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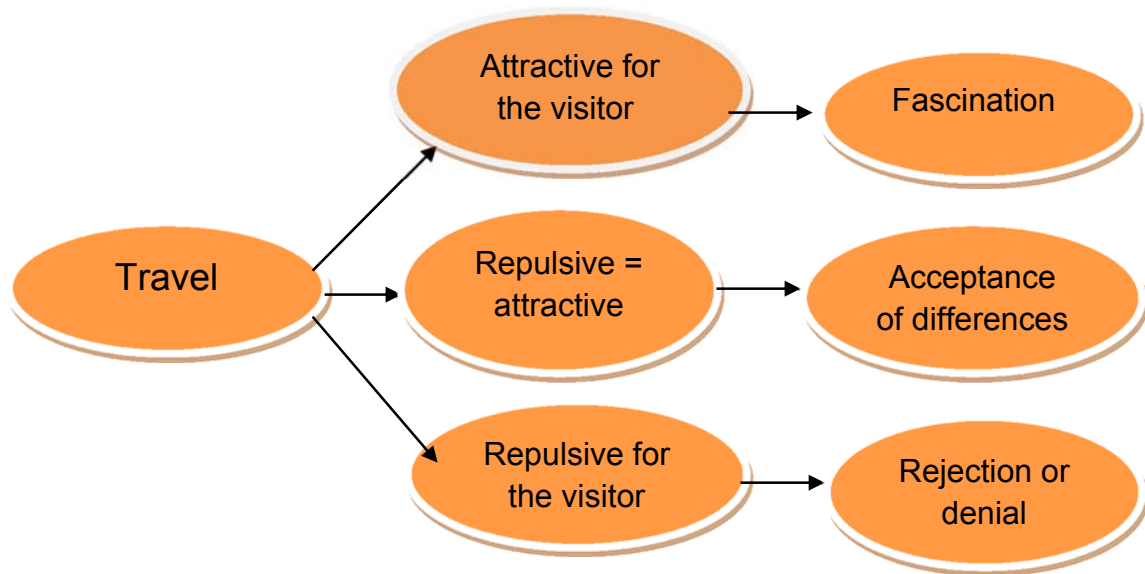


Fig 4. Visitors’ reactions to new spatial experiences. source : Author

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imaginations about the buildings highlight this point that mere library study about design precedents is not a perfect method to teach architecture. travel teachings are not limited to architecture learning, changes in life expectation , comparing individual/social life in your country of origin and host society, reconsidering the lifestyle and thinking about the life philosophy in each one of societies are all reflections of such travel which can not be explained due to the space limit.. In contrast to the classroom learning designed based on a specific syllabus, there is always a chance for learning new things during every moments of travel schooling . Especially the first experience of the host places in which the visitor does not have any idea about them can have the most lasting effects on student's mind

(Fig3). The content analysis of the interviews reveals that people may have three types of reaction to designing characteristics in the host country including artificial environment and perceptual experiences in that environment: 1) fascination 2) rejection and resistance against the presented design methods 3) acceptance of the differences related to the various spatial experiences which have been gained by the visitor through reflection on diverse designs of his country of origin and the host country and the visitor's attempt for modifying the solutions offered in host country for their use in the country of the origin. Regardless of the conclusion that the visitor arrives at, he would no be mentally challenged that much through library studies if one does not attend the very space (Fig. 4).

