Studying the Effect of Schools Environment Architecture on Students Identity Formation in Iran High Schools

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ABSTRACT: Ego identity defined as a fundamental element of a person and as self-continuum, mental and inward image that an individual has about him or herself. This subject investigated in contemporary world, amply. For actualizing and testing this concept, four bases including achievement, moratorium, foreclosure and diffusion introduced and based on this framework, and the effect of different factors on ego identity of individuals assessed and evaluated. In the study, the effect of school architecture on students’ ego identity formation in high school investigated. For this purpose that AISS1 questionnaire has been used, in which, in schools of Iran is used for evaluation of ego identity, moreover its reliability and validity for Iran’s schools has been verified. In addition, for evaluation the effect of architecture on identity formation, intervention factors decreased to their minimum level in order to one could evaluate just the effect of architectural environment. It is important to note that results of filling 600 questionnaires from seven schools in two types of architectures, i.e., traditional and modern, have been compared. According to mentioned states, in this article the effect of environmental architecture on identity formation of high school students in Yazd and Tehran provinces is determined. This subject has evaluated and compared in two types of architecture environments: modern and traditional. For completion of this work, effective architecture components on ego identity formation in traditional and modern schools will introduce.

Keywords: Identity, Identity Base, Traditional Architecture, Modern Architecture

INTRODUCTION

However, that there is not much consensus on how to define identity, (Torabi & Sima, 2013), Ego identity is a concept that someone has about him/herself and this concept is arisen from continuous experience and discrimination. Ego is invariable with time, yet it is differs (diverse) from others. Nowadays, this subject addressed in many researches. According to these studies, main duration of ego identity formation is at the age of 12 -18 years-old, and its major indicators are commitment and exploration (Erikson, 1968). Therefore, it is during high school that bases of ego identity formation of students is established, which is the subject of current study.

Marcia J.E. (1966) introduced identity base to extend growth theory of ego identity; introduced by Ericson, actualizing and testing the theory. He emphasized commitment and exploration as two fundamental procedures that mentioned in Erikson’s identity formation theory and introduced achievement, moratorium, foreclosure and diffusion as four identity bases. Marcia’ operational definition of ego identity accepted by many researchers in the field of identity growth (Schwarts, 2001).

For evaluation and comparison of the effect of different factors on ego identity formation, AISS questionnaire was prepared for identity evaluation of school students based upon four identity bases that mentioned in operational Marcia’s definition and investigated in many countries. In near past 2011validity of this questionnaire in identity evaluation of school students verified in a widespread research in Iran. It should be mentioned that occupational factor that is introduced in Marcia’s approach is incorporated in this questionnaire.

Above-mentioned questionnaire used for comparing the effect of traditional and modern architectural environment on identity
I know best, what to study and I have determined this for myself after much examination. I do not know and do not care why I should study. If I take the [university] general entrance exam, I will choose my field in accordance with my parents’ wishes. I very much like to learn what field of study is the best fitted to my aptitude but it is still unclear for me. I spent a lot of time concerning what field of study I should carry on, and I have finally come to a decision. I have no interest in studying.

To select my high school major I always act in accordance to my parents’ wishes I often think about the field I should study but I am still undecided.

Following my investigation and talking it over with various people, my study goal for future has become clear. I have no other plans for my life just now. So I would go to school for the time being.

I will continue in a field of study identified by the school counselor or my favorite teachers. I believe all fields of studies can be interesting but I have not chosen my favorite field of study yet.

I spent much effort to identify my scholastic aptitude and now I know what field I should choose for my studies.

**Identity Concept**

Identity is a term whose depth of meaning cannot be clarified using letters and words (Rajaei Ramsheh, 2012) but Ego identity as a fundamental element of person defined as self-continuum and mental and inward image that person as an individual has about him/herself. In identity studies, identity application identified and limited. Sex role, collective, race identities are examples of this subject.

William James argues that ego identity is a concept that individual has about him/herself as a person and this concept is arisen from continuous experience and discrimination. In other words, ego is invariable with time, yet it differs (diverse) from others.

