An Alternative Approach Proposal in Architectural Project Studio: Nine Types of Temperament Model

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ABSTRACT

Project studios are an essential part of architectural training as well as being one of the core subjects in this field. The aim is to create an informative and high-quality project process to deliver an end-product. It can be argued that, in addition to being informative, a process that is interesting, creative, captivating, and capable of maintaining a prominent level of working performance is likely to enhance the quality of training. The functioning of architectural project studios and methods that can be used in training have always been important matters of debate. It is obvious that, bearing the changes in technology and concepts in mind, architectural training should be grounded on an understanding of cooperative solution-seeking instead of a one-way interaction between the trainer and the learner.

Architectural training is a discipline where it is easy to spot individual differences in the performances delivered as a part of semester studies. It is believed that the use of Nine Types of Temperament Model, as a comprehensive and holistic model, will provide preliminary information about the personal characteristics of learners and enhance the quality of communication with them. The present study discusses the concept of temperament as the starting point of interpersonal differences and proposes the Nine Types of Temperament Model, which arose from this concept, as an approach that can be used in architectural project studio.

Keywords: Architectural Project Studios, Learning Process, Individual Qualities,Nine Types of Temperament Model.

INTRODUCTION

Educational background, different personality traits, environmental factors, previous experiences, notion of the self and physical well-being are all factors linked to motivation. Motivation and attitudes towards learning and the subject at hand have an impact on the

success rate at which the subject is learned (Barrett et al., 2005; McDonough and Shaw, 2003).

Individual qualities, opinions and behaviors play an essential role in learning. It is believed that providing a suitable atmosphere for effective communication in studios will make it easier to stimulate ideational activities in learners. The design process in studio entails an individual to create original arrangements by envisioning in mind what already exists. Uluoğlu (1990) argues that the design action begins with the conceptual representation of the intended object in mind, followed by establishing relations among concepts based on objectives and solving various problems.

Because the learning process is directly related to the learner, the design training aims to educate individuals as a whole, including their cognitive, affective and psychomotor qualities. It can be argued that it is possible to develop learners into creative and unique individuals by adopting learning processes aimed at their individual qualities (Kılıçaslan, 2015).

Learning processes linked to mental evaluations are unique to an individual. Therefore, teaching and learning strategies in architectural project studios should be based on the principal that learners can obtain the information they need by using their own resources. The knowledge structure of the studio coordinator and the way s/he conveys this knowledge are important for the quality of training.

ARCHITECTURAL PROJECT STUDIOS

Project studios are an essential part and a core subject area of architectural training. Studios include a design process that is based on the communication and interaction between the trainer and the learner and where semester studies are transformed into end products as final projects. Both learners and trainers have a vital role in the production process. However, in the current practice of architectural training, the process and the product are interwoven with and influenced by each other. The studio trainer's main role is effectivelyleading the designs through corrections and guiding the learners.

In architectural design studio, the relationship between the trainer and the learner is of particular importance for an efficient process. Within this process, learners are provided with options through reviews, and they are expected to express the solutions they come up with in accordance with the architectural expression–transmission techniques.

In addition to the trials of partially contemporary techniques, the learning process in architectural project studios is based on a master–apprentice relationship. Although it might vary across schools, the way studios generally operate can be summarized as follows:

- Deciding the content of the subject(s) to be covered by sharing relevant opinions
- Learners researching their topic of study and gathering information using existing structure samples
- Identifying what is needed with respect to the topic
- Doing sketch practices for relevant design suggestions
- Developing a project selected among suggested designs
- Presenting the project through two- or three-dimensional drawings and models.

Although it might appear to be a group effort, the design process is actually more of an individual engagement. A more active, engaging and critical atmosphere in the studio will make learners feel safer and more comfortable. Thus, it will be possible for them to fondly and willingly carry out all practices, especially perception, detection, interpretation and design. The design process, from the research/information collection stage to the delivery of the end product, is directly linked to the subjective qualities of learners. Each learner participates in the design process through their own life experiences, individual qualities, traits and creativity. In terms of the individual's approach to the learning process, affective qualities such as interest, willingness and internal motivation are important for a learning process that is built on learner-centered active participation.What according to the learners makes a course interesting or worth learning influences their willingness and attitudes towards the course. It is possible to contribute to their achievement in learning through qualities that encourage and motivate them.

