with the contemporary challenges. Finally, the restructured MBA program has been examined to evaluate the roles of business school. Business schools have come under attack in recent years for the poor job they do of providing relevant training and skills for their students. There is growing corporate demand for pedagogical techniques that focus on their immediate problems rather than on lofty theories or even case studies. Business speakers at a recent international Association for Management Education (AACSB) symposium on continuous learning continued to make this plea as they challenged business schools to "be more proactive and partner with business leaders in their communities...and to make their curricula more relevant".

Teaching about uncertainty and increasing environmental turbulence is not new - these concepts have been discussed since the late 1960s. Most teaching model and materials are geared toward enhancing the ability of large organizations to adapt to change. Those that are more person-centered treat change as necessary evil and present topics such as resistance or coping with change. Teachers and learners are facing increased uncertainty, paradox, pervasive

rapid change, and dramatic challenges to the status quo and traditional mindset. In response, the individual's ability to adapt to change and embrace ambiguity should be more central in the curriculum. Even the actors in business school mostly tried to accommodate the change issue into their curriculum, there were resistances everywhere. But three had been pressure from different stakeholders to bring necessary changes into the programs of management education.

Change is driven by many other factors as well, including the increasing importance of international rankings, public pressure on teaching performance and the more focused agendas of governmental funding agencies. Primarily as a result of the changes in the way business organizations function, colleges of business are subject to pressures from a number of stakeholder groups, including employers, advisory boards, accrediting bodies, alumni, legislators, and students. As institutions of higher education are perceived to exist for the public good, they are increasingly held accountable for the quality of outputs produced. The business organizations those have been increasingly trying to cope with the changing demands of the environment looking for managerial expertise with required skills. So, an emphasis on skill development has transformed the curriculum debate.

The discussion has moved away from determining the appropriate balance of content, which is a discussion rooted in traditional functional areas, to a determination of effective methods for developing softer skills, self directed learning, an a holistic understanding of the internal and external environment of organizations. Traditional functional curricular approaches often do not address these issues. Hence business curricula are gradually shifting from functionally fragmented to convergent and coherent, with a focus on developing specific competencies. The redesigned curricula must cut across traditional boundaries to develop and reinforce the appropriate bundles of technical knowledge as well as social and organizational skills.

In the 1950s, business schools in the United States were criticized for being overly narrow and vocational in their orientation. To remedy this, they were encouraged to, and did, hire

faculty from a variety of acidic disciplines relevant to organizations and management so as to enhance their scholarly legitimacy. Now, however, the faculty who were hired to achieve academic respectability for business schools are being criticized by the corporate community for their lack of experience in business firms, for the perceived irrelevance of their research, and for their unwillingness to provide the kinds of training in practical professional skills the corporate world feels in need.

### **Contextual Factors of the ABL Model**

A doctoral-level statistics course presents a challenge for both students and instructors. Typically, there is a wide range of student skills, different levels of previous knowledge, and varying interests. When a course is compulsory, a dislike of statistics or even a phobia of math may add to the complexity. Given the specific environment in which we were teaching, we had to anticipate cultural induced challenges in our course design. Typically, students in China were accustomed to being taught in often-overcrowded classrooms in a more authoritarian teaching style, which meant student questioning and lively discussions were rare. As a consequence, our participants typically learnt and acquired knowledge and skills as the result of observation, recall, memory, imitation and replication. This is in contrast - even diametrical - to education in North America and Western Europe, which is traditionally based on a teaching style which fosters independent research, critical thinking, and participation and discussion in class.

Thus, the biggest challenge for us was how to bridge the gap from previous cultural notions and expectations of Chinese education with a new ABL approach in course participants' learning experiences. The facilitator's previous experience with domestic and non-domestic Chinese students helped to cope with these special factors. To gain a composite picture of the student situation and to fine-tune our pedagogical strategy, we administered a survey in the first session before the training started to assess teaching preference, knowledge of statistics and problem-solving skills. Students rated various statements on a 1 to 5-point Likert scale ranging from "strongly agree" to "strongly disagree." We evaluated the responses of 39

participants. The following provides a rough impression of the questions covered.

**1. Overall knowledge in Questionnaire Development Process and Survey Research:** By and large, the overall comprehension about surveys was good. 74% of course participants strongly agreed, stating that prior experiences prepared them to develop questions for a survey. Similarly, it helped them understand the variety of research methodologies. However, one out of four PhD students and junior faculty disagreed with the propositions that they gained experience in accurately performing business calculations (indeed this item received the lowest mean in this construct/area).

**2. Knowledge and Higher Empirical Skills:** As expected, empirical skills were not developed to any great extent. A little more than half the participants felt prepared by former courses in applying statistical inference hypothesis tests and predictive analysis (e.g., regression). Nearly one in two respondents stated that they did not gain skills in applying differences tests (e.g., ANOVA) and advanced methods such as SEM (Structural Equation Modeling) or PLS (Partial Least Square) Modeling. It seemed that, similarly to the U.S., participants focused on analytical methods and case methods ("Operations Research approach") and not on empirical research.