According to these definitions, integration to the meaning of the word, identity, (in English) related to the word, identical, are understandable; is essential to the concept of identity. From other hand, purpose of identity is a collection of various assimilations during social and mental growth. This is representative of two mutual aspects in identity concept. Identity as a set of roles and assimilations implies various egos and singularity and unison implies a single and integrated ego.

This contrast will solve by mental growth of person. “I” through ego growth organizes a continuous personality that could be understood by others. To achieve that, due to a conscious sense of individual identity, an unconscious striving for continuity of manner and a core responsibility for the ideals and social identity of a group takes place (Breger,1974; Adams,1999).

It should be noted that identity is explainable from genetic, compromise, mental or experiential, existential points of view.
Main Indicators of Identity

The main indicators or most important identity recognition processes are commitment and exploration. Commitment is the extent of mental investment and individual stabilization in relation to one or various forms of identity like occupational tendency or special ideological attitude. Commitments including social, moral, ideological and family have social significance and by this concept person defined him/herself. Significance and dimension of commitment is understandable through the scale that because of its lack, person feel absurdity state.

In Erikson theory, exploration defined as a normative event of life. He state exploration as "one transformation stage, one imminent moment that growth should be progress through special way, integrating growth sources and more discrimination and development (Erickson, 1968; Adams, 1999).

Identity Base

Marcia addresses identity base for extension of identity growth theory and actualizing and testing of this concept. Base identity achieved of individual psychological growth to late adolescence and the exploration of the fifth stage of development in Ericsson’s theory, which the adolescence and exploration are the exploration identity can be versus the role confusion. This point is the transition period from childhood to adulthood and the ideological commitment to the job duties and responsibilities of adulthood.

The basic developmental task and learn when a person faced with in adolescence is creating an independent identity, "Diffusion" the failure to resolve this crisis and "Achievement" to the identity is the result that it is successfully resolved. Achievement to identity requires various resources in a whole that is consistent and meaningful. So that one can establish a reciprocal relationship with its community and a sense of continuity and unity maintain in the inner. (Marcia, 1966; Bishop et al., 1997)

Marcia emphasized on exploration and commitment as two essential procedures in identity formation process, in Ericson theory for definition identity base. Considering these two criteria, Marcia introduced four identity bases: achievement, moratorium, foreclosure and diffusion.

Achievement base selected for someone who passed duration of exploration and reached an obvious commitment, and moratorium is for whom that is experiencing, active search and motivated query about identity and him/her commitments are vague. A person is in foreclosure position that has accepted commitments without passing any query or search courses, the base of these commitments is child assimilations and values of parents. Someone who is neither experiencing exploration nor reached any commitments is in diffusion base (Marcia, 1966).

In Marica’s approach occupation, religion and political ideologies have been introduced for exploration and commitment bases that involves subjects that person is searching for finding alternatives for them and obtain a solution for it. In new extensions that have been created for identity base, inter-individuals identity includes subjects like friendly relations, relation with opposite gender and sexual roles and subjects related to values (Adames, 1999; Bartle Haring, 1997).

Identity Formation Process

Although identity formation occurs in a convenient environment, however, this process is a result of sequential growth stages that childhood processes have important role on it. Although identity formation during teenage differ from assimilation and secretions processes of childhood, but stem from the same thing that child gain (attain) through it and identified as ego at the end of childhood. Erickson uses epi-genetic term (in space and time one case created over another) for description of identity formation characteristic and wider aspects of transformation of personality.

According to this principal, identity formation in teenagers results from those things that child has obtained through secretion and assimilation processes and identified it as him/ herself at the end of childhood. In addition, according to this principal, each stage has its own dominance time and a growth sequence is infrastructure of all progresses (Korger, 1996). First concept of “me” is emerged in childhood and through trustful relation with parental internalized form. If child could experience a secure relation, she/he could discriminate between himself/herself and growth partner. Internalization of parents’ image with unison of that image is introduction prologue of achieving more mature identity. After this stage of childhood, assimilation that its mechanism is similarity between oneself with praised persons and obedience of their values and rules causes preliminary structuring of “I”. Deficit of every essential mentioned stages, could cause fail or delay in teenage identification (Newman & Newman, 1997; Kroger, 1996).

