

An Exploration of Issues Relating To the Implementation of Active Learning in Saudi Arabian Universities

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Abstract: - Saudi Arabia's Vision 2030 embraces ambitious proposals for educational reform. It includes the preparation of a modern curriculum focused on rigorous standards which will be aligned with a range of educational outcomes. Saudi higher education has laid the groundwork for developing and improving educational aspects in relation to students and lecturers and has adopted all-new approaches to education. Accordingly, this study aims to explore the perceptions of Saudi lecturers towards learning approach.

The objective of this paper is to classify Saudi lecturers' perceptions of the advantages, challenges and future of AL. Therefore, the vital factors that affect the lecturers' views are discussed. Qualitative methods were used to gain rich descriptive data to facilitate the exploration of the phenomena. Three universities have been selected to be investigated in this study, namely: Umm Al-Qura University, Kind Saud University and Princess Nora bint Abdulrahman University.

The results of this paper revealed a distinct pattern in the adoption and use of AL in the participating universities, although the processes of implementation varied from one university to the next. A particular emphasis of this project was that AL offered heightened learning experiences and improved students' understanding of their courses.

Keywords: - Active Learning, Cooperative learning, Problem-solving, Saudi Arabia

Introduction

With the unprecedented advance of science and education, the expansion of knowledge and the rapid development of modern technologies, it has become imperative to develop a method of learning that encourages students to take responsibility for these changes and provide the requisite skills such advances demand of the next generation. In pursuit of this objective, numerous pedagogical experiments have been performed by various researchers (Sidhu and Srinivasan, 2018). The intention is to create a positive impact on learners' attitudes towards themselves and towards their peers, to increase their interest levels and attention spans, to stimulate greater preoccupation and interaction with the activities they face, and to strengthen the trust between the lecturer and his/her students, wherein students receive encouragement and support and are given the opportunity to choose the work themselves, reflect on their practices and their thinking processes, tap into their creative thought

and innovative solutions to problems and freely express their own ideas (Pit Ho Patrio Chiu & Shuk Han Cheng, 2017).

In spite of criticism, traditional methods are still in wide use in Saudi Arabia, as studies by both Zaidi (2008) and Al-Otaibi (2013) have highlighted. Hence the Ministry of Education in the Kingdom of Saudi Arabia has sought to provide a pedagogical system capable of cognitively contributing to the support of effective knowledge and developing Saudi learners who are able to face up to scientific challenges with sufficient prowess to compete with other leading countries (MOE, 2010). Whether in the context of the chosen curriculum or the elements of the educational process (teacher, learner, and the learning environment), if it is to become effective, this new-look learning process should employ AL strategies - cooperative learning, problem solving and mind-mapping, to name but a few (Corkin, Horn & Pattison, 2017).

Purpose of the paper

A primary purpose of this study was to comprehend how Saudi female and male lecturers experience and realize AL and its future in Saudi Arabia. At the female campus of Princess Noura University in Riyadh, King Abdul-Aziz University in Jeddah and Umm Al Qura University in Makkah the participants shared their views about active learning.

Furthermore, the study aims to explore what critical factors influence the participants' opinions about the AL environment as a means of promoting the didactic process. These factors are to be examined by exploring the experience of the lecturers and their views of the main aspects of AL and the challenges they encounter. Exploring the issues that constitute the experience of teaching and learning in an active environment will provide insights into how students and lecturers should be supported in this new learning environment.

Research methodology

Qualitative research methods are often adopted to answer the “whys” and “hows” of behaviour, opinion, and experience-information that is difficult to obtain through a quantitative approach of data collection (Guest et al., 2013). Qualitative data, typically in the shape of words rather than statistics, have continuously been the key element of certain fields such as anthropology, education, nursing, psychology, sociology and marketing. In this study, one of the aims is to access the meaning that respondents attach to actions; interviews and a focus group will provide valuable in-depth data for analysis. As noted above, qualitative methods were used to acquire rich data that would provide the researcher with a sound understanding of each participant's experiences. The interview method was employed where questioning was used to explore issues in considerable detail. Observations provided a broad overview of educational methods and facilitated the exploration of components that might have been missed in other methods. Three approaches were used to gather data: observations, focus group discussions, and in-depth interviews. For lecturers, several focus groups were conducted; in universities UQ and KS, 2 focus groups were

arranged in each university; each group comprised 6 participants, and in university PN 3 groups were arranged, each containing 3-4 participants. For learners, 4 focus groups were conducted, each consisting of 5 to 6 participants in UQU; in KSU and PNU 3 focus groups were arranged each consisting of 4 learners. In-depth interviews from 9 to 12 learners were interviewed in each university. Furthermore, the learners and the lecturers were observed through face-to-face learning.

Active Learning

AL is usually described as any instructional method that engages learners in the learning process (Routena et al., 2018). In contrast to passive-learning methods, where the responsibility of education rests with the educator, AL is a student-centered, inductive process. It engages learners by requiring them to do purposeful activities and think about what they are doing. Therefore, AL does not merely entail performing activities; it is an opportunity for learners to reflect, analyze, evaluate, synthesize, and communicate (Danya et al, 2017).

AL can be defined as a method of learning and education aimed at providing an educational environment which stimulates the student's responsibility for self-education, and involves active participation through reading, research, and the use of higher mental functions (Smith & Cardaciotto, 2011). It is usually structured and well-organised because if classes are to provide effective settings for learning then teachers must be fully prepared with a range of challenging tasks, problems, texts, projects, experiments or other activities for the students. Moreover, these activities take place under the guidance and supervision of the educator in an atmosphere of intimacy and cooperation between learners in each class or group (Russell-Bennett, 2010).

Mahri (2017) and Al-Mehdawi (2013) confirm Dewey's (1938) view of the importance of placing the learner at the centre of the learning process and of the acquisition of learning through experience. Therefore, the responsibility of the university is to provide activities for learners commensurate with their circumstances. Achievement is measured by

the extent of the learner's growing ability and expertise in dealing with new situations. This is achieved through their analysis of those skills, through discussion with others, through questioning, by performing written tasks, and by engaging in activities which oblige them to respond to problems, ideas, and opinions expressed in various ways depending on the subject or topics under discussion (Smith, 2011). The importance of AL is reflected in the positive results achieved by the learner in terms of his/her knowledge, skills, and attitudes. These results have been confirmed by research on AL (Falcon, 2016). According to Basham (1994), AL constitutes a bridge which helps learners to cross the gap between the learning process and the educational objective. It is incumbent upon the learner to learn much more than simply how to listen; he/she should also be able to read, write, discuss, reflect, exchange views, accept criticism, reach the correct results based logically on consultation, and respect the views of others. Chickering and Gamson (1987) reported that a team of researchers reached the following conclusions on active learning: learning is not a spectator sport; learners do not learn a great deal by sitting in the classroom listening to educators and memorizing what is said to them; rather learners should talk about what they are learning and link it to previous experiences, applying the knowledge to their daily lives and making what they learn part of themselves. Gibran (2000) and Youssef (2016) proposed that AL depends on other elements:

1. Direct action: this provides learners with concrete experiences and helps them to form abstract concepts.
2. Learning by doing: combining physical activity with mental activity in interactions with objects; to explain the effects of these interactions, connecting interpretations to a full understanding of the world.