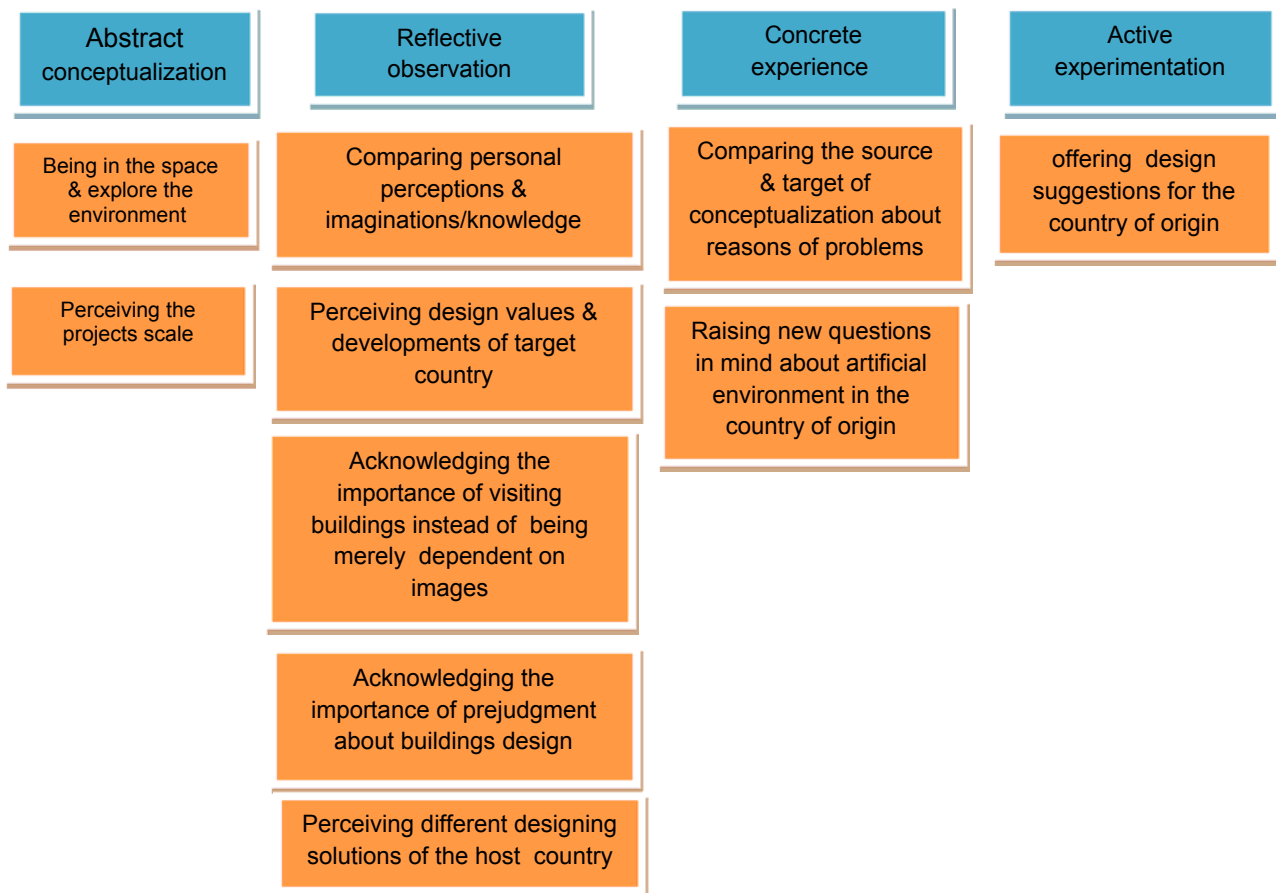


Fig 3. travel teachings based on 4 stages of ELT. source : Author

*protected. Buildings in the European cities are designed and constructed to be used for a long period of time.*

This pain felt up to the point that our attitude towards the precious historic monuments which are inherited from our ancestors was reported to be really merciless.

*But what was more effective for me was the human behavior and management of the spaces in addition to the difference between Westerners' communal attitude towards the architectural and urban planning as wealth along with an approach which is quite different ours .*

Sometimes, the above-mentioned attitude of the host country towards designing depends on the extent to which the Eastern researcher considers the existing buildings in the country of origin as a historical value for the future generations. It seems such an attitude with that degree of rigidity have never existed before physical experience of the host country directly.

*Before the trip, anytime a friend asked me about restoration of his house which was built more than 30 years ago, I thought that it does not worth spending money and time and if deconstructed*

*to rebuild a new house is more economical. Impressed by these countries attitude towards restoration of buildings, now I believe that even a building is there from 30 years ago worth maintenance and protection because it includes 30 years history in addition to a showcase of structure and architecture belongs to a period of time in Iran.*

#### • Active Experimentation (AE)

In this stage of learning, the researcher seeks a solution for the problems in his country of origin. This stage which is also called planning for the future, is prospective in nature. In fact, expressions such as “if we can change it” or “in a project I will design in the future” are repeatedly used in this stage of learning during analysis of what learnt.