Therefore, identity formation of teenage is synthesis of primary assimilations in a new corpse and occurs when teenager select some of them based on interests, abilities and their values and reject some of them.

Another form of identification is endowment and its process is so that person progressively know its position in the world and gradually understand component of him/her identity and realize that he/she is differ from him/her parents. He/she is child of specific parents, she/he has skills and needs, and he/she is student of school and a member of religious group and so on. Therefore, primary identity of teenage could be a collection of identity components (assimilations, roles, needs and abilities) that is called endowment identity or is synthesis of this identity which is called formed identity (Marcia, 1987).

Problems of Identity in Teenagers

Primary teenagers’ experiments about new roles threaten security that relates with child condition in family and formed identity of her/him past. For evading this insecure condition,
teenagers resort to mechanisms like extremism, over-obligating
and escaping from reality that described briefly.
Extremism is normal to some extent in teenage. Testing new
roles and new ways of thinking are proper forms of experiment.
However, demolition child identity in special persons may cause
more anxiety that leads to resorting to extremism immature
identity. Independence, dependence, sensational excitation,
ignorance, obedience and aggression are contradictions that
teenagers may find a extremism solution for all or some of
them.
Many teenagers have not comfort feeling in society. For
example, they think that they do not have a skinny and dandy
body and are unsatisfied or even ashamed of this condition. This
caused that they avoid from social relations and activities and
evade from social reality towards imagination and passiveness
about romantic, athletic and social realities.
Evading from reality like extremism may be normative aspect
of teenage or may be harmful.
Here, it should be added that in identity formation as the result
of social effects, identity is definition of self-social. Person
may attain a relatively sustainable self-image but if society not
identifies it nor understand it, he/she lack proper identity.

The Effect of Educational Environment on
Identity Formation of Teenagers
Educational environment could have a positive effect on
formation of “achievement” identity base in students and
directing them to future life. The role of high school environment
in this case has verified by many researchers (Lanner grand –
Willems & Bosma, 2006). Therefore, educational system of
Iran described and effect of two architecture styles on identity
formation of teenagers will evaluate and analyze.

Educational System of Iran
In this educational system, students are in one hand and teacher
is another hand. Teachers state general courses orally and
students listen to him/her and take notes. In special courses,
in addition to oral description, several exercises solved and
remaining exercises leave as homework for student.
In Iran’s high schools, yearly credit system is common. In
this method, whole of books or courses taught during one
educational year and teachers take exams half of book in the
end of semester and whole of book in the end of year.
This education system is teacher-based, students are passive
actors, and their role is listening to teacher’s speech. In learning
process, experience concept is very invaluable and during
education the learner is depend upon trainer.
Based on this insight, learner evaluation performed only
by teacher and students have a negligible role in evaluation
learning processes and their performance, and evaluation of
teachers is prohibited.

Selective Examples of Yazd’s Schools
In traditional form with its design systems and governing
rules, originated forms from this country stimulate, collective
memory of individual have been used. For explaining this case,
Iranshahr and Markar schools of Yazd city described, briefly. It
should be noted that selected schools for this type of architecture
form in Yazd are Iranshahr, Markar and KeiKhosravi schools.
In modern form with ignoring traditional systems and rules,
imported forms that often derived from architecture magazines
used in which their focuses are meeting performance needs.
Selected schools for modern forms of Yazd’s schools are
Rasoolian, Dayhimi, Razi and Shahrivar 17th schools that
described, briefly. (Fig.1 & Fig.2)

IranShahr School with Traditional Architecture
IranShahr School locates in Mosalla alley of Yazd city.
Constructing of building began in 1936 and finished in 1938.
Main building has area about 4500 – 5000 square meters and
established in a land with 17871 square meter area.
Apparently, map of this building prepared by Andre Gedar and
Maxim Siro due to request of education Bureau of Yazd city

Fig.1: Location of selective schools in Yazd city
Fig.2: Spatial image of selective schools and their neighbor
that went there to study on great mosques of Yazd at that time. This building considered as one of masterwork during Pahlavi era of Yazd city. In this structure oval arcs that are characteristic of Sassanid architecture, dropsically arcs of Safavid dynasty had been used and colored glazed tiles has been used in turrets of porches.

