

## Female postgraduate students' perceptions of active learning methods

**Dr. Amel Thafer Alshehry**

Najran University, Najran, Kingdom of Saudi Arabia

### Abstract

The purpose of this study was to determine the perceptions of postgraduate students' on active learning at a university after taking a "Glossaries in Curriculum and Instruction" course in the master's program. The views of the eight master students were based on responses to questions administered. This study used the semi-structured interview with open-ended techniques for data collection. The interview form consisted of four open-ended questions. Based on data analysis, students reported that active learning support from individual learning increased their self-efficacy and confidence in studying and learning on their own, enabling them to investigate with greater confidence.

**Keyword:** postgraduate, interactive learning, thinking skills, curriculum instructions.

### Introduction

The aim of the study was to explore the learning experience and attitudes of graduate students toward self-efficacy by using a small case study project as an assessment process to enable students to interact, promoting greater self-dependence and learning, skills needed to activated students active learning more appropriately. With the development of new teaching strategies, different concepts related to teaching and learning have entered into educational terminology (Emlek et al, 2017). Some of these concepts can be categorized as self-efficacy or active learning. The use of teaching methods by lecturers is based on aspirations of higher education institutions to be student-centered. Here, these methods were developed to broaden students' skills during their master's program to further embed informational content and influence teaching and learning objectives, further enabling students' methods of searching for resources and information related to their subjects. These methods were used to strengthen higher education in Saudi Arabia through self-confidence, efficacy, and interaction, which have previously been found to affect educational practices for postgraduate teaching qualifications (Badghish, 2016). Using of visual aids during the teaching and learning were supported by the instructional technologies, that facilitate learning when they are designed to help the postgraduate learners to select, integrate and organize learning experiences and information to strongly designed a meaningful interaction and enhance learning (Mayer, 2001).

This exploration has the potential to promote new learning systems regarding how e-learning resources and facilities supported their learning and identify obstacles related to self-learning resources that hinder students learning (Pathak & Rahman, 2013). For the purpose of this study, self-learning and presented resources outside of the classroom provided nowadays

such as supported multimedia and instructional technologies that were compared to available higher educational materials that allowed readers to navigate content utilizing embedded features and search for external resources and multimedia objects.

A theoretical lens consisting of supporting learning theories, self-independent, and informational processes related to the constructive learning approach was used to analyze the results and provide insight on the students' learning experience. This study also showed how these methods enhanced the students' motivation and confidence in learning.

Teaching masters students is not about applying rules and traditional teaching procedures; rather, it is about engaging students as active participants through discussion and collaboration in teaching and learning.

### **Literature Review**

In this type of learning process, students combine cooperative learning with their teachers to promote deep understanding (Henson and Eller, 2012). In addition, learning how to search promotes personal growth. Students can achieve better grades in subjects that require critical thinking and can achieve an integrated, self-dependent process (Shimazoa and Aldrich, 2010). Hannafin and Land (1997) found that students could learn how to learn and allow interaction to become integrated into their learning approaches.

#### ***Successful active learning approach among higher education***

To achieve an affective learning process in teaching in educational institutions, students should be given opportunities to communicate, interact, and develop self-confidence. Bonwell and Eison (1991) defined active learning as "instructional strategies, including [a] wide range of activities that share the common elements of involving students in doing things and thinking about the things they are doing."

However, one of the ways this can be done is through interactive learning in which students become "more engaged and retain more materials, with or without a form of technology, interactive learning helps students strengthen problem solving and critical thinking skills"(Hatten, 2017).

Many studies have shown that interactive learning can improve students' performance over time and can increase positive attitudes toward learning, self-efficacy, and social skills. Additional opportunities should be provided for discussion, problems-solving, creating solutions, and working with peers. Several educators in the field of teaching have conducted studies using interactive learning and have found an increase in student achievement (Tarim, 2009).

Self-reliance, efficacy, and confidence with creativity are considered the main components of mental activity. Often, most activation processes among students are reduced either in an attempt to transfer the same information through training aids, computer information, and capabilities of the mind. Interactive learning also enables them to search for sources of knowledge (Panina and Vavilova, 2008).