*If I could, I would replace most of the squares and urban spaces with sidewalks and increase their capacity for pedestrians to increase the spirit of community.*

*The first place felt to be in our society is spaces for people to gather together for social interactions without any cars and noise pollution, a quiet place to sit like the Spanish steps in Rome.*

## conclusion

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The purpose of present research is to study the experiences of travel schooling in the framework of Kolb's ELT. The results supported the research hypothesis that academic field trips facilitate four-stage learning proposed by Kolb's learning theory simultaneously. Chart 1 presents the research results. One of the travel schooling effects is changing the attitude towards a special issue. What prevents a student from a rigid attitude towards issues and challenges the mind for new solutions. It is important to note that such structural or small changes in attitudes towards different issues in real context can be actualized quicker in shorter time compared to classroom. One's awareness of the host environment in this

kind of learning can be completely different from his previous knowledge. Whatever is the result of such awareness, it can affect the one's attitude towards different issues and probably on his future decision-makings. As mentioned in the previous studies, such mental changes can result in changing the attitude towards the lifestyle, culture and even the visitor's architectural design.

Briefly speaking, educational growth does not occur behind the designing desks or by the computers. Student should experience the space straight and learn how to look at it. Big gaps between the students' perceptions and spatial experiences with their knowledge and

the perception of the projects scale. This part of learning cannot occur through images in the books or digital world.

Another factor that causes the difference between students' space perception and students' knowledge is that some concepts cannot be perceived through images and texts, music, environment noises, human presence and human-environment interaction, to name a few or in one of interviewees' word "space spirit". Another point is that senses like smell, hear and touch are not involved in learning during book reading or looking at the images but they can be just experienced by being in the environment. *In a spatial experience, music, visitors' status and faces, their satisfaction and shops' odors are all influential in the space perception. It seems each space has a kind of spirit and sense which is not perceivable unless the one is placed in it.*

During travel schooling, a student evaluates his knowledge vigilantly. Previous knowledge about the spaces whether it is gained through classrooms or book contexts, seizes a chance to be reviewed. When prejudgment about a special design and direct presence in the physical environment stand side by side, the prejudgment will fade away. In fact, by attending the context, the student understands how consistent his knowledge and his perceptions are.

*Before visiting the Notre Dame church I have thought that Gothic style churches are scary and imaginary but after experiencing such spaces my attitude have changed completely. Accurate judgment is not possible unless we feel the environment directly.*

Another noticeable point that the present research has focused on is the remarkable difference between the presumptions about some contemporary architectural monuments and the experience/perception of that monument. For instance, some students thought that designed buildings in deconstruction style had created unusable interior spaces. However, they believed that spatial experience of Louis Vuitton Foundation by Frank Gehry in Paris was effective in changing such dominant viewpoint.

*Since I saw most of his volumes and images of structures, I have thought that Frank Gehry' works mostly contain forms and volumes and his interior spaces are not usable but when I visited the museum, my attitude changed. Now the pure and various spaces inside the museum besides its interesting circulation really impressed me.*

Another characteristic of travel schooling is gaining a profound perception of the different designing methods for a special problem. The more experience you gain from traveling which is different from travelling within your country of origin, the more you will feel its influence on your thoughts. According to the students liveliness and dynamicity of the city old textures, several sidewalks, protection of the old buildings along with a continuous restoration of them, and creating applications much more appropriate with the daily needs in those buildings are all seen in the appealing design in the host countries. *When I was walking around Massena square in historical structure of Nice City, I realized that there were no cars in that area but there were lots of sidewalks. This was very interesting for me. However, in restoration projects of the old structures in our country, our concern is to access the heart of the project in our cars! We destruct our precious monuments to facilitate car traffic and believe that there is not any other solution! Our experience about Massena square and sidewalks around it tell us that there are other solutions!*

#### • Abstract conceptualization (AC)

A researcher seeks to compare the country of origin with the host country. In abstract conceptualization, one scrutinizes more deeply the reasons why a society is successful. For instance, the host country's attitude towards the historic monuments as a common wealth and a matter for pride were frequently highlighted by most of the students

*The secret of success for any society is to be proud of its properties. It is very interesting for me that attitudes of these countries towards such buildings are as a wealth and value are*



students and researchers who participated in a group field trip to Western Europe in September 2015 and visited Italy and France. Participants were doing their majors in Architecture, Urban planning, Tourism and Art research. The required data was collected through three different time phases: 1) Immediately after visiting the target places, 2) During the trip, 3) After the trip. Data collected through the unstructured interviews in the first two phases and through the questionnaire in the third phase. Unstructured interviews used during the trip in order to understand the participants' experiences about different places and their learning from the trip. After the trip they were asked to name five places from which they learned more and why. The data were gathered through the questionnaire. The interviews during trip were transcribed. In total 83 interviews were conducted. They lasted between 8 to 30 minutes. Information obtained through interviews and questionnaires were content analyzed by NVIVO17 software. The four cycle of ELT applied to code interviews and the interviewees' verbatim examples related to each theme were presented. The research results are presented in next part.