Adopting an educational approach that is sensitive to interpersonal differences may make it possible to gather preliminary information about learners' personal characteristics, which is likely to ensure a healthier and higher quality communication with them. Such an approach can make it easier to prevent potential miscommunications in a master–apprentice relationship. The use of the Nine Types of Temperament Model will present a different perspective for the project design process to be experienced in a quality atmosphere with regard to both studio coordinator-learner relationship and academic achievement levels.

NINE TYPES OF TEMPERAMENT MODEL

Temperament is the smallest building block that shapes motor, sensory, and cognitive functioning and organization, which are the three basic psychological functions of individuals. It is associated with the processes of sensation, establishing connections and motivation, which underlie the integration of emotional skills and habits. Temperament characteristics constitute temperament types by gathering around a certain existential position in each individual. Personality, however, is a dynamic construct that develops on the structural and static state of temperament. Temperament characteristics that comprise the natural personality of an individual are constant. However, the training they receive considerably influences whether the individuals display the characteristics of their temperament in a positive or negative way (Arkar et al. 2005; Selçuk and Yılmaz, 2016).

Several theories and approaches deal with identifying individual differences and integrating them with instructional principles. Examples of models related to temperament and personality include Five Factor Model of Personality by Costa and McCrae (1990), Psychobiological Seven Factor Model of Personality by Cloninger (1993) and Affective Temperament Model byAkiskal(1983; 1987; 1998). In addition to these models, Enneagram, a traditional system that is used to interpret and analyze the mechanisms of the self, has reached the present day through assumptions and verbal transfer. The Nine Types of Temperament Model was introduced as a new type of temperament upon the reconsideration of Enneagram system. The Nine Types of Temperament Model is one that focuses on understanding the origins of human behavior and regards the concept of temperament as central to individual differences (Selçuk and Yılmaz, 2016).

Enneagram includes nine personality types that explain individual differences. These are 1. The Reformer, 2.The Helper, 3.The Achiever, 4.The Individualist, 5.The Investigator, 6.The Loyalist, 7.The Enthusiast, 8.The Challenger and 9.The Peacemaker. According to the Nine Types of Temperament Model, defining temperament over a single characteristic is limiting. According to this approach, each type of temperament is named after the essential orientations that are unique to the type and identify its existential position (Yılmaz et al., 2014).

The essential characteristics of the temperament types put forward by the Nine Types of Temperament Model and the conditions that are likely to facilitate effective communication are presented as follows in light of information provided by Selçuk and Yılmaz (2016) and Yılmaz et al. (2014).

1. Seeking Perfection (NTT1): Theseare perfectionist, principled, fair, in control, meticulous, conformist, judging, critical and tense individuals. It is important to approach these individuals in a consistent, clear and rational way to start an effective communication. It will be more helpful for these individuals if the trainer maintains a self-confident, determined, clear and dignified stance and pays attention not to make physical contact. Under stress, they display the negative traits of NTT4. They lose their interest in their work and become dull by turning in upon themselves. When they are comfortable, however, they display the positive traits of NTT7. They become more lively, joyful and cheerful than usual and more willing to try new ways and alternatives.

2. Seeking to Feel Emotions (NTT2): These individuals are emotional, helpful, warm-blooded, relationship oriented, touchy, reproachful, insisting, hasty and manipulative. Affectionate expressions together with helpful and compassionate manners will ensure a warm and close relationship with these individuals. As they expect to be sympathised with, touching them on their hands, shoulders or backs to encourage them might motivate them to participate more willingly. Under stress, they display the negative traits of NTT8. They tend to be offensive, accusative and rebellious in their relationships. In their comfort zone, they display the positive traits of NTT4. Their emotional sensitivities become deeper, and they turn to their inner worlds.

3. Seeking Admirable Self Image (NTT3): These are ambitious, competitive, success oriented, pragmatic, image and status oriented, insensitive, motivator and diplomatic individuals. In a relationship with them, it is important to have an image that will impress them because such an image reflecting self-confidence and admirable nature is important for an effective communication. In addition, showing interest and expressing appreciation to them is crucial in motivating them. Under stress, they display the negative traits of NTT9. They lose their willingness to work and experience a decline in their success rates because they feel tired. When comfortable, however, they display the positive traits of NTT6. They are conscious about the needs and expectations of the society and realize the importance of group success.