3. Internal motivation: the learner derives motivation for AL from within; his/her personal interests lead to questioning and the need for exploration, experimentation, and the building of new knowledge
4. Problem Solving: the essential experiences through which learners develop their ability to think when faced with unexpected real-life problems; it is linked to what they have learned about the world, raises their awareness, and helps them in the solving of unexpected situations.

The provision of these elements makes the AL dynamic more positive for learners. It increases motivation to learn and the desire for discovery and interaction with the phenomena around them. Interpretation and construction of knowledge based on understanding and awareness enables learners to acquire the basic skills by which they continue learning outside of the classroom.

AL is the basis of what is known as 'authentic learning', which is one of the recent trends designed to achieve maximum growth for the learner - mental, emotional, social, and physical (Al-Rashidi, 2015). Astal (2010) stated that the characteristics of AL consist of successive planned and meaningful activities and actions carried out by the learner. Moreover, the input of the learner cannot involve a lecturer handling input in the learner's stead; all this must occur in the form of different organisational learner-centered activities.

AL is particularly effective when implemented within a framework founded on a powerful theoretical model of how learning happens in the classroom. Kolb's Model of Experiential Learning (Kolb, 1984), derived from Lewin's model of Action Research, and illustrates the key elements of experiential learning, as shown in Figure 3.1.

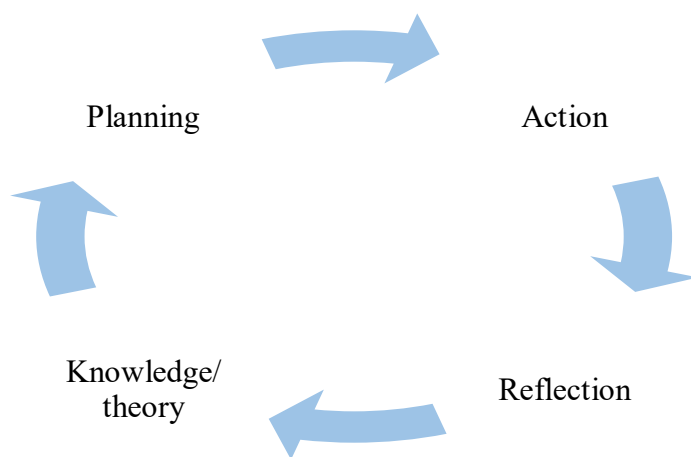


Figure 1: Kolb's Model of Experiential Learning (Kolb, 1984)

1. Action: the learner implements some kind of activity linked to the lesson or subject.
2. Reflection: the learner reveals what he/she did and what occurred as a consequence of their activity. This can be conducted via journals, through small or large group-discussions, and by free writing.
3. Knowledge/theory: the learner uses the outcomes of the reflection to develop knowledge and theories which, in turn, help additional learning as the learner is able to visualize his/her own theories, not accepting the theory of the lecturer.
4. Planning: founded on the learner's theories, they plan what to do next and expect the outcomes of extra activity. This process moves the learner into levels of thinking that are higher than the mere recalling or reciting of information or facts.

exciting and motivating, and harmonizing the diversity of learning environments.

Active Learning in Saudi Arabia

Effective processes of learning in higher education require significant contributions from institutions. Implementation of AL has to be addressed by institutions to facilitate the best learning experiences and to overcome any difficulties of this new learning environment (Alebaikan, 2010). Hamdan (2014) highlights the vital role of institutions in creating the required policy, allocating resources, planning, and support systems to allow positive implementation of AL programmes. Furthermore, a quality experience for the learner is becoming one of the key purposes in most institutions and universities. The role of institutions in an AL environment certainly has a powerful effect on the educational experiences of both learners and lecturers (Althagafi, 2008). The Ministry of Higher Education has begun to encourage excellence in education (King Saud University, 2014), which in turn is prompting the universities to develop common policies for present and proposed educational institutions. Furthermore, some universities have started establishing units or centres dedicated to improving education and learning in the university. Of these UQU established a Centre of Active and Interactive Learning. The Centre aims to present a more comprehensive mechanism to improve education and learning in the College of Business Administration; the objective when founding the Centre was to provide support to members of the teaching staff to develop skills and

A favourable psychological environment and suitable university facilities are necessary for AL to take place and to be beneficial (Zahrani, 2012). Kojak et al (2008) confirm this, saying that an AL environment would contain a rich variety of sources of learning and would be infused with an atmosphere of tranquillity and fun. Additionally, the environment would be dominated by an atmosphere of freedom and autonomy, encouraging learners to be motivated and to think independently. Al-Ghamdi (2011) stated that the main characteristic in an AL environment would be the shift from a focus on the lecturer to a focus on the learner, making it more

methods and give them knowledge of state-of-the-art teaching methods (<https://uqu.edu.sa>).

According to the website of the College of Business Administration, among the most important activities of the Centre is the planning and arrangement of interactive workshops, the development of curricula, quality assurance of learning processes, and encouragement to researchers in the field of education and pedagogy. For example, the Centre arranged several workshops for members of the college teaching staff in order to explain innovative methods of teaching. The workshops were introduced by speakers and experts in this field, including Professor Joseph Mick La Lopa from Bordeaux University.

The college provided the Centre with the facilities to host the courses and workshops and promote active learning; a 50-person class was established and dedicated to demonstrating teaching using active and interactive learning. The process included teaching male and female students through various smart class mechanisms and by running simultaneous asynchronous and combined programmes (<https://uqu.edu.sa>).

National Transformation Programme (NTP)

“Saudi Arabia’s Vision 2030” has been adopted as a roadmap for economic and developmental action, its aim being to give the Kingdom a leading position in all fields. The Vision 2030 sought to identify the general directions, policies, goals, and objectives of the Kingdom (Saudi Arabia’s Vision 2030).

To achieve the vision, ministries, universities, and government entities have had to restructure to align them to the requirements of this programme. To move forward with the proposed timelines all stakeholders need to restructure their management processes, and expand their competencies. Ultimately, this will enhance the level and quality of services provided to beneficiaries, and it will help achieve a prosperous future and sustainable development. The Council of Ministers has tasked the Council of Economic and Development Affairs with establishing and monitoring the mechanisms and measures necessary for the implementation of Saudi Arabia’s Vision 2030.

Vision 2030 and the Transformation of Education in Saudi Arabia

Saudi Arabia’s Vision 2030 is ambitious in its proposals for educational reform. However, the success of this vision will depend on how well the reforms in the education system are implemented and how well they generate a better basis for employment of young Saudis. The government stated in the vision:

“We will prepare a modern curriculum focused on rigorous standards in literacy, numeracy, skills and character development. We will track progress and publish a sophisticated range of education outcomes, showing year-on-year improvements. We will work closely with the private sector to ensure higher education outcomes are in line with the requirements of the job market.”

They added in the vision documents:

“We will continue to improve and reform our regulations, paving the way for investors and the private sector to acquire and deliver services – such as... education – that is currently provided by the public sector. We will seek to shift the government’s role from providing services to one that focuses on regulating and monitoring them and we will build the capability to monitor this transition.”