#### ***Instructional technology supporting aids for learning skills***

Learning for postgraduate students should promote dialogue with their teachers and other participants in the pedagogical process and promote active participation in cognitive activities, creativity, and search. Graduate students' need to reveal this status of creative opportunities by using of instructional technology in their courses and study program to support and foster their knowledge and experiences in the higher education (Jahnke et al, 2017). Interaction of students in carrying out tasks in pairs and groups can help promote these skills. Khanin (2013) found that these methods could strengthen problem-based training, self-study, and acquiring necessary skills, such as using of computers program (power point), social analytical, practical, and communicative methods (Zaiton, 2004). In the way of enhancing practicing active learning

process among postgraduate studies, Smirnov (1995) stated that "for new and higher forms of motivation [one should arm] students with new and more effective means...to realize their goals of [mastering] new activities, knowledge and skills" (p. 271). Thus, this kind of learning can provide students with more opportunities to develop their higher-order thinking and increase engagement between students and teachers, students and content, and students and facilitators (Kutbiddinova, 2015).

### ***Interactive learning versus traditional learning process***

Active learning approaches breaks down and reduces traditional learning barriers to create a communicative and collegial atmosphere in the classroom, which allows for successful and active learning (Revell and Wainwright, 2009). Therefore, using of active learning enhanced the using of communications and multimedia through the learning process which raised a new concepts of teaching and learning strategies with a flexible educational program (Emlek et al, 2017).

Interactive methods of learning and training promotes students' active participation in an educational activity that simulates professional situations and engages students to develop strategies for effective behavior in conflict situations (Eromasova, 2014).

### **Study Purpose**

The purpose of the study in the using of theoretical framework was to determine the views of 2<sup>nd</sup> year master students at Najran University who took a programming course designed for postgraduate students. To this end, answers were sought to the research questions below:

- 1) What are your attitudes regarding the benefits of interactive process in students' learning?
- 2) What are your attitudes toward the means of communication associated with instructions and interaction?
- 3) What are your views toward the differences and similarities between the traditions teaching methods used for you learning program?

### **Methodology**

#### *Theoretical framework*

Qualitative research methods were used multiple methods in this descriptive study so that the researcher could develop a deeper understanding of findings based on the participants' views (Creswell, 2013). Qualitative data collection instruments, such as one-on-one interviews, students observation, and written analysis, were used so the data could be collected in a triangulation and a realistic manner. In this techniques used of triangulation, the researcher ensure that an account is rich, comprehensive and well-developed.

During qualitative research interviews, it is important to be sensitive to the natural environment as the researcher acts as a participant, revealing personal perceptions and providing flexibility in research design. The data was categorized under a multiple themes, three of which associated with the designed advantages of using interactive learning process, communication and instructional technologies and new methods approaches with the interactive learning.

### **Data collection**

This study used a semi-structured interview form. The past experiences of the researcher and the views of the educational experts working in the field of educational science were taken into consideration to prepare the interview form. Draft questions were reviewed by the experts for any necessary changes based on their feedback. Three main interview questions were created with breaking down questions depending on their rich of information to their response. The samples were distributed to ten postgraduate students in one level which were the second level

who had taken the postgraduate masters programming course. The interview forms were collected from students and presented to them in case they had information to add or delete. Some of the responses were incorporated into the data collection and analysis (Wolcott, 1990). Therefore, the researcher found the various interpretation of responses according to the main categories of theoretical framework provided.

### **Data analysis**

The data collected for this study were analyzed using descriptive analysis techniques and were interpreted on the basis of previously determined themes, which were coded by the responses to the research questions. Data can also be presented by taking into account the questions on each of the dimensions used during observation (Yildirim and Simsek, 2004). Themes in this course were created for analyses and a comparison was made between various meanings in the responses to the questions. In this case, an attempt was made to obtain more detailed and in depth information from the qualitative analysis (Creswell, 2013).

In this case, the interview data was analysed by reading the written note, organizing the data classifying the subcategories, grouping a common and similar treatments to construct thematic categories, and making interpretations. Important segments in the transcription were determined based on the literature review and theoretical framework. Therefore, this study trustworthiness was strengthened by the application of triangulation, member check and peer observation (Merriam, 2009).

### **Results**

All participants' statements were compared and coded into forty categories by grouping statements that participants shared in common. Subsequently, these categories were grouped under four major thematic categories related to research questions. These thematic categories pertained to the interactive learning approach and were determined in accordance with the learning theories discussed in the literature, such as the teaching process used, students' independence, and interactive learning, and a comparison of active learning versus traditional teaching methods.

This study, however, uncovered three correspondent subcategories, which were established from the interviews and grouped to represent the major thematic categories. Table 1 delineates the corresponding subcategories which were established the interview data and how they were grouped and represent the three major thematic categories. These categorizations of students' insights into these categories yielded three themes as follows:

- 1) Developing a usefulness and positive way of practicing interactive learning
- 2) Interactive use of instructional technology to ease the communication with teachers and students colleagues
- 3) Better understanding compared to traditional methods among thematic categories and corresponding subcategories

All ten participants stated that interactive learning provided them with valuable opportunities to obtain skills and experience and enabled them to construct their own understanding and learning.