### Data analysis and findings analysis

#### • Concrete Experience (CE)

Being in a context different from your country of origin, in terms of culture and architecture, makes it possible for the researcher to have a concrete experience (CE) and direct perception about the spaces. In doing so, researcher will be in a direct interplay with the space and be able to compare and what has learnt and heard with what exists in the authentic environment straight. Like short-term field visits, academic field trips can promote a direct interaction between the observer and the target space which is the very initial stage of the quadruple process of learning (Fig.2).

#### • Reflective observation (RO)

The reflective observation (RO) is the second stage of learning process in which one reflects on his experiences consciously. This is

specially related to the comparison between the perceptions and knowledge about the visited space before and after visiting. Almost all interviewees acknowledged that at least once felt inconsistencies between their perception of the environments with their imagination about that space. Vocabularies such as "more magnificent" and "greater" in their descriptions about visited spaces could reflect such Inconsistencies.

*The Eiffel Tower was more magnificent and greater than what I saw in media, images or movies.*

In some cases, even imaginations about the space was different and expectations was less than what they had experienced in the very space. This point is reflected in the following quotation from one of the interviewees about Champs-Élysées : *It has always been a great name for me and I have wanted to see it closely since I was a child. I have thought that it is a street completely different from all other streets I have ever seen and experienced. But it was not!*

Some of these disparities are related to the wrong or flawed perception about scale of the projects that can be seen in images, books or the Internet sources. Therefore, being in the very space helps in understanding the difference between what you know and what exists in the reality. Undoubtedly, one of the important factors in learning architecture designing and making a right prediction about the success or failure of the performance based design is related to



Fig 2. experience of being in urban spaces, Siena, Italy. Photo : Fatemeh Khozaei, 2015.

and not through its outcome 2. Learning is a continuous process built upon experience and each learning process is a repeated learning 3. Learning requires solving inconsistencies in the world 4. Learning is a comprehensive process of being compatible with the world 5. Learning is the result of interaction between human and environment 6. Learning is a process of producing knowledge (Bos, McCabe & Johnson, 2015: 862). The ELT introduces learning as a process and believes that knowledge acquired through experience. According to Kolb and his associates, this theory includes 4 cycle of experimental learning : Concrete Experience (CE), Abstract Conceptualization (AC), Reflective Observation (RO) and Active Experimentation (AE) (Kolb et

al, 2001). In this theory, it is supposed that if one go through the four-stage cycle of learning, ideal learning will occur. This results in acquiring new knowledge, skills and even developing a new learning approach. Figure 1 shows the learning process in Kolb's model. Healey and Jenkis describe the basics of ELT as following:

CE: when one involves in carrying out a task actively

RO: when one reflects on his experience consciously

AC: when one conceptualizes a hypothesis or theoretical model based on his observations

AE: when one tries to plan to test the hypothesis or theoretical model in future situation (Healey & Jenkis, 2000).