Results and Analysis

A series of interviews was conducted with a sample of lecturers who reported their experiences and views in regard to the use of AL methods in higher education in Saudi universities. The interview structure and the questions for this study were designed by the researcher and were based on the literature review and on previous studies in the field of learning styles. Participants’ perceptions are represented in three key categories: lecturers’ understanding of AL, their views on the advantages of AL, and the challenges that they faced.

Results for the analysis of lecturers’ attitudes to Active Learning

35 lecturing staff from 3 universities (Umm Al-Qura University, King Saud University and Prince Noura University) participated in 7 focus group discussions, and 21 were individually interviewed.

Furthermore, 12 observation sessions were conducted with 2 lecturers from each of the 3 sample universities being observed twice. To perform the analysis, the participants' responses were classified into 3 categories: lecturers' understanding of AL; their views on the advantages of AL; and the challenges that they faced (for example, the challenges that arise when adapting to a new learning methodology). The lecturers' understandings of AL were explored through the focus groups and interviews, and their views on the advantages of AL and the challenges that they faced were explored by the 3 research methods (focus groups, interviews, and observations). Several participants stated that an advantage of AL is that it engages learners, this being a point that was repeated in response to a number of questions in the discussions and interviews .

1. Lecturers' understanding of Active Learning

Lecturers asked how well they understood the meaning of AL. In the discussions with the participants the lecturers were asked to explain their understanding of this term and how AL could be applied. Most of those interviewed at universities A and B confirmed that they understood what AL entailed, but only a minority of those from university C had heard of the term. However, it emerged that there was some confusion about the term; it became apparent that they already used such terms as 'cooperative learning' and 'problem solving' rather than an all-embracing term such as 'AL'. Indeed, the use of appropriate terms is important because for some lecturers a misunderstanding of the principles of learning methods could have affected the ways in which they employed suitable pedagogical theories in their own teaching. Transforming regular courses to active courses involves more than just transforming the content and delivery. That is, it entails more than merely replacing an oral lecture with a problem to be solved by students. It requires the lecturer to recognise that with AL, students may acquire understanding and knowledge in different ways (Cutting and Kelly, 2016). Students need to engage with the course material and actively participate in

their learning. They should understand that they are the source of power in the AL process.

2. Lecturers' perceptions of the advantages of Active Learning

How lecturers see the relative advantages and disadvantages of AL are an important area to be discovered, and in response the participating lecturers described a range of experiences and offered a number of pertinent observations – both positive and negative. With the benefit of hindsight and experience, most (53%) agreed that AL can provide advantages to students and that it increases the quality of education being provided at tertiary institutions. But, conversely, only 38% of participants reported that AL is used as a general practice of teaching and learning even though they acknowledged the benefits of flexibility, adaptability to many subjects, courses, and topics, and that it is very effective for the development of various technical skills. The focus group discussions and the private, confidential interviews proved to be useful avenues for obtaining data, and the tone of the conversations were generally positive and supportive of AL. However, at this point it should also be noted that not all participants used AL; 40% of participants thought that it had been imposed on them and as a consequence they used it reluctantly or still favoured more traditional forms of lesson delivery. Following are the advantages mentioned by the participants:

1. Increased learner performance

Despite the positive comments by many of the participants, AL has not yet been fully adopted or embraced as a better (or more acceptable) method of teaching throughout the Saudi education system. Nevertheless, the lecturers stated that the implementation of AL confronted orthodoxy by challenging the former lecture-based style and by introducing an approach that was, for many, an exciting innovation which promised markedly better learning outcomes.

2. Pedagogical improvement

Considered overall, the findings of the examination, and particularly the discussions and interviews,

confirm that 39% of the participants noticed pedagogical improvements from AL. That is, they reported noticeable improvements in learning and understanding by their students, and the improvements stemmed from challenging their students to perform activities that involved analysis, problem-solving, and evaluation. This result has perhaps helped the lecturers to overcome any negativity that came from being excluded from the decision to implement AL. The study also indicates that AL was found to give the majority of lecturers' confidence to practice a range of teaching methods and, consequently, to be more creative in the way they conduct their courses – as outlined in the following sections.

3. Variety of instructional methods

One finding which emerged from the discussions and interviews was that per 35% of lecturers AL encouraged them to attempt different delivery modes. For instance, when asked to demonstrate the positive and negative aspects of AL, they expressed satisfaction with active courses because they were encouraged to use a variety of techniques. Indeed, it appears that for 55% of participants lecturing is still seen to be a complement to active methods, perhaps because it is perceived to be a rapid way of imparting a lot of information in a short time. Moreover, some are unsure about the new method and lack confidence in how best to use it, the result being that they cling to old ways. Furthermore, to use AL effectively, one does need to be expert in the content area, though more time may be required to prepare lectures. Using active learning properly therefore entails lecturers spending longer time than usual preparing for lessons. It seems likely that institutional leaders fail to take this into consideration when imposing AL strategies, and this helps explain the observation by Graham (2006) that lectures continue to be the norm in many institutions of higher education.

The experiences of some lecturers show that the integration of technological instruction into AL has opened the way for other teaching strategies. They understood the need for innovations in teaching strategies and found these in an AL approach. They acknowledged the challenges of such new

approaches but appeared eager to improve their pedagogy. They had experienced the transition from teacher-centred to student-centred strategies. An example of this shift in focus was provided by those lecturers who reported using discussions in their learning environments, this being consistent with the survey findings of Steiner and Morberg (2006) at the University of Gävle. Nevertheless, this shift should not be overstated, since in one of the universities under investigation the majority (65%) of participants had avoided using AL and few (15%) used it only occasionally. In this project, it was noted that despite the comments of some of the participants, other teaching methods, such as collaborative learning and projects, were rarely observed. In two universities in this study AL and its strategies were to some extent implemented, whereas the common way of teaching in the third university was traditional lectures or non-active forms of learning.

4. Increased creativity

35% of participants stated that from their experience over the last few years, AL increases critical thinking skills in students and enables them to show initiative. These benefits, in turn, can increase the students' creativity. They found that teaching active courses was a positive experience, for by adopting active teaching they were able to teach creatively. In this context, lecturers tended to use the term 'creative' to mean being interesting, inventive, and imaginative in the ways they use activities to teach particular topics. They were interested in using new methods such as online quizzes, puzzles/problems, and discussions, all of which tend to be student-centred, although they are evidently not yet used much in Saudi Arabia.

The lecturers understood the value of discussions – and of all interactive communications – to facilitate creative and effective teaching. Moreover, use was also made by some participants of discussions to post lecture notes and to review problems linked to assignment files. Furthermore, discussions and other communications were able to be focussed on learners' enquiries and concerns. One of the lecturers used alternative strategies to encourage

learner engagement by dividing the students into groups for active discussion.

Observations can be a useful research tool because they can identify matters that might be ignored in other research methods. This was certainly the case in this project because despite the various AL techniques available for stimulating group involvement and communication, the periods of research observation showed that in some classes, in one of the universities under investigation, there was a lack of interaction, and relatively few collaborative activities were observed in most discussions. This finding indicates a poor understanding of AL strategies among lecturers and a failure to adequately apply meaningful active methods in the university. Consequently, it became apparent that there is a need for training in innovative teaching methods to promote learning and improve creative teaching. Henriksen and Mishra (2013) agree that creative teaching is a difficult skill and cannot be learned in a short time. According to Cachia et al. (2010), creativity includes the capacity to imagine or create something new, the attitude to agree to change, and an enthusiasm for continuous improvement. One key finding of this project is that tertiary lecturers need to develop the competence and confidence to be creative and imaginative when designing their own active courses.