4. Seeking the Meaning of Emotions (NTT4): These people are romantic, naive, introverted, individual, original, emphatic, exploring the meaning of emotions, artistic, melancholic and passionate. It is important to approach them in a calm and sincere way to establish a sympathetic relationship. It will be helpful to respect their individuality and let them express themselves freely. Under stress, they display the negative traits of NTT2. They need to be loved and cared for. They are wild, touchy and furious. When they are comfortable, they display the

positive traits of NTT1. They enjoy living according to rules and requirements and tend towards fulfilling their responsibilities in a neat and systematic way.

5. Seeking the Meaning of Knowledge (NTT5):This type includes individuals who are introverted, silent, shy, solitary, observant, analytical, rational, abstractive, cold, insensitive and skeptical. They attach importance to cognitive features rather than emotional-relational features. Because they do not enjoy physical contact and intimacy, they may feel uncomfortable when they are treated too warmly and closely. Approaching them with realistic and clear expressions instead of implicit and allusive words will help establish a healthy communication with them. Under stress, they display the negative traits of NTT7. They become restless and impulsive and have difficulty in concentrating. They exhibit extreme and careless attitudes. When they are relaxed, they display the positive traits of NTT8. They might be relaxed, extroverted, active and sociable. They can act confidently and make quick decisions.

6. Seeking Intellectual Serenity (NTT6):This type includes individuals who are loyal, reliable, easy-going, neat, cautious, discreet, frugal, considering negative possibilities first, skeptical, questioning, secretly critical, storing information, ambivalent and indecisive. Approaching them in a determined, confident, knowledgeable, consistent, and reliable manner will help establish a relationship with them that is based on trust. They should be given guidance to ensure that they become self-confident and sure of their decisions. Under stress, they display the negative traits of NTT3. They might attempt to win through without considering the rules and details. They might make impulsive and reactive decisions. When they are relaxed, on the other hand, they display the positive traits of NTT9. They are relaxed, easy going and calm. They establish optimistic relationships with those around them and become sharing.

7. Seeking the Pleasure of Discovery (NTT7):These individuals are lively, mischievous, talkative, optimistic, practical, innovative, adventurous, hedonistic, dreamy, exaggerating, impulsive, carefree, careless and whimsical. Approaching them in a fun, cheerful and relaxed manner creates a ground for effective communication. Learners who have an outgoing and sociable mind enjoy being treated in a comfortable and friendly way. Since they are fond of fun and freedom, establishing a balance between fun and boundaries would be helpful. Under stress, they display the negative traits of NTT1. They exhibit angry, critical and complaining attitudes. They might be fussy and bossy. When they are relaxed, on the other hand, they display the positive traits of NTT5. Their attitudes indicate a preference for silence and solitude. When alone, they can concentrate for a long time on a topic that interests them.

8. Seeking Absolute Power (NTT8):These are brave, self-confident, authoritative, tough, dominant, leading, blunt and angry. Approaching them in a determined, embracing and protective manner is important for establishing a healthy relationship. It would be helpful to be strong enough to protect and embrace them and at the same time mature enough to respect their power. Under stress, they display the negative traits of NTT5. They are unstable and anxious and likely to take a backseat. Rather than approaching problems with action, they become skeptical and exhibit a passive attitude. When they are relaxed, on the other hand, they display the positive traits of NTT2. They can be patient, calm and compassionate. They can be more polite, moderate and understanding towards those whom they regard as being trustworthy and well-intentioned.

9. Seeking Sensorimotor Comfort (NTT9):These people are calm, peaceful, phlegmatic, easy going, mediating, repressive, shy, stubborn and prone to laziness. It would be helpful to have a soft and warm approach to learners of this temperament type for establishing a simple and routine relationship with them. Effective communication can be maintained by acting positively and constructively instead of judging them. Under stress, they display the negative traits of NTT6. They become tense, insecure, and skeptical. Feeling insecure causes them to question the environment and people around. However, when comfortable, they display the positive traits of NTT3. They become sociable, energetic and lively. Their willingness and ambition to be successful enable them to step into action easily and finish their work in a short time.