This school is under supervision of Cultural Heritage Organization, by registration number 2048, and currently has more than 500 students with 20 classrooms in three fields; mathematics and physics, empirical sciences and human sciences. (Fig.3 - Fig.6)

Markar School with Traditional Form
Markar School is near to Markar square, which its clock is a symbol for people of Yazd. This school constructed by Andre Gedar and pertains to First Pahlavi era. Building of this school established in 1934 and includes 18 classrooms and one saloon with capacity of 800 students, caretaker building located at south west of school. Ceiling of all section of this structure is simple crossover and
used materials are brick and mud. Elevation of all sections is brick and only small building of caretaker has elevation with thatch is plated. (Fig. 7-Fig. 10)

Shahrivar 17th School with Modern Architecture

Shahrivar 17th is one of modern and new schools of Yazd city that constructed in 1994. This school has two floor, 14 classroom and almost 350 students. In this school, familiar traditional architecture forms of past Yazd not observed and imitative forms that repeated in new schools are used. (Fig. 11 & Fig. 12)

Introducing Some of the Selected Schools in Tehran

In Tehran, some samples selected for the two traditional and...
modern forms from the educational zone six. Alborz and Hashtrudi schools are among selected traditional samples and Motahari, Javidan and Saeedi are among modern samples.

Alborz School with Traditional Form

Alborz School has been located in College crossroad in Tehran, next to AmirKabir University, since 1301. The antiquity of this school is about 140 years including the period during which it was called the American College.

Maxim Siro (who was very interested in traditional architecture of Iran and designed many modern buildings in a traditional way) and Nicholai Markov prepared the plan of this building. In this building oval arches have been used which is a characteristic of Sasanian period; dropically arches which are related to Safavid period; and in the turrets of porches, glazed colored tiles have been utilized. (Fig.13-Fig. 15)

Comparing Architecture Components Design Affect Identity Formation in Traditional and Modern Schools

In traditional schools, yards not only separated from building but also building of school and empty space are together. Entrance yard of these schools creates space between school and outdoor noises and there is a special yard for students. In new schools, remaining area of school considered as yard. In some of these schools, yard is very small and its size is not suitable even for a volleyball court. In contrast, Markar traditional School has three football pitches, one volleyball and basketball court.

In traditional schools, functional sections are independent, that is, official and educational sects are separate from each other, and however, supervision on students’ activities is possible. In new schools, official and educational sectors emerged together and there is no distinct border between them. This causes students always imagine themselves under supervision of principal and assistant so they are worried about it. In traditional schools in spite of supervision, students feel more freedom for their normal activities and have not to leave some of special teenagers’ activities.

In traditional schools, auditorium exists among educational sects, but in new school there is no auditorium and if there is, it is used for prays or exams. In traditional schools, plural space is a place for passing recreation time, interaction and companionship and due to proportion of its dimension, it intimate student to each other.

Forms of traditional school’s building is imitation of Iran’s traditional forms that are familiar and understandable for individuals and applied concepts of architecture design such as axes, geometry, proportions, rhythm and iteration are considered very well. Forms of new schools derived from architecture magazines that are strange forms. Architecture of these schools is a bed for different applications like education, management and so forth and mentioned concepts that qualify
architecture space are not seen. In traditional schools passages between classrooms are through semi-open spaces, each enter, and exit time, students interact with open space. In addition open spaces are come to inside with door and windows so that students have an appropriate view toward outside. In new schools window with high platforms, view toward outside is impossible. It is important to note that these windows due to improper location often covered with curtains that hinder from sunshine.

Traditional schools have more height relative to new schools due to having vault roof. There is often natural and moderate light from ceiling that give a required comfort to classroom. However, in new schools with low height, classroom space is depressing and lighting due to various reasons is dummy.