5. Learner Engagement

The use of instructional techniques can be beneficial for instructors and students alike. It gives instructors valuable experiences in using technology effectively in their professional development courses, preparing them to use blended models creatively and strategically as this approach becomes more and more prevalent in the classroom. The integration of different technologies with traditional forms of teaching and learning has the effect of engaging students. As reported by the participants in the focus group and in the interviews, and as seen in the observation sessions, the application of a range of activities fostered greater levels of interest and engagement than mere verbal presentations. This is consistent with some learners' perspectives in relation to behavioural engagement, and some lecturers noticed that their students' cognitive

capacity (that is, their understanding and reasoning) was enhanced and stimulated in ways that were not achieved by traditional oral presentations. According to participants, students' active participation in classroom discussions generally improves their overall learning. It was reported by some of the participants that face-to-face interactions between lecturers and students provides opportunities for learners to express their thoughts with more confidence. They commented that during their classes, student participation in the active discussions was very high and very enthusiastic; a finding that supports the results of Huerta (2007) who wrote that active, directed, and purposeful discussion in class time is a very effective mechanism for learning.

While activities can generally foster engagement, not all participants were convinced. Even though many of the participating lecturers appreciated that AL provides opportunities for more interaction with their students, some were rather negative on this point, admitting that there was not always adequate two-way exchanges or feedback. That is, not all lecturers provide adequate feedback to students, not all students respond positively to comments by lecturers, and some were uninterested in discussing the work.

Lecturers' Perceptions of the Challenges of Active Learning

Similar positive and negative responses emerged when considering the challenges, some viewing them as annoying barriers to their usual teaching regimens, others perceiving them to be minor impediments. The participants cited a number of challenges, and the lecturers identified facilities, equipment, and, sometimes, a lack of skill when using modern educational technologies. Another challenge – or rather a hindrance - was the apparent lack of coordination between the different levels of management, administration, and teaching staff about how active learning could be accommodated within the universities' programmes and courses.

1. Pedagogical Issues

The implementation of AL brings practical problems, but it also has important pedagogical

implications. Moreover, it entailed additional work for most lecturers. Information provided by the participants shows that matters of particular concern were the need to redesign courses, group capacity (that is, the need to have groups that were neither too large nor too small), and methods of course evaluation. Furthermore, students need to be trained and qualified for using AL method, and some classrooms may not be adequately equipped to accommodate activities accompanying AL. These issues are explained in the following sections.

1.1 Course Redesign

The general model of AL was mandated by university administrators, but the task of converting that over-arching philosophy into practice was the responsibility of the teaching staff who had to develop suitable course content and new active-learning materials. The contents included lecture notes presented in PowerPoint slides, participatory class discussions, assignment formats, online quizzes, and any other activities that could be used to promote understanding of topics. Some lecturers explained that they worked collaboratively to modify existing learning materials and to develop new instructional aids. It appeared that this process helped less experienced lecturers avoid pitfalls such as materials that were too brief, too complex, too long, or otherwise inappropriate.

While many participants were generally satisfied with their efforts to redesign both courses and materials, some explained that it was not always clear which topics were suited to particular techniques of AL, and the selection of appropriate parts of the curriculum for active methods entailed careful consideration. However, they did not explain why some subjects are not suitable for AL, which indicates that AL is still in its early stage in the university as there is no consensus between lecturers about which subjects are suitable for AL and which are not.

1.2 Class size

Class size can be a serious issue for lecturers, the discussions and interviews showing that classes that are too large preclude some students from active involvement, while small classes can lack sufficient

stimulating interaction. 57% of the participants revealed that evaluating learners' involvement in active discussions and assignments can require additional time. The participants in the focus group indicated that it was time-consuming to have large groups, with limited scope for meaningful interactions and feedback. They argued for reductions in group sizes in order to maintain better moderation. This view was also expressed by Gibbs (2009) who mentioned to that a large group might have a negative impact on students' overall performance as they need a longer time than does a small group to complete planned activities.

1.3 Course Evaluation

On-going appraisals and reviews are important for the maintenance of educational standards, but how that should be done, and by whom, are points of debate. One useful avenue for improving courses, curricula, teaching materials, and teaching methods is to obtain feedback from students. However, it is telling that the contributing lecturers had not given any consideration to course evaluation.

Neither did any of the administrators use student feedback to evaluate AL courses. It would be expected that a wide variety of factors would be included in any such evaluation; nonetheless, senior administrators of one university merely undertook cursory appraisals of the delivery of the activities by the lecturers, this being performed by some staff observing selected classes, the results then being presented verbally to the Vice-Deans. An assessment meeting in which the Vice-Dean discussed the results of the assessment with the lecturers was observed. She expressed concern at the overall outcomes of some of the AL courses and encouraged lecturers to improve their delivery methods for the learning environment. The meeting provided lecturers with the opportunity to give feedback on their experiences, though it was unclear if that feedback led to any further changes.

2. Learner dependency

One of the much-vaunted benefits of active techniques is that it encourages students to work independently, but not all participants found this to be true. 38% of the lecturers acknowledged the

importance of independent-research and the fostering of the study skills of students, yet in the focus group and the interviews they often stated their concern about their students' limited ability to manage their own learning programmes. Tertiary students everywhere might be influenced by their earlier educational experiences, and most are familiar with teacher-centred environments in their high schools. But at tertiary institutions there is the expectation that students will be responsible for their own learning and participate in AL courses. Several lecturers (28%) were concerned about their students' capacity for disciplined, independent, self-guided learning.

Discussions of AL focused on the positive aspects of implementation, but there can be negative consequences too. Around 25% of participants voiced concern about the disincentive effects of active courses; that is, active techniques can reduce a learner's performance. This effect can be seen when students avoid classes and fail to attend important activities. They added that AL needs more work from students whereas sitting in a lecture is easier and more pleasant than engaging in activities and discussions that require thinking about complex subjects. Furthermore, some students, according to 21% participants, don't think that they need it. This leads to the importance of the training that can be organized prior to commencing with an AL approach

3. Teaching Approaches

Many active techniques can be used according to the subject being taught, most participants expressing positive views about their experiences. Many participants claimed that AL had a positive effect on their students as it raised their performance. Although this claim needs to be investigated and studied as to what extent the AL raised students' performance, many advantages have been noticed from some participants: AL has been adopted for more than six years, it has a positive effect on students' performance, and students who have lower-performing tendencies gain greater benefits. However, not all participants were so enthusiastic. Some lecturers were noticeably uninterested in any new methods; others were undecided, preferring to

continue with the old while making selective use of the new.

Many reasons can be reported as to why some lecturers were not enthusiastic or interested in using AL in their classes. The main problem is the time spent preparing AL lessons, since the preparation time needed to create new AL instructional strategies will often be greater than the preparation time needed to "recycle old lectures". Furthermore, it takes longer to efficiently cover course content. This, according to 35% of participants, was not taken into consideration when implementing AL.