The aforementioned types of temperament have motor, emotional and cognitive characteristics with risky potentials that are open to both positive and negative consequences. According to the Nine Types of Temperament Model, each type of temperament might yield different behaviors in cases of stress and relaxation. According to this approach, individuals exhibit the negative characteristics of another type of temperament under stress and the positive characteristics of a different type when they are relaxed. In addition to these, the characteristics of the basic temperament type are also varied by the influence of the wing temperaments. The wing effect is the condition where, in addition the basic temperament type, another type affects the individual. Each type of temperament is under the influence of another type that comes right before or after it. Every individual, no matter if they are strong or weak, definitely possesses a wing effect. According to the Nine Types of Temperament Model, everyone is associated with four temperament types throughout his/her life. These are defined as "basic temperament type", "temperament under stress", "temperament under relaxation" and "influencing wing temperament" (Selçuk and Yılmaz, 2016).

In the light of this information, the Nine Types of Temperament Model is considered as a potential alternative model that can be used in educational areas where needs and individual differences such as motivation, interest, attitude and behavior come to the forefront.

NINE TYPES OF TEMPERAMENT MODEL BASED APPROACH IN ARCHITECTURAL PROJECT STUDIOS

The creation of design proposals is a mental process involving phenomena that are unique to the individual. In the design and learning process, learners need to be able to engage their emotions, thinking power, and experiences to be effective. Trainers and learners in studio studies are expected to think and decide together on a problem. Without doubt, personal characteristics, knowledge levels and cognitive styles of the two sides might vary. Despite these differences, the aim should be to establish a common language so that the project can be conducted in company. At this point, it would be appropriate to argue that the different personal qualities and temperaments of learners should be considered. It is thought that the same relationship cannot be established with each learner, and it will be more effective to approach each one in the way required by his/her temperament type.

Studio coordinators can use the Nine Types of Temperament Scale (NTTS) developed by Yılmaz et al. (2011) to detect temperament types. Through the results of data obtained from the scale, the studio coordinator will know which temperament type each of the learners has. In this regard, the probable conditions and results that might arise when a studio approach in accordance with learner temperament is chosen are summarized as follows.

The opinions and suggestions shared with the NTT1s, who are associated with a search for perfection, must certainly be based on reasonable justifications, which might lead them to be meticulous in their work. They will feel comfortable in a clean and tidy working environment and aim to create a perfect architectural project when their expectations are met. Since the levels of motivation for responsibilities given to them are already high, it will be helpful to provide them with guidance such as "What can we achieve if we approach this with an alternative viewpoint?", "How else can we solve this problem?", "I believe you can develop a number of in-depth solution offers." In addition to making learners who are idealist, hardworking and systematic responsible for tasks that they can overcome, giving them responsibilities for challenging tasks and revising their work with accurate information will contribute to enhancing their work performance.

The motivations of NTT2, who are associated with a search for feeling empathy, might increase when they are approached in an emotional and sincere manner during studio studies and with proposals that might excite them. It is important that they enjoy the project they work on and are satisfied with it. The use of expressions that will make them feel they are not alone when they need help will make them comfortable so that they can experience a successful project production process. It would be helpful to include evaluations regarding the emotional aspects of the work being carried out using expressions such as "You might have had a difficulty here. But we are here to help you. Let's think about the people who will use these places. What are their expectations? How can we create more comfortable work areas?"

NTT3s, who are associated with a search for admirable self-image, can work with pleasure when they are able to attract attention with what they do even when competition and stress dominate in the studio environment. With a success-oriented approach, they believe they must work under all conditions to achieve their goals. They will feel better in the working environment when their work is appreciated by the studio coordinator or their peers. They will not need external motivation very much if they work willingly and fondly. Approaching them with expressions such as "Is there a problem you are trying to solve?", "That the project has shortcomings does not mean that you failed.", "You may think that you are working inadequately today. It will be more beneficial if you can develop suggestions that are higher in quality rather than quantity." will create opportunities for success.

