

# **The Effects of Experiential Learning Style at Higher Education Level: Teachers' Perspective**

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## **Abstract**

*This qualitative research investigated learning styles at higher educational level in the outlook of experiential learning and learning ability of students from the perspective of university teachers in Karachi Pakistan. Literature reported unique individuals were merged in common classrooms of modern system at higher education level. These adult students from diverse socio economic background felt difficulty to comply with style of teaching being commonly practiced in their higher education. Six interviews were conducted from the teachers of public sector universities in Karachi. The results of the study revealed that in higher education students were engaged in diverse range of approaches related to experimentation, reflective observation and concrete experiences; however, abstract conceptualization was missing approach in the outlook of Experiential Learning Model (ELM). This research suggested the use of higher-order thinking activities such as model critiquing, making analogies and writing papers in order to connect abstract conceptualization with other three modes of ELM.*

**Keywords:** Learning Styles, Higher education, Experiential Learning Style.

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## Background of the Problem

This research investigated about the different learning styles commonly found among the graduate students from the perspective of University teachers and how experiential learning model can help graduate students in increasing their learning abilities at higher educational level in Karachi, Pakistan.

Several theorists<sup>1</sup> contributed regarding the learning differences and understanding of how learning generally occurs among adults. However, these theories were unable to reveal what made the identical instructions effective for some students and ineffective for others. Learning style is “the way in which each learner begins to concentrate on process, and retain new and difficult information”<sup>2</sup> ( p. 2). Almasa, Parilah & Fauziah<sup>3</sup> argued in a research that “When the learning styles of learners do not match the teachers’ teaching styles, learner may get uninterested or pay less attention while the lecture is being delivered, this caused underprivileged grades and lead to indifference in the learning process.” This study investigated about the continuum of mismatch between teaching and learning styles with reference to experiential learning model from the perspective of teachers serving at higher education level in Karachi, Pakistan.

## Research Questions

- What are the perspectives of teachers about the effects of Experiential Learning on the learning abilities of the students at higher education level in Karachi, Pakistan?
- What are the advantages of Experiential learning model from the perspective of teachers at higher education in Karachi, Pakistan?

## Significance of the Problem

A limited review of literature revealed that no research on experiential learning from the perspective of teachers at higher education level was

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<sup>1</sup> Such as (Cronbach 1957; Glasser 1966; and Skinner 1983)

<sup>2</sup> Nikki Shoemaker, Stephen F. & Marie Kelly. "How college Business students learn with emphasis on differences between majors." *Journal of College Teaching and Learning*, 2015: 223 - 230.

<sup>3</sup> Almasa, Parilah & Fauziah. "Perceptual learning styles of ESL Students." *European Journal of Social Sciences*, 2009: 102.

carried out in the context of Karachi, Pakistan. In addition, this research may be helpful in exploring the difference between teachers' teaching style and students' learning style in an outlook of Experiential Learning Model (ELM) as proposed by Kolb<sup>4</sup> for the development of the learning abilities among graduate students in the higher education in Karachi, Pakistan.

## Review of Related Literature

"Adult learning tasks be experientially based, be age appropriate, provide choices in the organization of learning programs, and be centred around adults."<sup>5</sup> Guzman<sup>6</sup> in the perspective of CAL (Model of Adult Learning) stated that situational and personal characteristics highly influenced not only what was being learned, but also how it was learned.

Yamazaki (n.d.) referred Knowles<sup>7</sup> in a research study and stated that learning style provided an understanding to the teachers about how adult individuals learn through successful pedagogical program at higher educational level. "Individuals consistencies in perception, memory, thinking and judgement across any stimulus condition" during a teaching and learning processes at higher education<sup>8</sup>. Hussain<sup>9</sup> cited Smith and Dalton<sup>10</sup> in a research study about defining learning styles as "learning style is a distinctive and habitual manner of acquiring knowledge, skills or attitudes through study or experience."