**Table 1. Thematic categories and corresponding subcategories**

Categories	Subcategories
Active learning process	<ul style="list-style-type: none"> <li>- More self-learning opportunities</li> <li>- Self-efficacy &amp; effective chances</li> <li>- confidence</li> </ul>
Successful instructional technology and communication	<ul style="list-style-type: none"> <li>- technological experiences and skills</li> <li>- sharing e-learning process</li> <li>- understanding through social interactions</li> </ul>
Differentiated between present active learning and method used before	<ul style="list-style-type: none"> <li>- advanced search features</li> <li>- learning of multimedia</li> <li>- Sharing experiences and knowledge</li> </ul>

### ***Effectiveness of the interactive learning process***

Student S1 stated, "I like the process the teacher [provided] us. I can [use this method to study based on] what I learned." Another student also said, "[The] process of doing small projects by searching for...resources of related subjects...provided me with more learning [opportunities so] I can learn how to access and search at any time."

"I learned how to prepare my reading [and] writing to do a presentation on what I searched for," said S5.

Students S3, S4, and S7 also stated that "This process draws [in] our attention more since the teachers [provided] us with...different teaching techniques;" Student 6 was encouraged that "This [method] is more suitable for us as postgraduate students who need to search, interact, [and develop] independent [skills] regarding the learning process".

Student 5 said, "It would be easier...to learn difficult issues regarding...subjects...using this [method] of learning [to] contribute to...[a] field that is difficult to understand." S6 pointed out, "It enabled me...to search for...reading references and [enabled] me to [follow] the way the teachers teach to get more experience, in both [the] searching and teaching process...I could [understand] how...teachers prepare their lectures and search for the information they need for their students." Student S5 emphasized this that "The lecturer [provided]...us [with] encouragement and guidance...to learn better."

### ***Communication of using of instructional technology***

All ten participants were believed that a useful and better communicating skills were showed after practicing an interactive teaching methods. S3 stated that, "using...multimedia [materials] during...studying helps...introduce [us] to the new way of teaching and learning by doing." S6 said, "I could use graphics and other visual aids during my preparation for the presentation of the research project." S2 pointed out instead that "It provides...better understanding, cooperation, and interaction between us and our teacher during the presentation of the work in the classroom which facilitated learning while we work and present [the] work;" S6 noted, "It also helps us find...other resources...than in...class studying."

When asked "Have you ever searched for additional resources while you worked on materials related to your subject?," all participants said they had. S5 said, "Yes sure, I have searched for related references, visual supplies, and additional technology that were very helpful [in] facilitating the content we need and I have searched for additional resources too."

S4 provided a similar response: "I look through the internet for...additional information that often ends up [being] very helpful [so that I] use my time more effectively." S3 stated, "It motivated me to learn and [increased my] willingness to [exert] more effort on understanding the content."

S1 said, "This assessment [taught] me [to use] key word searching, write notes, and share various ways of using of these multimedia and communication features."

### ***Traditional methods***

This response provided data for the fourth research question regarding the differences between traditional methods of teaching and interactive learning. Most students felt more confident. S7: *"We feel more confident and comfortable [when] we [were given] a chance to learn by ourselves [by] searching, interacting, and sharing information."*

S2 also said, *"Interactive learning makes me...more confident and comfortable; I believe that the use of search capabilities enhances my learning opportunities in a new way."*

S5 added, *"I believe that these searching capabilities empower my learning as compared [to when] we get the instructions only during the lectures, which...limits ...time, content of subjects, and the teachers as a presenter of the information."*

S6: *"The use of these active learning elements contributed to [understanding a subject that it difficult to understand which creates a new way of discovering information [independently]."*

Another participant, S4, said, *"This process would draw the attention of student understanding [because] the teacher applied it with different teaching techniques."* S3: *"Most importantly, the process makes us more active in...learning environments [than the process] used previously."*

S7 also said, *"I could integrate my knowledge and understanding more about the subject."* One other student also noted, *"We would like to suggest this way of learning [for our] future rather than teaching with...traditional methods...[because] teaching [a] subject in an entertaining manner will facilitate our learning."*