4. Assessment

While 41% of participants were generally positive when describing their experiences of active methods, on the matter of assessment there were misgivings. During the interviews 27% of the participants stated that they were unsure how to assess students who had attended AL classes. Furthermore, 55% of lecturers had problems with the quantity of work that was required to adequately assess a student's level of learning. Some participants mentioned that they give learners a chance to present their thoughts and demonstrate what they have learned. So they can do this by presenting a portfolio of their work and explaining it. This approach gives lecturers an opportunity to evaluate what they've done, and to give learners comments and feedback that they can use in the final documents that they submit a week later. This method of assessment would enhance students' work and therefore their performance. The main issue with such assessment, according to the participants, is the required time to assess a hundred students. Consequently, the university needs to take into consideration the number of students in classes or reduce the number of teaching hours for lecturers. However, 32% of participants reported that lecturers using suitable methods of assessment for AL.

Criticisms and disadvantages of Active Learning

There are a number of challenges, disadvantages and obstacles to the implementation of AL. The discussion above has considered the various positive views and comments of those participants who endorsed AL and who found it to be generally

beneficial to their teaching and to student learning. However, it must be noted here that less than a third of participants were negative and very few were hostile to the approach. Interestingly, the majority of those who do not support implementing AL were from the third university under investigation. This was because that the university has not yet introduced AL as one of its teaching methods. The few participants who support AL implementation, and who were from that institution, were using it based on their prior experience at other venues. That is, some participants from that university had transferred from other institutes where they had already experienced AL. For some lecturers, it represented a methodology that required more effort and preparation than their usual lectures, and others found that it did not enhance the level of learning of their students. There was slight resentment by a few (and by some of the older lecturers, who might have well-established lecturing presentations) that this new system was imposed on them and that they had not been able to contribute in the decision-making process. That is not to say that all people, or all lecturers, are opposed to adopting new systems; rather, it is a recognition that individuals prefer to continue using methods that have worked in the past. Indeed, it was evident from the generally warm tone of the discussions that most contributors seemed to have enjoyed the challenge of trying new technology-based styles of lesson presentation. 20% of participants, however, commented that AL methods did not seem to achieve any noticeable improvements over their former lesson systems.

Discussion

In that the basis of the discussion was the perceptions of the lecturers who have experienced an AL environment, the participants' data was utilised to develop five key comprehensive themes, and this entailed taking account of their understanding of active learning, their insights regarding the advantages and challenges of AL, and the future of active learning. I used these five themes in the discussion in order to clarify the issues that influenced the lecturers' opinions. The main themes which emerge from the data are 'The Concept of Active Learning', 'Implementation and Support',

and 'Active Pedagogy'. The other themes which emerge are 'Evaluation' and 'Development'. The following sections consider these themes.

1. The Concept of Active Learning

AL is relatively new to the university environment of Saudi Arabia, and so the transition to the new form of learning demands a clear understanding of the definition, the principles, the design, methods, and rationale for this new environment. General misunderstandings of the term 'active learning' as used in this enquiry highlighted the importance of having a clear common understanding of the definition. Similarly, some of the challenges faced by the participants were strongly related to the model utilization. Moreover, it emerged that providing a rationale and a justification for AL helps diminish resistance to any new change, and acceptance of a new educational methodology is firmly linked to a clear and unambiguous understanding of the concept of AL. The following sections discuss how the concept of AL involving the definition, the design, and the rationale, have affected lecturers' perceptions.

1.1 Active Learning Definition

The use of the term AL (and the misunderstandings that arose from the use of the term) influenced the acceptance of this new learning strategy. The common definition of AL emphasizes the role of face-to-face instruction as well as close student-student and student-lecturer collaboration, yet this is not self-evident from the term.

The term 'active learning' was not used to describe any educational programme in Saudi institutions until 2010 when Umm AlQura University applied it to several of their courses. An old institution in the West Province of Saudi Arabia, Umm AlQura University has rapidly developed AL for a number of its programmes. This change has been in large measure prompted by its links to international universities who have experience of designing and applying active learning. This uptake of AL methods has been influenced by the work of Fahlberg et al. (2014) who state that AL has a marked advantage because it offers a flexible learning environment. Nevertheless, AL methods are different for each

course and each topic and so it is important for course designers to explain to students what AL would entail and how it would apply to them. Indeed, to avoid confusion and to provide clarity universities need to define AL, to explain its overall objective, and to illustrate how it is applied in specific subjects.

1.2 Active Learning Design

In the institutions examined in this project the designs for AL courses were overseen by the senior management, teaching staff not being consulted. Taking into consideration the shortage of AL designs that can be followed by lecturers (Bahoirth, 2014), the initial selection of a design model by the administration was generally considered acceptable by teaching staff. The researcher endorses the decision and believes that the process of the administrators choosing the design, at least in the preliminary stage, reduced the risk of an inappropriate course design being adopted by inexperienced lecturers. Few participating lecturers had prior knowledge of AL and even fewer had any experience of AL methods. Also, the task of selecting and preparing AL activities can be daunting, something many lecturers are keen to avoid. Consequently, this study confirms that the initial general design model selected by the administration had the benefit of easing the introduction of such a new form of education. It was not definitive, instead offering a flexible model which could be modified to different circumstances and thus allowing more creative teaching. The flexibility of AL design is recognised in many studies as one of its strengths and it has been confirmed as an enhancement to learning. This outcome reflects the results of Zahrani's survey (2012) that the flexibility of the active design allowed the lecturers to achieve course learning objectives more readily within an active course than within a traditional course.

However, using one over-arching design model for all courses affected the participants' perceptions. The outcomes of this study show that the participating lecturers had concerns about the application of AL to some subjects. For instance, the English language lecturers found that the design

model selected by the college was not useful for their courses. They reported on the need for close, on-going interaction with their students in introductory English courses, yet they found that AL reduced the time available for such involvement. This result supports the comments of Joseph et al. (2018) who found that for Masters students at US universities AL was useful only for selected courses. However, it is very likely that the model of AL which was provided to students influenced their opinion. In most models face-to-face time can be devoted to practical activities while class instructions can offer theoretical materials, as in the case of the Metropolitan State University of Minnesota which adopted AL for most of its courses.

One outcome of this project is that AL designs should be modified so as to suit each subject and each topic. That is, the design for AL should take account of the percentage of time for in-class instruction, the elements of AL methodology to be adopted, and the objectives of the course. Nonetheless, in order to retain the advantages of active instruction Andrews et al. (2011) point out that most studies confirm that there is no single 'best' formula for reducing formal class instruction or for increasing AL methods. Moreover, it is evident from the participants' views that the skills and experiences of lecturers influences their views on the criteria for active course design. Also, design flexibility of AL has to be guided by experienced staff to be effective.

1.3 Active Learning Rationale

Globally, universities adopt AL to address numerous challenges, in particular for elevating student performance (Armbruster et al., 2009), and this was certainly the motive for Georgetown University in the US adopting AL methods. This is the justification for Saudi universities doing the same, but in this latter case they face the challenge of a lack of qualified lecturers to deliver AL to large numbers of undergraduate students. As noted, two of universities under investigation in this study had made the decision to use AL despite the initial difficulties of implementation.