Ginn<sup>11</sup> suggested Piagetian approach for the role of teachers in the perspective of experiential learning model. Ginn emphasized on individualized instructional methodologies for the adult learners. Ginn

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<sup>4</sup> Kolb, David A. *Experiential Learning: Experience as a source of learning & development*. Englewood Cliffs, Prentice Hall, 1984.

<sup>5</sup> Crossman (1980). P. 3

<sup>6</sup> Guzman, Nadyne. "Applications of Adult Learning Theories to Constructivist Learning Environments." *Adult Learning Theory*, 2000: 1-11.

<sup>7</sup> Knowles. "Learning Styles & Learning Skills." 1973.p.3

<sup>8</sup> Yoshitaka Yamazaki, Verena Murphy & Mauricio Puerta. "Learning Styles & Learning Skills in Higher Education." n.d: pp.1-38.

<sup>9</sup> Nasreen Hussain, Nadia Ayub. "Learning Styles of Students & Teaching Styles of Teachers in Business Education." *international Conference on Education & Educational Psychology*. Karachi: Elsevier, 2012. Pp.1737-1740.

<sup>10</sup> Dalton, Smith &. "Learning Styles of Students & Teaching Styles of Teachers." *International Conference on Education & Educational Psychology*. Elsevier, 2012. Pp.1737-1740.

<sup>11</sup> Ginn, Wanda Y. "Intellectual Development ." 2002: 1-3.

proposed the role of teachers as facilitator to help students to construct knowledge, stimulate the students as experiential learner rather than listening to the teacher and discovering and rediscovering the knowledge complied with students' future. Ginn<sup>12</sup> stated that "...to understand is to discover, or reconstruct by rediscovery, and such conditions must be complied with if in the future individuals are to be formed who are capable of production and creativity and not simply repetition."<sup>12</sup>

Many studies<sup>13</sup> were carried out related to the learning styles of adults and teachers' perception about instructional programs. These studies indicated that higher educational institutions were in pursuit of effective instructional strategies or programs to attract and comply with adult students learning styles, their retention and success. Csapo and Hayen<sup>14</sup> found in their research that the role of learning styles and the role of understanding learning styles of the students in teaching-learning processes was a fundamental part of effective teaching.

Mishra<sup>15</sup> in his book discussed about the needs of different learning styles in higher education. Mishra stated that teaching methods which were effective for some learners might be ineffective for others students. Adults students usually preferred to have information presented through instructions of teachers both verbally and graphically, or presented sequentially or hierarchically. Mishra found that many students learned best through hands-on activities or personal experiences. Mishra<sup>16</sup> also reported that the differences and similarities in learning styles and intelligences among students was common element; students could be helped by employing a range of active learning approaches (talking & listening, writing, reading, reflecting) and variety of teaching techniques and strategies (lectures, videos, demonstrations, collaborative groups, independent projects. Penger<sup>17</sup> also presented a teachers' views in another research and reported that in the presence of concrete syllabus and strong instructional aided graduate

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<sup>12</sup> Ibid, p. 20

<sup>13</sup> Many studies such as Hardigan, 2001; Duff & Duffy, 2002; Lohri-Posey, 2003; Coffield et al., 2004; Demirbas & Demirkan, 2007; Li et al., 2008

<sup>14</sup> Csapo and Hayen (2006)

<sup>15</sup> Mishra, R. C. *Teaching Styles*. New Delhi: APH Publishing Corporation, 2007. P.58

<sup>16</sup> Ibid p. 68

<sup>17</sup> Sandra Penger, Metka Tekarcic, Vlado Dimovski. "Comparison, Validation & Implications of Learning StyleTheories in Higher Education." *International Business & Economics Research Journal*, 2008: pp.25-44.

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program the adult learners improved their academic grades and attitude toward learning.

Hawk and Shah (2007) stated the following in a research about to enhance students learning through instructions about learning styles of students:

"We believe that most faculty in higher education initially adopt a teaching style that merges (1) the ways they prefer to learn and (2) approaches to teaching they feel as effective for their own learning in their higher education programs."