### **Discussion**

It was thought that interactive learning might replace a useful way of learning strategies among students where recalling their previous experiences of practicing interaction of instructions upon their reaching. The majority of the participants reflected it in their positive experiences. They indicated that interactive learning process enhance the learning and providing them with a flexible, confident, shareable and enjoyable use of learning instructions. All participants addressed the advantages of interactive learning to obtain information and construct their own understanding with a greater chance to exchange knowledge and skills of new tools that students used that are different from each other than with a traditional method. According to the responses, active learning allowed them to search their own resources of practices and present their creative work independently with self-learning with the using of technologies devices that develop students understanding of learning experiences than older and traditional methods used before. In accordance with results of this study, the use of interactive learning for postgraduate students has resulted in higher achievement than traditional teaching approaches (Kutbiddinova, 2015), possibly due to the students' involvement in exploring the way they understand their curriculum, which provided them a chance to work with active learning strategies. This study is consistent with other study who strongly enhance the creative program for the postgraduate students' to support and foster the higher education positively and successfully (Jahnek et al, 2017, Hutchings, 2017).

According to the perceptions of the participants, practicing the active learning processes provides students with more space and opportunities to interact, discuss, self-teach, and learn, providing discussion with each other's ideas as previous study of this case provided internationally (Tarim, 1997; Revell and Wainwright, 2009; Bonwell and Eison, 1995). There is a strong need for changing the way the postgraduates taught and learned to enable them to convey a new path of learning their required courses and instructions. Further, the finding of the way of instructional technologies used is equal with studies reviewed before in the case of the better using of than traditional methods used before (Alhammad, 2016 & Alshehry, 2009).

This study shows that traditional teaching methods are more teacher based, therefore, less chances are given to students to discuss, present their opinions, and work with peers. However, Allen and Seaman (2010) and Zaiton (2004) showed that students' learning requires the use of educational technology to enhance self-learning and alternative learning methods encourages research. Furthermore, it emphasizes independent learning, which mostly likely increases self-confidence in learning.

### ***Attitudes toward effective learning***

The new learning method emphasizes greater social interaction and relationships among groups of students and their classmates. These findings are consistent with the findings of previous studies (Bonwell and Eison, 1995; Hatten, 2017) and could be discussed in light of important issues regarding students' learning approaches consistent with the studies of Tarim (2009) and Hannafin and Land (1997), indicating that students need to learn how to learn, which places interaction and self-efficacy at the center of learning. This approach guides students critical and creative thinking and the learning environment supports constructive learning.

### ***Attitudes toward the use of communication***

This study is in agreement with other studies such as (Mayer, 2001; Jahnke et al, 2017 and Kutbiddinova, 2015), which found that searching for resources outside of the classroom allows students to use technological learning and search skills as they use several resources and tools they will need in the future while pursuing their doctorate (Alshehry, 2009; Eromasova, 2014). All ten participants indicated that using instructional computing technology gave them a valuable opportunities to obtain an information at a time convenient and then construct their understanding with more advantages (Emlek et al., 2017).

### ***Attitudes toward the use of nontraditional methods***

In this study, methods were used to support students and were centered on them, implementing an active learning method to improve educational quality. Overall, the study recommends that methods of teaching that teachers used previously with their students' needs to change upon students' perceptions of learning practices, this were supported by the study practices of Alshehry, 2009 which were applied on the academic staff of science colleges.

## **Conclusions**

In conclusion, this study indicates that student-centered learning had a positive effect on students and provided them with an active, investigative, and exploring role, increasing students' high-order cognitive activities. It improved self-confidence by providing them with a web environment and active learning to enable them to use their critical thinking skills more extensively and gave them a greater opportunity for reflection and discussion in learning environments.

The majority of students' responses to the interview questions indicated their use of the active learning method, which included advanced search features, self-effective interaction, and active ability. However, this study contributed knowledge on students views on their learning process as a postgraduate students.

Finally, limitations to the study were that the study focused on the postgraduate students' preparations. It would be beneficial to consider the views of course instructors on the use of the interactive learning approach. It is more appropriate if further studies in the future were done on the academic member of post graduate studies perceptions and attitudes.