Regardless of the evident benefits of AL it is still necessary for administrators to expound its positive features. Garrison and Vaughan (2007) noted that traditional campus-based institutions have long seen the problem of learning in terms of reaching and helping more students, but despite that acknowledgement they have often been slow to embrace change. From their experience, the teaching participants in this research project recognized numerous advantages of AL; for example, enhanced educational development, staff-student interaction, and course flexibility, and these are reflected in the findings of other researchers (Yudko et al., 2008; Vaughan, 2007; Owston et al., 2006; Kaleta et al., 2005). The positive perceptions of the students towards the availability of course materials are similar to that found by other researchers such as Dunlosky et al., (2013), Graham et al. (2005), and Garnham & Kaleta (2002). Indeed, the adoption of a system whereby students can more readily review course-work and communicate with lecturers assists the students to experience a better learning environment.

2. Implementation and Support

Lecturers of this study highlighted the importance of support if AL is to yield a positive AL experience. That is, support for using teaching and learning tools and for employing effective teaching and learning strategies. The perceptions of the participants in regard to the implementation of AL are discussed in the following sub-themes: orientation, support, and training.

2.1 Orientation

In respect of the concept and practices of AL, this study found a low level of knowledge of these among staff in three Saudi higher education institutions. Perhaps the main challenge to be considered in Saudi universities is the adaptation of AL within this conservative culture which has long used a traditional didactic environment. Implementation of AL demands a quite profound re-orientation of courses and methods. The initial phase of implementation entailed the re-orientation of staff attitudes and teaching methods. In one university under investigation, a brief manual explaining how

to use the AL 'tools' was distributed to the students who were new to this system, and staff members of the college were available at times to provide technical assistance. Nevertheless, the results showed that some students did not derive advantage from the support services that were provided, one reason being that some students did not know where to go for assistance. It was apparent that the provision of well-documented guidelines in addition to verbal instructions would facilitate students learning and avoid poor performance, especially in regard to technical problems. This accords with the work of Fahad (2013) who found that students' experience of AL was enhanced when provided with a thorough orientation and a user-friendly virtual learning environment.

Many academics reported that they found the new methods too challenging and too much work, instead preferring to retain their formal lecturing instructional techniques. Regarding the lecturers, a thorough orientation concerning the concept of active learning, learning theories, and technological tools is required. Five lecturers who did not use the AL model declined to participate in the interviews, according to one of the participants, their refusal apparently being an outcome of their inadequate skills rather than a disbelief in the effectiveness of active learning; it was seemingly a way of avoiding the further workload of transferring to active courses. When people do not understand their role in a changing environment they feel that they are losing control and so resist change. However, such resistance may be reduced by showing the advantages of teaching active courses during a thorough orientation.

Another challenge that could be addressed by additional guidance was the lecturers' concern for applying AL within large classes. The participants expressed concern about the number of students to be accommodated in active courses and how they could facilitate and evaluate student engagement and interaction. Consequently, they requested a reduction in the size of classes. However, this contradicts the findings of a Turkish University which argued that a reason for implementing AL was to provide a better learning environment for

large groups of students (Aksit et al., 2016). However, the difference there is that Turkish lecturers were aware of the goal of using AL for large classes, and so their concern was about the choice of methodology; for example, the practicability of incorporating discussions amongst large numbers of students. Furthermore, the participating lecturers in this study viewed this challenge from just one angle because they had a non-flexible course design, with discussions being a compulsory activity for course grades. This situation highlights a key aspect of education that is linked to flexibility in teaching strategies and to the design of active courses. Whether universities adopt AL for reasons of pedagogy or for financial viability, academics have differing opinions - particularly in regard to student numbers. Finally, it is the lecturers who face the task of delivering academic work, not the administrators, so they should have the right to redesign their courses - or at least be involved in the redesign process.

2.2 Support and Training

AL requires on-going support and training for students and lecturers. This study found that providing AL where it has not been implemented before calls for support and training programmes for all concerned. It became apparent that the teachers generally considered that for AL to be effective the students need to become self-motivated, self-disciplined, and independent learners. AL means that the students are not passive – they are the ones who learn by being active, and so it is that students may need to be shown how to take control of their own study programmes. The lecturers identified their lack of IT and teaching skills required to adapt to this new teaching environment.

2.2.1 Student Skills

AL is an approach that stresses that students take responsibility for their own learning. The participating lecturers emphasised that one challenge arose from the poor technical skills of some students and the dependence of those students on others. That high level of dependence was evident in the failure of some students to develop skills and habits of independent study. A few of the students did not

have skills that enabled them to research and compose their projects, instead looking to peers for aid. Though such situations are uncommon, in order to afford equality amongst students it is essential that personal responsibility for independent study be stressed at the commencement of AL courses. This is all the more important because in many Saudi secondary schools the students are fed all the prepared information they need to pass examinations and so are not required to act independently. Moreover, in the modern educational environment IT skills are crucial, and those with poor skills may require special support (at least initially). At present there are some undergraduate students who may not have acquired either study skills or IT skills before entering university. However, as one participant's lecturer commented, while a sad reflection on the current standard of secondary schooling, such scenarios are likely to disappear as more individuals and families acquire home computers and as more schools become better equipped? Indeed, it is expected that computer literacy will in future become mandatory, and the Ministry of Education is committed to offering computer courses and providing infrastructure during pre-university education. Additionally, innovations in educational tools are predicted to be further developed. Therefore, offering students preparatory programmes for AL will provide the required IT skills and knowledge that will suit the future development of active course design.

The findings of this research confirm the results of Gao and Hargis (2010) who noted that students need to improve their technology skills in order to participate fully in AL courses – but the corollary is true too; that is, AL courses strengthen IT skills. These findings are also consistent with the work of Oliver and Herrington (2003) who stress the influence of students' technical skills on their learning experiences and on their level of satisfaction. Oliver and Herrington (2003) assert that an independent learner needs a comparatively high level of technical skills to reduce possible technical problems in the learning experience. In contrast to the results of Giannini-Gachago and Seleka (2005), most of the participating students in their project did

not express any concern regarding the additional time requirements entailed in active learning, for instance the time required for quizzes.

2.2.2 Lecturers' Skills

Active learning relies mainly on the use of modern interactive technologies, and while most participating lecturers had adequate IT skills and were keen to develop them, others were relatively computer illiterate and thus resisted teaching active courses. It was also stated that lecturers with low IT skills were used to relying on assistance from technical support as well as from colleagues. It was really a challenge for them to develop their IT and active skills while teaching such courses, and it emerged that a lack of IT and active skills caused teaching resistance among the participants in this study. This conclusion confirms the outcomes of Bahourth (2014) that perceptions of the relative merits of AL are influenced by the IT skill levels (and the confidence) of lecturers.

The lecturers who conducted courses by AL methods typically reported a rise in the time they spent learning new techniques and skills, and in moderating students in AL environments. Fundamentally, the lecturers of active courses had to devote more time to developing course materials than when they conducted traditional lectures and teacher-based courses. Furthermore, the use of passive digital resources, such as PowerPoint slides, probably affects the experiences and opinions of both students and lecturers in regard to the appropriateness of AL for some themes. PowerPoint may use technology, but it is not interactive and is of limited application in active courses. Consequently, lecturers need to be trained on the appropriate use of presentation tools (such as PowerPoint) and on more advanced courseware tools such as Course Lab. Indeed, training programmes should be on-going in order to stay abreast of the rapid development of educational tools. This accords with the comments of Groff (2013) who stresses the importance of lecturers supporting course redesign and acquiring new teaching and technology skills. Teaching staff may need help to review and redesign their subjects, to define course objectives, develop appropriate activities, and decide what can best be accomplished

in the classroom and how to mix the learning environments.