Learning styles<sup>18</sup> and learning style models<sup>19</sup> among numerous others have offered descriptive typologies that range from relatively fixed student natural dispositions to modifiable preferences for learning and studying. We believe that use of a variety of teaching and learning approaches has the potential to enhance the learning and performance for a wider range of adult students in a course and to expand the learning approaches with which adult students are comfortable and capable of learning.

Research study<sup>20</sup> reported that those learning styles which enhanced students' learning in an academic process were the basic component of individual personality traits. Further, the instructional style should be complied to the individual personality traits. They summarized the different learning models for the implication of effective instructional practices from the perspective of teachers. Hawk & Shah summarized the following learning models:

### **Gregorc (1979) Learning Style Model**

This learning model was related to distinctive and observable behaviours of different individuals. Gregorc learning model provided the significant clues about the mediation abilities of individuals. This situation reflected how the learners minds was related to the world and how the learners learned.

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<sup>18</sup> (Claxton & Murrell, 1987; Coffield, Moseley, Hall, & Ecclestone, 2004a, 2004b) p.2

<sup>19</sup> (Gregorc & Ward, 1977; Gregorc, 1979, 1985; Kolb, 1984; Felder & Silverman, 1988; Dunn & Dunn, 1975; Dunn, Dunn, & Price, 1982, 1989; Entwistle & Tait, 1995; Fleming, 2001; Duff, 2004;

<sup>20</sup> Shah, Hawk & "Using Learning Style Instruments to Enhance Students Learning." *Decision Sciences Journal of Innovative Education*, 2007: 1.

### **Kolb (1984) Experiential Learning Model**

Kolb presented an experiential learning theory in four-stage cyclical process. Kolb tried to combine experiences, perception, reflection and abstract conceptualization in a learning inventory. In Kolb inventory of experiential learning it was claimed that learning was multi-linear in nature in adult development process. Kolb claimed that experience play pivotal role in the learning process of adult. Kolb generalized the differences occurred in learning orientation and the way people learned and emphasized the four modes of learning process.

### **Felder and Silverman (1988) Learning Style Dimensions**

This model characterized the strengths and preferences of different individuals in learning and processing the information in the real world. Felder and Silverman<sup>21</sup> Learning Style Dimensions claimed that adults were more practical than intuitive in real world. These dimension helped these adults to explore possibilities, discover relationship between two things, innovate the new invention and sensing the learners. Learning Style Dimensions has wide application in science and technology education from the instructional perspective of teaching.

### **Fleming and Mills (1992) VARK Model**

Fleming and Mills weaved four modalities: visual, Aural, Read/Write and Kinesthetics sensories in experiential learning process of new information from the perspective of teachers and students. Hawk and Shah<sup>22</sup> cited in the following:

“An individual’s characteristics and preferred ways of gathering, organizing, and thinking about information. VARK is in the category of instructional preference because it deals with perceptual modes. It is focused on the different ways that we take in and give out information.”

### **The Revised Approaches to Studying Inventory**

This model defines learning style as “the composite of characteristic cognitive, affective, and psychological factors

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<sup>21</sup> Felder and Silverman (1988)

<sup>22</sup> Ibid p. 27

that serves as an indicator of how an individual interacts with and responds to the learning environment" (Duff, 2004, p. 56). The model provides scaled measures for individuals on three approaches to studying: deep, surface, and strategic. Students have varying degrees of preferences for the three approaches, with one of the approaches being the most preferred. (Hawk and Shah, 2007, P. 27) The composite of characteristic cognitive, affective, and psychological factors that serves as an indicator of how an individual interacts with and responds to the learning environment (Duff, 2004, p. 56). (Hawk and Shah, 2007, Para 29)

In Kolb's theory, the impetus for the development of new concepts was provided by new experiences. Caulfield and Woods<sup>23</sup> in a research study about experiential learning and its long term effects cited Kolb (1984) in the following words as, "Learning is the process, whereby knowledge is created through the transformation of experience." (p.32). Caulfield and Woods also reported that "College curricula applies experiential learning to assist students in achieving learning outcomes. In education for the past several decades had repeatedly demonstrated that adults learn effectively through experience" (p. 33). In summary Caulfield and Woods viewed the application of Kolb experiential learning model in the perspective of adult learning process.