## References

- Allen, E., and Seaman, J. (2010). *Learning on demand: Online education in the United States, 2009*. Needham, Mass.: Sloan-C.
- Alshehry, A. T. (2009). *Perceptions of science education for girls in Saudi Arabia higher education: a case study of female biology teachers*. PhD Thesis, University of Nottingham, United Kingdom.
- Badghish, S. (2016). Measuring values importance of Saudi consumer. *International Journal of Marketing Studies*, 8 (6), 116-127.
- Bonwell, C. C., and Eison, J. A. (1991). *Active learning: creating excitement in the classroom*. Washington.
- Creswell, J. W., (2013). *Research design: qualitative, quantitative, and mixed methods approaches*. Sage publication, London.
- Emlek, B. and Akturk, A. O. (2017). Student views with regard to the web-based problem solving method. *International Journal of Research in Education and Science*, 3 (1), 180-192.
- Eromasova, A.A., 2014. A fragment of the research activity of students (based on the materials of study of the image of hero). *Proceedings of the Institute of Continuous Professional Education*, 3(3): 124-129.
- Hannfin. M, J., and Land, S.M., (1997). The foundations and assumptions of technology-enhanced student-centered learning environments. *Instructional Science*, 25, (3), 167–202.
- Hatten, L. (2017). *What is interactive learning? Overview and Tools*. [Http://study.com/academy/lesson/what-is-interactive-learning-overview-tools.html](http://study.com/academy/lesson/what-is-interactive-learning-overview-tools.html) cited in chapter 3 lesson 22.
- Henson K. & Eller B. (2012). *Educational psychology for effective teaching*: 2nd edition, Kendall Hunt Publishing co., 5-10.
- Hutchings, M. (2017). Improving doctoral support through group supervision: analysing face-to-face and technology-mediated strategies for nurturing and sustaining scholarship. *Studies in Higher Education*, 42 (3), 533-550.
- Jahnke, I., Haertel, T. and Wildt, J., (2017). Teachers' conceptions of student creativity in higher education. *Innovations in Education and Teaching International*, 54, (1), 87–95.
- Kanin, S.V., 2013. Using the case method as a method of interactive training in teaching the course "History of the internal affairs authorities". *Bulletin of the Nizhny Novgorod Academy of the Ministry of Internal Affairs of Russia*, 24, 177-180.
- Kutbiddinova, R.A., (2015). Activation of educational activity of students through interactive methods. *Bulletin of the University*, 3, 210-214.
- Mayer, E. R (2001). *The promise of multimedia learning*. Cambridge, England: Cambridge University Bridge.
- Merriam, S. B., (2009). *Qualitative Research: a guide to design and interpretation (2<sup>nd</sup>)*. San Francisco, CA: Jossey-Bass.
- Pannina, T.S and L.N. Vavilova, 2008. *Modern methods of activization of training*. Moscow, Academy.
- Pathak, T. & Rahman, A. (2013). Perception of Students and Teachers towards Semester System: A Study in Some Selected Degree Colleges in Nagaon town of Nagaon District of Assam. *Journal of Education and Practice*, 4 (1), 84-91.
- Revell A., and Wainwright, E. (2009). What Makes Lectures 'Unmissable'? Insights into Teaching Excellence and Active Learning. *Journal of Geography in Higher Education*, 33 (2), 209-223.
- Shimazoe, J. and Aldrich H. ( 2010). *Group work can be gratifying: Understanding and overcoming resistance to cooperative learning*. *Coll. Teach.*, 58: 52-57. DOI: 10.1080/ 87567550903418594.
- Simsek, H. and Yıldırım, A. (2004). *Turkey: innovation and tradition*. In: I. Rothberg, ed.
- Smirnov, S.D., (1995). *Pedagogy and psychology of higher education: from activity to personality. Study guide for the students of the departments and institutes of advanced training of higher education teachers and graduate students*. Moscow: Aspekt Press, 271.



- Tarim, K., (2009). The effects of cooperative learning on preschoolers' mathematics problem solving ability. *Educational Studies in Mathematics*, 72, 325-340.
- Wolcott, H., (1990). *Transforming Qualitative Data: Description, Analysis, and Interpretation*. Sage publication, London.
- Zaiton, A. (2004). *Methods of Teaching Science*. Amman: Shorok publication.

## Appendix

- 1) What are your attitudes regarding the benefits of interactive learning?
  - How these active learning approach would enhance you self-learning?
- 2) What are your attitudes regarding the skills you developed using interactive learning?
  - How students' could interact according to their knowledge and background of learning?
- 3) What are your attitudes regarding how interactive learning affects self-learning?
  - How do think the way of you learning skills are enough for their interactive learning?
- 4) What are your attitudes toward the means of communication associated with instructions and interaction?
  - How you find the way you use the instructional technology tools interesting for you learning?
- 5) What are your views toward the differences and similarities between teaching methods in the course?
  - How you think the opportunities of active learning process are useful that traditional methods approaches?