3. Active Pedagogy

AL as an over-arching educational approach is still relatively new to Saudi higher education institutions. Several institutions have started to provide professional development workshops on active learning, although only a few of them include pedagogical theories, instead most concentrating on introducing AL tools. This situation has been confirmed by Fahad (2013) who pointed out that the theoretical and pedagogical foundation of AL is very rudimentary, with much of the emphasis of the training still being on the technical level. This issue needs further consideration with a better comprehension of how to employ a suitable theory or model of AL within an active pedagogy. This point has been mentioned by Saadeh et al. (2011) who contends that models provide a framework for educational methodologies, and thus they provide a basis for good instructional design and for the development of interactive and efficient coursework.

The participating lecturers viewed AL as a method for boosting the positive effects of teaching and learning, though they did not give much attention to the pedagogical implications. However, the analysis confirms several factors that are related to the pedagogy of AL, such as: course development, the pedagogical challenges of class time constraints, and comprehending the new role of the lecturer and the students.

3.1 Course Development

The process of redesigning courses so that they include AL methods has to be supported by pedagogical principles and suitable frameworks, and these should take account of the objectives of the course curriculum. Determining the suitable activities for course contents is a key step in the course-design process. As the lecturer-participants of this study were required to follow a specified design model determined by their respective college administration, their task in the re-design process was limited to deciding the course content that matched the elements of the design. Zahrani (2012) mentioned that lecturers' support for course re-

design is rather confined to identifying the objectives and outcomes of each course, though they may have limited choice as to methods of delivery. Lecturers have to be aware that students who are surrounded by the digital world are no longer motivated or satisfied by traditional teaching approaches. Another important challenge for today's lecturer is that many students are already sophisticated in communicating through social networks and thus are usually fully aware of what is happening in their university courses and university environment. Lecturers need to appreciate their students' perceptions of class activities and to understand the significance of the shift to student-centred techniques. This study also reflects the views of Froyd and Simpson (2008) and Thomas et al. (2014) that promoting student-centred learning, encouraging independent learning, and maintaining constructive and suitable feedback is a challenge for their students.

In this study, using face-to-face time for lecturing without enough discussion was one of the reasons for diminished student engagement in class time. The use of discussions in face-to-face class time during active courses was observed as an important factor for the design of active courses (Eddy et al., 2015). It is hoped that the future development of active course design would include this method as a means of elevating student motivation and engagement during class time.

Furthermore, the lack of published syllabi and rubrics has been recognised as a negative influence on students. A curriculum or syllabus is a statement of the contents of a course (or subject), and a rubric is an example (or sample) of a piece of work. By providing both these a student can have a good idea of what a course is about and what is expected of him/her; and conversely, in the absence of a syllabus or rubric the student is ignorant of the course, its content, and its standards. However, course outlines were not provided by most of the lecturers, and rubrics are not common in the Saudi traditional learning environment. Likewise, methods of assessment were not always clearly explained at the commencement of each course, and discussion as an assessment tool was not favoured by most of the

students, who perceived it to be too subjective and vague.

3.2 Lecturers' Roles

One of the serious challenges that has been encountered in this study is the need to define the new role of the lecturer in active courses. Lecturers of active courses have to negotiate the shift from a lecturer-centred to a student-centred environment, and in so doing to encourage interaction and cooperation between peers. Since high engagement and motivation are signs of a fruitful learning process (Dislen, 2013), the lecturers need to identify what it means to be a facilitator to encourage student engagement.

Pedagogy entails processes of change, and that includes changing the lecturers' role to one focussing on student learning. This was one of the challenges described by the participating lecturers, a point emphasized by Brame (2015), who commented that the practice of AL is not as simple as the concept may imply. The way of teaching in Saudi Arabia used to be, and still is to some extent, focused on the traditional way of teaching. It doesn't give consideration to the importance of the discussion and conversation between teachers and students to enrich students' knowledge and experience.

The pedagogy of the teaching of thinking skills needs a new role for the lecturers. It was perhaps the lack of experience in active teaching that affected the lecturers' capability to identify their new role. The role of the lecturers in active courses includes using strategies that encourage interaction in learning, providing feedback to students, integrating face-to-face instruction with active instruction and evaluating the instructional strategies based on students' views.

The lecturers expressed their positive perception of using active discussion as a tool for facilitating communication and interaction. Yet, interactions that facilitate significant thinking and reflection were seldom experienced in this study. This is affected by the traditional Saudi educational method in which knowledge is offered in a one-way system from lecturer to students. Freire calls this "the

banking model of education” (Freire, 1970). This reflects several Saudi research results (Mahri, 2017; Youssef, 2016) which show that there is a lack of adequate guidance and feedback to students in traditional teaching. Converting from a lecturer-centred strategy to a student-centred strategy needs lecturers to identify their new role in developing skills for critical thinking by enhancing dialogue in education. Adding to the work of Greatbatch and Holland (2016), it is the quality and value of interactions that affect the worth of the learning experience in higher education. Active discussion can efficiently support learning when lecturers offer regular feedback and when students share new ideas. Nevertheless, lack of feedback affected the students’ view of their discussion experiences. A preferable practice in the teaching of active courses would entail enhancing critical thinking and facilitating collaborative learning, a point stressed by Nkhoma et al. (2017).

In the AL environment, students are expected to accept a new role as independent learners but being an independent learner does not imply solitary study; rather it involves engagement, participation, and collaborative activities. The challenge that the participating lecturers faced was how to assist students to comprehend and embrace their new role in the AL environment and to address any resistance. In particular, the re-designed pedagogy accepted by the lecturers has a strong influence on how students play their role in the AL setting. For instance, when lecturers posted specific themes for the mandatory discussion they were criticized by the students as the themes were limited in scope and did not encourage students to express different views. The students’ responses and interactions were of the same kind and yielded little feedback from the lecturers, leading to diminished motivation among students because of reduced interactions. The lecturers were responsible for designing the learning activities (for example, choosing the themes of the discussions), encouraging students play an active role in this dialogic activity. From a pedagogical standpoint, Conole (2008) has pointed out that designing learning activities is important to a more efficient use of technologies. Furthermore, a

participatory method could be employed to develop motivation and collaborative learning. The use of participatory methods lets students decide about their own learning (Somaya, 2017) and share knowledge and experiences. Indeed, in AL, one role of the lecturer is to act as a facilitator – that is, one who does not provide the answers but who guides learners to discover results and make their own conclusions. An individual who makes his/her own discoveries is more likely to learn and remember the issue and the topic. Allen et al. (2002) emphasise that the success of the participatory method is affected by the cultural context. Participation does not take place in a vacuum, but its growth and progress will be affected by a diversity of factors inherent in the context (p. 46). Allen et al. (2002) show that the participatory method helps learners to socially construct their knowledge, and that, in turn, may lead to enhanced understanding and to changes in behaviour.