Bartle<sup>24</sup> referred in a discussion paper and described the significance of experiential learning in the following:

Experiential learning shifts the learning design from being teacher-centred, where the teaching is largely transmissive and the students may remain unmotivated and disengaged, to an approach that is semi-structured and requires students to cooperate and learn from one another through direct experiences tied to real world problems. (p.2)

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<sup>23</sup> Caulfield, J & Woods, T. "Experiential Learning." *journal of the scholarship of teaching & learning*, 2013: 31-48.

<sup>24</sup> Bartle, Dr. Emma. March 2014.  
[http://itali.uq.edu.au/filething/get/5322/Experiential\\_learning\\_an\\_overview\\_March\\_2014.pdf](http://itali.uq.edu.au/filething/get/5322/Experiential_learning_an_overview_March_2014.pdf).

Bartle further stated the conceptual application of Kolb experiential learning model in the instructional method and the adragogy to encourage a personalize approach of learning among adult learners in the context of higher education. Bartle stressed that students should be engaged “...in a variety of campus-based, project-based, work-integrated and community contexts.” ( p.2) to achieve a true perspective of experiential learning among adult students during their higher education.

### **Kolb’s Experiential Learning Cycle**

Kolb's experiential learning Cycle typically presented the four stages for the learners.

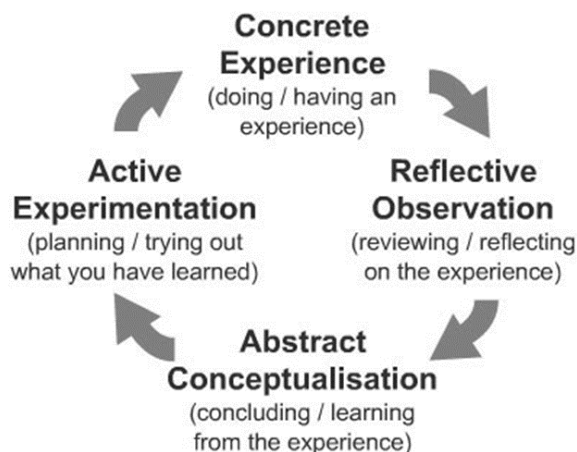


Image source: <http://www.simplypsychology.org/learning-kolb.html>

Effective learning is seen when a person progresses through a cycle of four stages: (1) having a concrete experience followed by (2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalizations (conclusions) which are then (4) used to test hypothesis in future situations, resulting in new experiences.



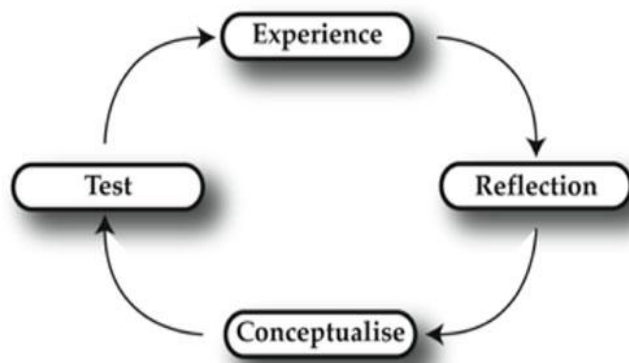


Image source: <http://www.simplypsychology.org/learning-kolb.html>

Kolb reviewed learning as an integrated process with each stage being mutually supportive of and feeding into the next. It is possible to enter the cycle at any stage and follow it through its logical sequence. However, effective learning only occurs when a learners is able to execute all four stages of the model.