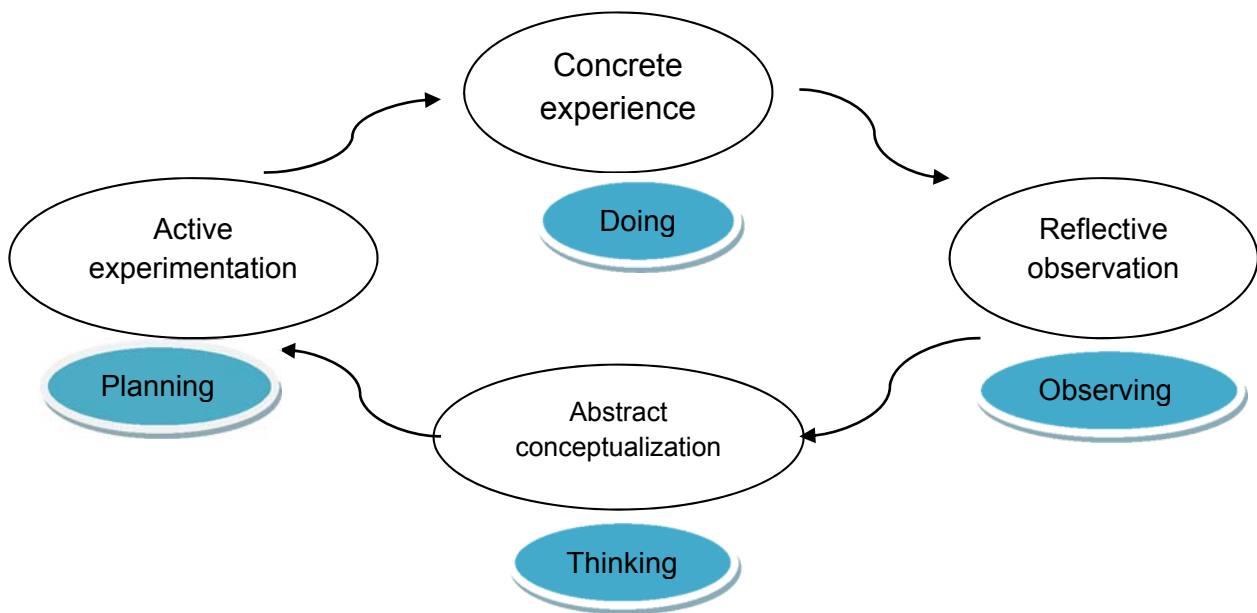


Fig1. Learning process in ELT model – source: Healey & Jenkis, 2000: 187.

**Hypothesis**

This study draws upon Kolb's ELT to set out the following hypothesis :  
 Academic field trips facilitate four- stage cycle of learning proposed by Kolb in his model.

**Research method and process**

This study is qualitative in nature and the instruments for data collection were an unstructured interview and an open-ended questionnaire. The subjects consisted of 25

exploring things and ideas or for activity in social/natural environments, there is a remarkable increase in the students' level of knowledge and awareness (Kisiel, 2006) and improvement of social skills (Bamberger & Tal, 2008) can be easily observed. In a study, Scarinci and Pearce investigated the learning nature and learning rate of North American University students. The results showed that from the students' point of view especially those who travelled abroad for more than 4 times, traveling is really effective in developing general learning skills. Results of this research support this idea that the key skills such as independence, intellectualism, feeling comfortable with different people and to some extent communicative skills increased during this travel (Scarinci & Pearce, 2012).

In another research, Byrnes studied the positive effects of traveling on kids' learning. He reported that those students who traveled to different geographical places often communicate with new people. In addition, traveling familiarizes them with modern ways of transportation, language, food, architecture, religion, clothing and currency of that country. Thus, travelling extends the kids' world view. He added that travelling provides many inevitable opportunities for learning life skills such as problem solving, adaptation, teamwork, patience and flexibility (Byrnes, 2001).

International travels contribute substantially to architecture learning. In his PhD thesis, Culver highlighted this issue which is in line with the present article with respect to content. He explained how graduate and postgraduate students benefited from the international travels and even from studying abroad. Studying the attitudes of 15 students and graduates at Miami and Florida universities, he was trying to understand how international travels and studying abroad increase their awareness of and perception about architecture. The results of his research revealed that most of the interviewees considered such experiences as the most important aspects of learning architecture that made them more interested in this field. The

interviewees also pointed out their positive experience about visiting contemporary and historical buildings which they studied in architecture history and design classes. They added that the experience of studying abroad had a lasting effect on developing their professional life (Culver, 2011). Other research investigated the effect of travelling on increasing students' creativity. For instance, Gurman studied 48 students of 20-38 graduate and postgraduate students concluded that travelling abroad and gaining new and different experience enhanced students' creativity (Gurman, 1989).

Some other researches even go beyond what mentioned above and emphasize that what students gain through outdoor activities and part-time job can be more than what they learn in classrooms (Seidman & Brown, 2006). Moreover, the result of Seidman's and Brown's research show that outdoor teaching not only increases students' hands on experience but also influences their decision about remaining their college or not. Finally, Seidman and brown recommend that for learning optimization, outdoor leaning should be combined with the experience gained in classroom contexts (Ibid).

Some interesting results were obtained from a study in which graduate students visited the Niagara Falls. Before travelling, the students were asked to attend some classes to be familiarized with the place. During the travel they were asked to keep a journal diary about their experiences and take the photos of the environment. After the travel, a meeting was held to analyze the images and discussions and the students were asked to express their perceptions about this experiential learning. Results of this research show that travelling results in students' personality growth and it extends their worldview about different issues (Xie, 2004).