**3. Problem-solving Skills:** A mixed picture was gained in this area. While the majority of the students had no problems in searching information in electronic databases, one person in three experienced difficulties when retrieving information from literature that is not available electronically. Participants felt very well prepared in working efficiently in teams and taking responsibilities for a process or specific result (teamwork). The lowest mean value was observed in the use of creativity techniques in team meetings (i.e., brainstorming); every third participant identified insufficient skills in that particular area. The highest standard deviation was observed for the item "evaluating a published paper", and this reflected the different student levels in the course.

**4. Linguistic Skills:** Proficient linguistic skills in English were expected although students had widely varying English oral and writing skills. 48% of the students agreed that prior courses fostered oral presentation skills while 45%

disagreed - nearly none of the students remained 'neutral' on this issue. Three out of ten students identified a lack in their business-writing skills. There are many reasons for this. As in many Chinese universities, students have compulsory English classes and are exposed to English 'Power point' slides in "bilingual courses" (which, however, are usually taught in Mandarin) but this resulted in variable levels of English proficiency. Some students had returned from visiting positions in the U.S. or Germany.

**5. Preferences in Teaching Style:** In business education, five different generic teaching styles can be distinguished - problem-based learning in SCM with undergraduate students. The highest preference was given to a teaching style that outlined a problem, before applying possible methods and finally a solution approach. By contrast, the pedagogical strategy - that starts by explaining methods and exemplifying them in the next steps - was given the lowest preference. A middle position went to a teaching style that starts by outlining a research issue and giving students an opportunity to investigate it for several weeks under guidance.

**6. Degree of Satisfaction with Previous Instructor's Way of Interaction:** Students in the sample indicated that they are most satisfied with previous instructors who speak slowly and use simple language. More than 60% explicitly wished to be involved in class discussions. As expected learners considered that textbook teaching was the least preferable option that was confirmed by three out of ten students.

The self-assessment showed that participants prepared or reviewed their work for an average of four and half hours per week. They also thought that their classmates spent three hours preparing for each double session (e.g., conduct analysis, review examples). However, this may be partly due to the fact that completing ABL-based model is more time-consuming than a traditional technique-based course since ABL forces participants to spend time on the 'right' questions, and not just to listen to 'answers'.

## Activity-Based Learning as Pedagogical Nature

In the pedagogical concept of activity-based learning where the students is provided with a number of learning scenarios rather than e-book

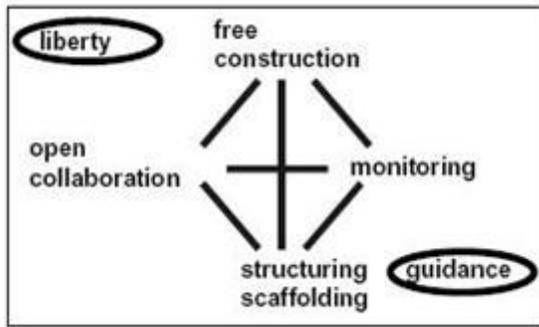
versions of paper-based manuals. As mentioned the real drive to engage in such approaches came from the interactions that the academic staff engaged with high-profile researchers and practitioners, in the field of Management Educational Technology. The educational philosophies that influenced the pedagogical approaches mainly came from the activity-theoretical method of conceiving the learning process together with Schneider's definition of project/activity-based learning. It is argued that new pedagogies alone including project-based and collaborative learning do not guarantee automatic results.

The role of the teacher was therefore still very crucial for meaningful and successful learning to occur. However, the teacher was not the same "know-it-all" version that we are accustomed to but mainly with a redefined role mainly that of a facilitator, orchestrator and manager of the pedagogical scenarios that he elaborates for the students. As orchestrator, the teacher can be seen as the one who is the author of the pedagogical scenarios and learning content. As facilitator, he is the one who is the pivotal point for learner support as he needs to be there to clarify concepts, resolve students' perceived deadlocks, and helping in the fuzzy parts of the learning activity.

The first problem which is of pedagogical nature, that can arise in such situations are the possibilities of over-structuring of the scenarios that result in the same 'spoon feeding' technique that is so much criticized by proponents of socio-constructivism. It is this lack of too much structure in the learning activity steps that creates the fuzzy element to foster original thinking as well as unique and different solutions from the learners. The idea is to have semi-structured learning activities or scenarios to prevent learners to propose stereotyped work that look similar to each other.

Learners should have the freedom to propose their own solutions but in a negotiated way with the teacher. Daniel Schneider also concurs with this by highlighting the need for equilibrium between liberty and guidance (figure 1).

**Fig. 1:** Need for equilibrium between liberty and guidance



The second issue is more complex, given that the teacher no longer performs one single role, but panoply of roles from orchestrator and facilitator to the management of the learning process. From experience, this can be a really difficult situation for the teacher who is more and more solicited by the students and at any time. The time that a lecturer has to devote with respect to project/activity-based learning also increases drastically with respect to the number of students and/or the number of learning activities to be monitored. It also depends on the number of courses being taught by one academic. While the first implementations of activity-based learning were within the Pedagogies, the number of students was less than twenty and it was perfectly manageable for the academic. However, as the number of students started to grow and the workload of academics involved in activity-based pedagogies increased to a great extent.