### **Teachers' Role in Experiential Learning**

Kolb's experiential learning model presented an indepth instructional application from the perspective of teachers in higher education. This four-stage cyclic experiential learning model facilitated teachers to design and evaluate the learning provision of students while creating conducive learning environment.

### **Methodology**

The qualitative research paradigm was used to explore the different experiential learning styles at higher education level as an insight related to experiential learning model and its compliance with students learning abilities from the perspectives of teachers in higher education in Karachi, Pakistan. An interview protocol related to experiential learning style based on Kolb 's model and its effects on students' abilities from the perspective of teachers was designed. The purposive sampling technique was used; six teachers with equal proportion of gender were selected as research participants. Male participants were represented by M and female with F respectively. The thematic method was applied to analyze the data related to experiential learning model and students' abilities to learn from the

perspective of teachers from the colleges and universities of public sector in Karachi. All ethical considerations were followed by the researchers to signify the process of research findings.

## **Findings**

When respondents were asked about their observation related to learning styles commonly found among the graduate students during higher education the following responses were received:

**M1:** At adult education, there are multiple intelligences found in the classroom. Some students want you to demonstrate, some students want you to give lectures, combined with..uh..presentations, some like to learn through real case-studies....

**M2:** Learning style...Umm,uuh...teachers adopt here is Lecture Method. This is the style adopted in the public sector universities in Pakistan. In my opinion lecture method is quite suitable for students.

**M3:** Well, different students learn in different ways (pause) like some learn using hearing, some used to learn using hearing and vision(both). While some want to learn using their body (kinaesthetic). uh..or learning by doing. There is no fix style.

**F1:** Recommended syllabus has to be learnt by using different teaching styles, umm.. sometimes I think those styles cannot be specified. Different techniques work in different situation. I think students sometime enjoy by project work, sometime lectures and so on.

**F2:** Hmm...there are different learning styles I observed in the classroom. But....commonly observed are..umm.. learning through lectures or demonstrations..ummm..sometimes uh..presentations at this level also helpful for students to achieve learning goals. There is variety of method can be used to engage students in experiential learning process.

**F3:** I notice students prefer use of multiple learning styles. Every student has his own learning preference and sadly our course structure is too intense and lengthy to deliver lectures while ignoring or fail to addressing their learning needs. Our

course does not match with the current learning disposition of our graduate students.

It was evident from the responses above that graduate students were being engaged by their teachers in multiple styles of teaching and learning experiences in accordance with their curricula. Additionally, these multiple styles of learning depended on the learning preferences of students which were including auditory, visual & kinaesthetic learning styles. It was also noted from the responses above that Lecture Method was dominantly being applied across the higher educational institutes in Karachi, Pakistan; it was not compatible with the learning styles of students. That was learning through lecture method, demonstration method combined with the presentation, real case-studies and active experimentation developed the mixed learning styles of students in the context of higher education, Karachi, Pakistan. Respondents also observed no fixed style of experiential learning among students except the different methods used in different situation. In sum students were being engaged by the teachers not purely in experiential learning styles as suggested by the Kolb (2009).

When the respondents were asked about their views related to experiential learning and its effects on the development of learning abilities of adult learners in the context of Kolb's ELM, following were the responses:

**M1:** Yeah.. its' true that uh..education is the constant reconstruction and reorganization of learning experiences...as said by the Dewey..and as we ..the..give them experiential learning, the students would be able to reconstruct and reorganize the..their learning experiences and create knowledge and can form their disposition.and (pause) through this uh.. style you can by giving them hands-on-practices. You can build their skills ..which ..you can say..not possible through other conventional learning styles as suggested in our teacher training and education programs. We are unable to connect our current andragogic or instructional program to the thinking pattern of students.

**M2:** umm.. definitely it is ..it is..because experience is the most crucial thing in our life. Exposure ...exposure ...when you are exposing the real task to students, they get model to the ideas. They know exactly what is to become. In lecture method we spend more time in reading and reading is what? It is one way of learning. You have to apply what you learn and read and you

have to apply it somewhere. Helping students to think about application is missing in lecture method. If I am missing experiential learning exposure myself how I cannot do it with my students to think about it. This is missing factor here.