The application of AL concerns not just the way in which lecturers teach; it entails a fundamental shift in the behaviour of students and the ways in which they learn. Changing learners’ behaviours was a challenge recognised in this study, and this was probably an undesirable outcome of the experience of the prior teacher-centred strategy in which students are ‘passive’ learners. For instance, four of the lecturers used the participatory method in the discussion. Students were able to select to participate or not in a bonus discussion and could select the theme for discussion. This caused a number of posts by students, but the feedback from their lecturers and the student-student communication was very poor. Because of a lack of effective dialogue, some students showed that there was a reduction in their motivation. This conclusion highlights the core of the lecturer’s role as a facilitator to boost students’ engagement and motivation.

4. Evaluation and Quality of Learning

Evaluation that is founded on lecturers’ experiences would generally lead to elevated educational outcomes. Supporting this opinion, Al Atef (2013) assert that AL models should be developed

according to local, community, social, and organizational demands.

4.1 Feedback

Giving and receiving of feedback is a core element of modern education, and certainly a feature of AL. A quality experience for students is an aim of most institutions and universities. Most universities examine students' learning experiences (Kandiko & Mawer, 2013) and their feedback is the major data source for quality affirmation processes relating to teaching. In Saudi Arabia, the three universities under investigation now ask students to complete course evaluations as part of lecturers' assessments. For example, in 2009, King Saud University (and in 2010, Umm Al Qura University) commenced issuing evaluation forms to students. Though lecturers are allowed to access the reports, there is as yet no sign that the lecturers use these evaluations to improve their courses. Hence, in future there have to be well-organized strategies by which the evaluations can be translated into improved methods and standards of teaching.

Furthermore, lecturers' performance in the new environment is now being evaluated by the administration. Feedback from lecturers about their experiences and about the challenges they encounter are provided each semester. Apparently, these have yielded positive responses from the administration in regard to the use of AL by lecturers. Administrators have incorporated lecturers' feedback on training packages that they provide in workshops and training sessions, which has encouraged lecturers to accept AL implementation.

The lecturers' experiences confirm the findings of Lionarakis and Papademetriou (2003) who demonstrate that in addition to the work of the lecturer, the quality of the learning experience in education is strongly shaped by the nature and level of administrative support. Regular evaluation using students' and lecturers' feedback helps in refining each programme and in elevating the quality of the learning. Saudi higher education institutions have recently been working on regular assessment of student and lecturer satisfaction as the best strategy to explore learning efficiency and to confirm the on-

going improvement in the standard and quality of instruction being provided (Saudi higher education website) .

4.2 Development

AL includes independent learning, which calls for high level practical skills (Scott, 2015) and the ability to use new tools such as social networks that promote interaction and collaboration and reduce isolation. Thus, continuous development of tools and activities used in AL would meet the 'Net' generation's expectations. Simultaneously, lecturers need to be capable of handling possible challenges (such as technology failures), to comprehend the role of facilitation, and to make greater use of student-lecturer interactions. All of these functions are needed to help in developing AL programmes and to confirm quality of learning.

So far there is a general absence of policies or guidelines for active learning, yet such documents are vital for assisting teachers to comprehend what is expected from them in the new environment. The implementation and future development of AL requires lecturers themselves to be taught, and for this reason the researcher proposes the establishment of an AL Centre that would help and approve active methods and course designs that could be adopted by teaching staff. Such a centre could provide criteria for the design of active courses and for advising teachers about aspects of AL. This study suggests that an AL pedagogical model is needed, one that could be adapted according to the needs of each lecturer and each course. The following section debates the proposed AL model as a contribution to the research of active learning.

Active Learning Model

Implementing AL in an educational environment that has depended on a traditional didactic system requires careful strategies. This study explored the first implementation of an AL programme in Saudi universities and found five themes that were derived from the experience of students and lecturers. These themes are vital factors in formulating an AL model that can be utilized in other Saudi institutions, especially at a programme level. The final objective of the model is to summarise the factors that affect

the implementation of active learning. This model can be deemed as a contribution to research in the area of AL as it includes the key elements of a theory founded on descriptions and explanations (Cattaneo, 2017). The elements are: the factors that shape this theory, the ways in which these factors are linked, the reasons the factors are suggested with this relationship, and the limits of generalizability. Figure 6.1 (below) demonstrates how these five factors comprise a model for AL implementation and the connections between them. For instance, the

active concept is the key factor that reinforces all of the other factors. The implementation of, and support for, AL are affected by that concept and, in turn, have an influence on the other factors. Next are the factors that influence active pedagogy and evaluation and development which are reinforced by the concept and the implementation. Finally, evaluation and development factors are affected by all of the factors starting from the active concept up to the active pedagogy.

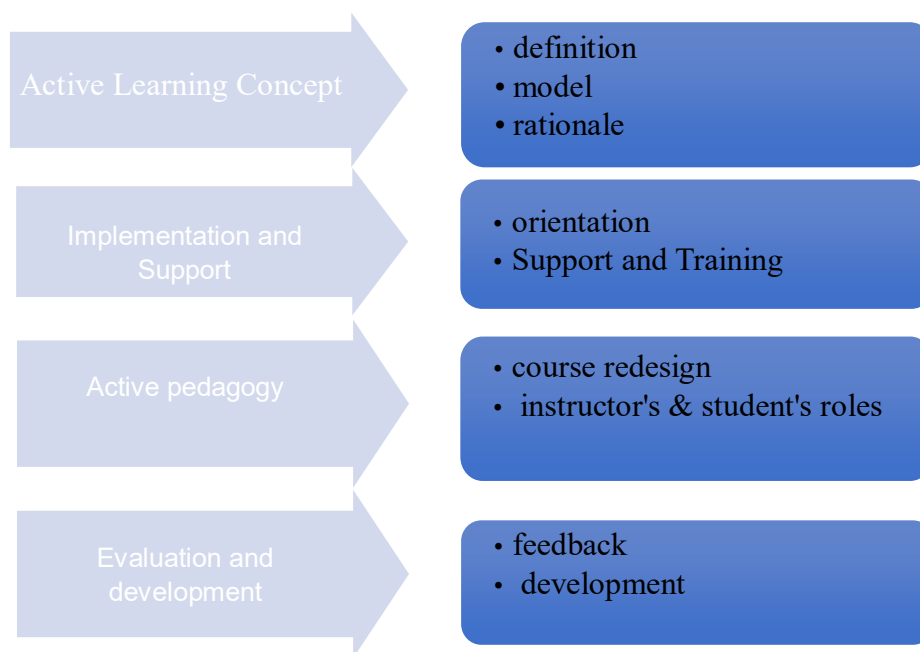


Figure 2: Active Learning Model

Conclusion

This study shows that AL can be implemented effectively into tertiary institutions in Saudi Arabia, though to do so will entail taking account of the challenging issues identified here. Policies and procedures relating to AL need to be defined and made available to staff, and particular attention needs to be devoted to both pre-service and on-going staff training. Similarly, the task of advising students about the use of AL in their courses must be addressed; for students familiar with traditional teacher-centred lessons the use of AL methods can be concerning. Lastly, in response to the data that have been collected and analysed, this study presents a learning model composed of five themes. The themes propose steps which should be applied in the process of implementation, and the AL model

identifies and lists the factors that affect the implementation of AL in Saudi universities.

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