At some point, taking into account the constraints, the exigencies of service and other professional commitments, tend to realize that having recourse to such efficient, innovative and competencies-based pedagogies are not affordable and sustainable by institutions in developing countries with limited resources. This leads us to the third important issue related to the implementation of activity-based pedagogies. While teachers need to have the right mindset to be able to keep up with their new roles, students need to also understand their new responsibilities and tasks. In an e-learning environment focused on the development of skills and competencies, students are no longer mere recipients for 'pre-cooked' knowledge. Students need to be equipped with the relevant techniques of methods of inquiries, information search,

retrieval and classification as well as application in context-dependent scenarios. Therefore, students need to show a more entrepreneurship culture and independence in the learning process. An entrepreneurship culture would therefore mean more autonomy, development of self-management and self-regulation abilities in terms of commitment, time management and work rate.

### **ABL - As a Successful Model in Business Schools**

The field of business requires multifaceted practices for real-world problems as much as or more than any other field. A business school expects that application skills and knowledge available to management graduates will be comparable to the skills and knowledge possessed by business professionals. Creating learning situations where knowledge can be acquired, organized, and applied, then, is a vital consideration for business educators. Activity-based learning facilitates learning transfer and real-world applicability, which is the main concern in the teaching philosophy of business education. Recent developments in advanced technology have received keen attention in the field of business education. The integration of technology-supported instruction and activity-based learning provides students with an environment to interact with a case in diversified ways and settings

Activity-based learning describes a range of pedagogical models to Business and Management teaching. Its core premises include the requirement that learning should be based on doing some hands-on experiments and activities. The idea of activity-based learning is rooted in the common notion that Management Students are active learners rather than passive recipients of information. If a student is provided the opportunity to explore by their own and provided an optimum learning environment then the learning becomes joyful and long-lasting.

Activity-based learning model is a cognitive-learning model which is considered a "constructivist" learning theory. Essentially, a learner "constructs" his own microcosms of knowledge from past knowledge and/or current experiences and interacting with data. He or she actively seeks new information, and is actively

engaged in the process in the ways (he) gains, assimilates, and utilizes knowledge. The facilitator engages learners in outlining real-world problems in the first place instead of starting with a classification of problem-solving methods. Integrating ABL elements is thus a promising way to enhance students' learning experiences.

Applications can be found in Management, Science and Engineering and more recently, also in operations management. Recently, the Harvard Business School even created a committee on activity-based learning aimed at integrating students' extracurricular activities with their academic experiences in the classroom. There is little relevant scientific literature about statistics courses in operations management (OM) addressing specific needs of PhD students in transitional economies. However, it can build on the experiences made by Burton reporting on typical problems of statistics classes at the PhD-level. For example, instructors cannot take for granted that students have advanced skills in data collection, particularly in developing surveys, or well developed skills in formulating a specific hypothesis.

"Empirical Research in Operations Management" - a course established by Charles J. Corbett (Decisions, Operations and Technology Management), Anderson School of Management at the UCLA (University of California, Los Angeles) - has similar objectives. However, given that specific learning environment, Corbett spent about half the course time critiquing empirical papers in OM, emphasizing the logical correctness of the study and the underlying empirical research methods, and the preparation of an empirical term paper. With efforts to reform university teaching in China, Chinese scholars support the notion that the traditional way of learning is not sufficient since companies have changed in terms of what they require from students. Instead, participation and giving students the time to explore issues is vital to long term success in China. Therefore, Chinese universities want to promote dualism and offer active learning experiences.

ABL is not a completely new teaching style because it can be traced back at least as far as Socrates and Humboldt. For a long time, it

seemed that universities neglected to think about the process of learning, since it is a highly active process in which it is imperative to convince students to speak, read, write, and think deeply. "The thinking required while attending class low level comprehension that goes from the ear to the writing hand and leaves the mind untouched". In contrast, the success of ABL model is to make management students feel responsible for their learning and to support their own individual development. For several years ABL has been implemented in teaching-learning curricula in a variety of settings from business schools to universities.

## CONCLUSION

Activity Based Learning is an approach that has now come of age. ABL is not a technique; it is about Business Management. ABL needs to be understood and implemented by all functions so its power can be unleashed and the benefits obtained. Over time, ABL has evolved considerably and is now being applied in manufacturing, service companies, utilities, logistics, telecommunications, government bodies and many more sectors. With ABL; businesses can make dramatic improvements in measuring product and process costs, and more importantly customer profitability. This study focuses on Activity-based learning as a successful model used in the learning of Business Management, Mathematics, and technology. An investigation into how language learning and Activity-based learning compare and contrast will be useful in determining if there are aspects or processes that can be transferred for the benefit of teaching and learning Business Management.

This study will focus on Activity-based learning because it is hailed as one of the best ways of learning and teaching, especially in Business Management. Activity - based learning is assumed to be built on the rationale that management students learn best when they do or are involved in action. Learning is then structured into 'activities' that will facilitate what has to be learned. This specific approach is closely related to "discovery based learning' and 'inquiry based learning', all of which are linked to methodology in 'Outcomes based education'.

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