**M3:** hmm the students learn through experiences more effectively and (pause) this help them develop their practical skills as well. Fieldwork, presentations, group discussions etc. can improve the learning abilities by getting feedback from teachers as students are personally involved in these hand-on activities they learn a lot. Unfortunately, these are few exposure we can offer to our students on few times not always. I feel complete failure when I cannot help my students to relate their experiential learning with professional standards in the job-market.

**F1:** Well it is the most efficient way through which ..uh..you can clear..uh..anyone's understanding of any concept. It is more durable as it is more helpful in conveying the content knowledge to the students more easily. This can also help in improving the teaching abilities of those students who are teaching and learning at the same time. Uh..it also help them to understand other subjects..umm..in high achievement and (pause) in improving practical skills. I can view more strong connection in this case between students' experiential learning and its effect on students preparation for their later life.

**F2:** Experiential learning provides students opportunity to learn through experiences..umm..which help them enhancing their learning for a longer period uh...and uh..this is also helpful in developing their practical skills. It can help as is said improving their practical skills means they can take help in solving real life problems through this experiential learning and of course..umm...effective learning can be done. I feel something missing and our efforts are not in the direction as it should align students present learning with their professional phase of life. We should help the students to think about the present situation and how to improve it. We are missing something I believe in our present system of higher education.

**F3:** Well.. teachers are not trained to use this type of experiential teaching style in order to incorporate this form of teaching we need to be trained to do so. Most of us lack the understanding of how to implement it. As. I observed that we

are still using the same old methods of teaching that is lecture based as have not been placed in any program that will train us. In the west, teachers are trained how to teach their area of specialization through experiential learning methods because it has direct impact on the professional life of students.

The above responses revealed the missing component in the present mode of higher education in Karachi, Pakistan. The respondent agreed on the importance and little application of experiential learning and its effects on students. The respondents were agreed on the application of active experientiation, observation and experiences during the course of higher education in Karachi. However, respondents were agreed that abstract conceptualization was never considered important by the faculty members in University of Karachi. As evidence respondents were indicated about the missing factor that is how to help students to think about experiential learning and its applicability in their later life in current system of higher education in Karachi. It means that students in higher education in Karachi were not involved in higher order thinking process against the experiential learning exposure. The effectiveness of Experiential Learning Model (ELM) deeply relied on the ability to teachers to balance the four modes of Kolb's ELM model.

When the respondents were asked about the effectiveness of instructional methods of experiential learning in higher education the following responses were reported:

**M1:** It would give the students with skills and hands-on-practices, enhances their employability skills. Umm.. through classroom practices, through assignments and activities we can try to improve their practical skills for the real world.

**M2:** I believe curriculum in higher education should be exposure to real life. You know better how to do at your advanced studies, know about the gaps between current academia and curricula. Gap analysis is one major form of learning for future. Once you come out of your college or university you get blank. Confidence, experiences, activities in higher education must be given to align the skills, knowledge of students with real life. So case-studies are the best method to learn about the real life

**M3:** The learning through experience is permanent and sustainable. umm moreover, it helps in avoiding repetition of

mistakes. I believe to design project related to real life in my instructional practices and engage my students.

**F1:** Experiential learning style is an efficient way to learn..uhhh..it is more understandable way for the adult learners and more presentable for the teachers as well. I believe in multiple instructional methods. Sometimes lecture method, sometimes classroom presentation, peer to peer learning and fieldwork. You cannot denied the importance of any method. All methods work in different situation.

**F2:** Yes ..learning through experience is long-lasting. I cannot give you one method that works in all situation. It depends on the topic, students and their background, resources and time. I mostly prefer lecture method to complete my syllabus. I also use other methods such as classroom presentation and take-home assignments.