RESULTS AND DISCUSSION

As described in research method section, AISS universal questionnaire used for purpose of this study. Many articles and researches have been verified reliability and validity of the questionnaire for evaluating students’ ego identity condition in Iran’s schools. For all 16 questions of questionnaire an interval between 0 (zero) and 1 with 100 divisions has been assigned. Students reply to question by marking a point in this interval. If they were absolutely agree with a question, score 1 and if completely disagree with it score 0 is gave to it. Position of mark that always is between zero and one represent valuation of questions by students (for example, 0.72 or 0.34). 600 students replied value mean of each question that show in following matrices. (Fig.16-Fig. 21) It may be possible, student do not reply all of questions due to haste or impatience, correctly. For avoiding this probable error, related questions of each identity bases in Marcia’s theory asked several times in various forms. Questions numbers related to achievement, moratorium, foreclosure and diffusion bases presented near to each other in following matrices.

In addition to the mentioned cases, for reducing possible errors, one question among questionnaire’s questions considered as a base to calculate explanative variance. Explanative variance shows amount of deviation of students’ replies to questionnaire’s questions and if this error exceed a special limit for a considered questionnaire, it is not reliable no more and should be eliminated. Following matrices show the level of explanatory variance for each identity base and this level is acceptable.

<table>
<thead>
<tr>
<th>Item number</th>
<th>Moratorium</th>
<th>Achievement</th>
<th>Foreclosure</th>
<th>Diffusion</th>
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<tbody>
<tr>
<td>7</td>
<td>0.48</td>
<td>0.51</td>
<td>0.46</td>
<td></td>
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<tr>
<td>8</td>
<td>0.57</td>
<td>0.59</td>
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<td>9</td>
<td>0.60</td>
<td>0.54</td>
<td>0.58</td>
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<td>10</td>
<td>0.55</td>
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<td>14</td>
<td>0.53</td>
<td>0.52</td>
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<td>1</td>
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Variance Explained: 20.3 20.46 16.53 13.72
Total Variance Explained: 20.3 20.46 16.53 13.72

<table>
<thead>
<tr>
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<td>4</td>
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<tr>
<td>12</td>
<td>0.49</td>
<td>0.38</td>
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Variance Explained: 16.57 14.25 17.68 10.52
Total Variance Explained: 16.57 14.25 17.68 10.52

Fig.16: Base factor matrix for 16 questions in traditional Schools, Yazd schools, Yazd

Fig.18: Comparing base factors for 16 questions in modern Schools, Yazd schools, Yazd
Fig.19: Base factor matrix for 16 questions in traditional Schools, Tehran schools, Tehran

Fig.20: Base factor matrix for 16 questions in modern Schools, Tehran schools, Tehran

Fig.21: Comparing base factors for 16 questions in modern and traditional schools, Tehran

Considering above matrices and graphs that depicted for the sake of simplicity of comparison, valuation of moratorium base in traditional schools is higher relative to modern schools. This shows that more students in traditional schools are experiencing, following up active searches and motivated query about identity. This subject is true about achievement base, that is, more students in traditional schools engaged with a course of exploration and search and reached a special commitment. Foreclosure and diffusion bases that represent inappropriate condition in process of students’ ego identity formation are higher in modern schools, that is, more students in these schools without passing search and query courses have accepted commitments or neither are experiencing any exploration nor achieving any commitment.

By this comparison, one could result that traditional schools are much suitable places for better identity formation and growth for high schools students.

CONCLUSION
In this study, ego identity and influential factor on it introduced. In addition, this concept was compared through replying translated AISS questionnaire by 600 selected students from two architecture; traditional and modern forms. This questionnaire covers four identity bases that addressed in Marcia approach for testing ego identity in occupational scope: achievement, moratorium, foreclosure and diffusion. It was observed in findings section that moratorium and achievement bases that show rather appropriate position in identity formation of students are higher among traditional architecture schools in comparison to modern schools. In addition, foreclosure and diffusion bases that considered negative factors in identity formation are lower among traditional architecture schools relative to modern schools (definition of mentioned identity bases presented in 2-3 section).
Therefore, traditional architecture of Iran schools use concepts of traditional architecture design, such as considering open and closed spaces; importance of open or empty spaces; implying hierarchical order; proportions of building, iteration; rhythm, natural lighting; eliminating undesired noises and creating appropriate space for student; constructing interaction and discussion places for students; preparing proper view; exposing students to nature and so on. That all described in 3-4 section in details, have better impact on process of ego identity formation.

**ENDNOTES**

1. Academic Identity Statues Scale

**REFERENCES**