#### • **Experimental Learning Theory (ELT)**

The fundamentals of the experimental learning theory (ELT) were introduced by theorists like Lewin Dewey and Piaget. This theory is based on the following principles: 1. learning, in its best mode, occurs through process and by doing



## Introduction

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It is common for most schools of architecture and urban planning to encourage students to learn about nationally and internationally recognized precedent-based designs. To fulfill this aim, students are often requested to collect information about these projects. The main sources available for students are the images in magazines, journals, books or the Internet websites.

However, studying English texts and a superficial look at the images in each project along with details written about the concept, mere emphasis on the images in the digital world, absence or incomplete design/implementation process just result in not flawed but limited understanding of the precedent-based designs. Such understanding will be far away from what they may be experiencing about the space objectively. This kind of superficial insight about learning sometimes may encourage students to copy forms, volumes unconsciously without understanding their design philosophy and construction method.

It is important to note that design precedent knowledge is a part of learning architecture and designing. Much has been documented on the application of the design precedents in different designs (Zarzar, 2005, Flemming & Aygen, 2001, Akin, 2002, Lawson, 2004). For instance, Akin argues that due to their negative properties, design precedents can help students with identifying and failures in precedent designs and avoiding them (Akin, 2002). On the other hand, according to Zarzar, studying precedent designs is very crucial because the designer's knowledge is more dependent on his experiential memory rather than his theoretical memory. He also added that using design precedents involves several processes such as collection, analysis and modification of the precedent designs with the purpose of fitting them to the desired design project (Zarzar, 2005).

The importance of knowledge about design precedents and their application are echoed in the recommendation of some researcher in using

computer models for organizing design precedent knowledge (Flemming & Aygen, 2001).

Recently much research has been conducted to change the traditional methods of teaching in different levels of learning around the world. Expressions such as experimental learning, outdoor learning, travel schooling have frequently appeared in issues related to education (Bos et al., 2015).

In this respect, most of the educational institutions emphasize the importance of outdoor learning and consider the academic/touristic field trips as an important tool in education. Attitude held by the institutes towards such issue is that traveling is a kind of learning through which one gets familiar with other cultures. Moreover, travelling provides the opportunity to know about lifestyle of other nations and how their natural and human-made environments are organized.

Most of the architecture schools over the world provide learning opportunities for students' outdoor learning through field trips in addition to obligatory course of apprenticeship in architecture companies.

Kolbe is one of the theorists who conducted much research on learning beyond the traditional method of studying university books. His experimental learning theory has been extensively used by many researchers (Kolb, Boyatzis & Maniemelis, 2001) entered into different fields of sciences. Based on the mentioned theory, the present research tries to study the learning experience of some Eastern researches in an academic field trip to Western Europe.

To this purpose, the present paper first reviews the literature review and explains the experimental learning theory and then the research method, data analysis and research results are presented.

### Literature review

#### • Travel Schooling

Tourism can exploit its potential for free learning and knowledge development (Falk, et al., 2012). Previous studies show that during field trips when the classroom is left for discovering and

# Learning through Expedition from Eastern Tourists' Viewpoint: Application of the Experimental Learning Theory

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## Abstract

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Benefits of outdoor learning, experimental learning and travel schooling have long been studied and well documented in other countries. However, these types of learning are still infancy in Iran and are understudied in architecture and urban planning fields. To address this gap in the literature, the present article investigates Iranian students' and researchers' learning from an academic field trip to Europe. Through the lens of the Kolbe's Experimental Learning Theory, it will be predicted that academic field trips facilitate four-stage learning cycle simultaneously. The result of data analysis supported the research hypothesis. This study is qualitative in nature. The data for the study was collected through an unstructured interview and an open-ended questionnaire. The subjects consisted of 25 researchers and students who participated in an academic field trip to Italy and France in summer 2015. After transcribing the interviews and the questionnaires, the content analysis of the collected data were carried out using NVIVO17 software. The data analysis revealed that academic field trips promote four-stage learning cycle namely "concrete experience", "reflective observation", "abstract conceptualization" and "active experimentation" in Kolbe's Experimental Learning Theory.

## Keywords

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Travel schooling, Change of attitude, Experimental learning theory, Learning process.