**F3:** Well.. experiential learning focuses on the learning through observation and uh..interaction with the environment which contributes in providing valuable experience. Umm..this enhances the students overall understanding of the real-time environment. I use many methods such as lecture method, classroom presentation, group assignments and sometime field work. I consider the interest of students while choosing any instructional method that how this method would increase students' interest in the subject.

The respondents enlisted various instructional methods with reference to experiential learning. In addition respondents also enumerate the factors which are directly related to the efficacy of instructional method and experiential learning which can be taken as advantages through experiential learning including practical skills, sustainable and durable learning, confidence-building, employability , gap-analysis and exposure to real life. The responses agreed that there was no single instructional method they found in their professional career which work in all situation of experiential learning of students in higher education. Different instructional methods need to be align with students' interest, curriculum and resources available to the teachers. Most of the respondents emphasized that through experiential learning, students could be able to not only develop but also to improve their practical skills for the real world problems as this gave them exposure to real life due to effective learning. Moreover experiential learning

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had an aspect of providing them opportunities for employability which is an important factor related to the students at higher education

## **Discussion**

The review of literature related to experiential learning indicated that knowledge creation process through transformation of experience was the combination of grasping and transforming experiences of learners in higher education. This research reported that the implications of Kolb's ELM hindered due to the imbalances in the applicability of all the four modes in higher education in Karachi Pakistan. This situation happened because the instructional activities were presented to the students related to the three modes of the Kolb's ELM which were the following: Active Experimentation, Reflective Observation & Concrete Experiences by the teachers; however, Abstract Conceptualization was not considered significant by the faculty members in higher education in Karachi Pakistan, which was proven as a resistance among adult learners to gain the maximum advantages of Experiential Learning. .

The findings of this study also advocated the application of sophisticated blend of all four modes of learning in order to get enhanced learning covering the development of all the aspects duly related to the higher education. Boyatzis<sup>25</sup> also presented the similar findings as following:

We believe that ELT helps us to understand learning and flexibility at a deeper and yet more comprehensive level than previously. It also provides guidance for applications to helping people improve their learning and designing better processes in education and development. (p.28)

## **Conclusion**

This qualitative study explored the effects of experiential learning style on adult learners at higher education level from the teachers' perspectives in Karachi, Pakistan. This study found that, in public sectors universities in Karachi, the teachers ignored the aspect of abstract conceptualization in their current mode of instructional practices. Students in higher education were

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<sup>25</sup> Boyatzis, David A. Kolb & Richard E. "Experiential Learning Theory; Previous Research & New Directions." 1999.

not involved effectively in higher order thinking process against the experiential learning exposure as proposed by KolB 's ELM. This research strongly recommended the engagement of adult learners in real life case studies for observing, reviewing and critically reflecting in order to bond between their classroom learning with their professional lives.

### **Recommendations**

Based on the findings it is recommend that at higher education level in the context of Karachi, Pakistan Kolb's learning cycle may be used by teachers to critically evaluate the learning provision typically available to the students, and to develop more appropriate learning opportunities and instructional activities. The learners should meet all four modes (experiencing, reflecting, thinking, and acting) to make learning an integrated process with each stage being mutually supportive of and feeding into the next. To get the advantages of experiential learning, the activities and material may be developed in ways that draw on abilities from each stage of the ELM and take the students through the whole process in sequence. For this purpose students may be involved in activities such as writing papers, making analogies and projects, building and critiquing models by the teachers. Also individuals may be helped to learn more effectively by the identification of their unconventional learning styles and the strengthening of these through the application of the Kolb's ELM.



## Reference

A.Griggs, Rita Dunn & Shirley. "Practical Approaches To Using Learning Styles In Higher Education." In *Practical Approaches to Using Learning Styles IN Higher Education*, by Rita Dunn & Shirley A. Griggs, 271. United States of America: Greenwood Publishing Group, 2000.

Almasa, Parilah & Fauziah. "Perceptual learning styles of ESL Students." *European Journal of Social Sciences*, 2009: 102.

Bartle, Dr. Emma. March 2015. [http://itali.uq.edu.au/filething/get/5322/Experiential\\_learning\\_an\\_overview\\_March\\_2015.pdf](http://itali.uq.edu.au/filething/get/5322/Experiential_learning_an_overview_March_2015.pdf).

Bartle, Dr. Emma. *Experiential Learning: An Overview*. Australia: Institute for Teaching & Learning (ITaLI), 2015.

Boyatzis, David A. Kolb & Richard E. "Experiential Learning Theory; Previous Research & New Directions." 1999.

Carlson, Wurdinger &. *Teaching for Experiential Learning*. Minnesota: Rowman & Littlefield, 2009.

Caulfield, J & Woods, T. "Experiential Learning." *journal of the scholarship of teaching & learning*, 2013: 31-48.

Collins, Winn & Grantham. "learning styles." 2004, 2005.

Dalton, Smith &. "Learning Styles of Students & Teaching Styles of Teachers." *International Conference on Education & Educational Psychology*. Elsevier, 2012. 1737-1740.

Dunn, Dunn and. "Learning Styles." 1993.

Ginn, Wanda Y. "Intellectual Development ." 2002: 1-3.

Guzman, Nadyne. "Applications of Adult Learning Theories to Constructivist Learning Environments." *Adult Learning Theory*, 2000: 1-11.

Hayen, Nancy.Csapo & Roger. "the role of learning styles in the teaching/learning process." *issues in information systems*, 2006.

Hunt. "Learning Styles & Learning Skills." 1979.

Knowles. "Learning Styles & Learning Skills." 1973.

Kolb, David A. *Experiential Learning: Experience as a source of learning & development*. Englewood Cliffs, Prentice Hall, 1984.

L, Curry. *Review of Learning Styles, Studying Approach & Instructional Preference Research in Medical Education*. 2000.

Lam. 2005-2013.  
<https://www.ied.edu.hk/aiclass/Theories/ExperientialLearning.pdf>.

Lam, BH & Chan, H.L. "Experiential Learning." *Active Classroom*, 2005-2013.

Lam, BH & Chan, HL. "Experiential Learning." *Active Classroom*, 2005-2013.

Love, Love and. "Enhancing Student Learning." 1995.

McLeod, Saul. 2013. <http://www.simplypsychology.org/learning-kolb.html>.

McLeod, Saul. "simply psychology (Kolb-Learning Styles)." <https://www.simplypsychology.org/learning-kolb.html>. 2013.

Mishra, R. C. *Teaching Styles*. New Delhi: APH Publishing Corporation, 2007.

Nancy Csapo, Roger Hayen. "The Role of Learning Styles in the Teaching Learning Process." *Issues in Information Systems*, 2006: 129-133.

Nasreen Hussain, Nadia Ayub. "Learning Styles of Students & Teaching Styles of Teachers in Business Education." *international Conference on Education & Educational Psychology*. Karachi: Elsevier, 2012. 1737-1740.

Nikki Shoemaker, Stephen F. & Marie Kelly. "How college Business students learn with emphasis on differences between majors." *Journal of College Teaching and Learning*, 2015: 223 - 230.

Patrick C. Hardigan, & Burton R. Sisco. *An Analysis of Learning Styles among Undergraduate College Students*. USA: ERIC, 2001.

- The Effects of Experiential Learning Style at Higher Education Level: Teachers' Perspective
- Sandra Penger, Metka Tekarcic, Vlado Dimovski. "Comparison, Validation & Implications of Learning Style Theories in Higher Education." *International Business & Economics Research Journal*, 2008: 25-44.
- Shah, Hawk &. "Using Learning Style Instruments to Enhance Students Learning." *Decision Sciences Journal of Innovative Education*, 2007: 1.
- W., Keefe J. *Students Learning Styles & Brain Behavior*. 1982.
- Yoshitaka Yamazaki, Verena Murphy & Mauricio Puerta. "Learning Styles & Learning Skills in Higher Education." n.d: 1-38.