The quality of the relationship established with NTT4s, who are associated with a search for the meaning of feelings, can be enhanced by listening to what they have to say before criticizing or judging their work. Focusing on the meaning of the ideas they suggest will help them concentrate more easily on the work process. Creating a studio atmosphere that emphasizes different viewpoints will support the transfer of extraordinary and original ideas to the design process. By using expressions such as "You have suggested a very interesting idea for the project, but can you create drawings that more clearly demonstrate exactly what you want to say with that?", "I'm trying to understand what you think, but what else can you do to turn them into a more meaningful spatial organization?" to give them an opportunity to express themselves freely, and by sincerely trying to understand them, it is possible to help them create both meaningful and aesthetic designs.

NTT5s, who are associated with searching for the meaning of knowledge, tend to learn at the conceptual level. For this reason, it would be appropriate to help them think on an

experiential level by incorporating feelings into the design action. It is expected that experiences from studio studies will be beyond pure knowledge. To this end, it is necessary for them to feel that the functionality as well as the conceptual dimension of knowledge is important. Appreciating the knowledge they possess and avoiding accusations/judgmental manners during revisions will increase their motivation towards studio work. It might be necessary to guide them on analyzing the designed object or project in terms of functionality. With instructions such as "What kind of a place do you think is the place you are drawing?", "You should try to work more on this suggestion.", "I know that you can present your project by adhering to architectural narrative-transmission techniques. However, you should strive to design completely human-oriented and more livable spaces.", it is possible to help them display an effective study performance.

NTT6s are associated with a search for intellectual serenity and tend to question the reliability and consistency of information. It would be helpful to start with well-designed spots during studio criticism and then warn them over aspects that need more attention. They will have increased motivation if they fully understand what is expected of them and if they are confident in their decision-making. A clear indication of what needs to be done at the following stage of project development will ensure a productive studio process. It will be useful to base the design studies on a cause and effect relationship and to present the proposals through existing examples. They may find it difficult to decide when there are many options. It would be appropriate to set up a specific working discipline with clear boundaries using expressions such as "You reflect on the options for a while before choosing which one you feel is closest to yourself.", "This is your project, you can decide for yourself."

Since NTT7s, who are associated with a search of the pleasure of exploration, do not like taking continued advice, it is appropriate to use as clear and concise expressions as possible in project revisions. Since they tend to learn more from behavioral and experiential learning experiences rather than verbal transfers, it may be necessary to emphasize the criticism of designs through daily examples and showing them by drawing on paper. Although they appear to be very active in the studio environment, they are always open to exploring, experiencing, and learning. It would be helpful to use instructions that will capture their attention such as "This stage might be a little boring, but it is almost over. We will go on to the next stage.", "Now take a break from this work and think about what you find most interesting about your project. Then we will continue to work.", "How about trying it? It looks like it'll be interesting." During the development

of design proposals, giving them an opportunity to progress gradually by providing them with innovative ways to explore/try will increase their motivation.

NTT8s, who are associated with a search of absolute power, cannot easily state that they need help in the studio environment in order not to feel weak or hesitant. For this reason, they might need to be observed carefully at every step of their project work. Because they do not really enjoy being directed and helped, they may need to feel that they are being accompanied; not that there is an attitude towards their work. It would be useful to leave the project time management partly to their own control and avoid limiting or restricting them. Due to their habit of acting fast, they can experience some difficulties in the design process. They will tend to be angry and aggressive when they cannot get results in a brief period. Using expressions such as "You can stop and think about what you want to do before you get started." "There is no doubt that you can solve this problem.", "No one knows your project better than you do.", "Let's take a look at the decisions you made before applying them." might be helpful. A studio environment where they can exhibit and prove their achievements will increase their motivation.

NTT9s, who are associated with a search of sensorimotor comfort, generally follow a harmonious working process. However, they may not be able to express expectations easily to avoid disharmony in the studio environment. Therefore, it is useful to ask if they have any problems for which they need advice. When there are mistakes or problems during the development of the solution proposals, it is helpful to calmly use expressions such as "Let's try to solve this again with you now." and "Let's move together while drawing this part of the project." Avoiding dialogues that might cause conflicts and tension during the initial sketches of the architectural project, which is often seen as a painful process, can facilitate stepping into action. To increase their motivation in the design process, it is important to support them with what they can do and not force them to hurry.

As can be seen, effective communication will make it easier for learners to increase their involvement in the design process and learn how to access accurate information. In this regard, the present study offers various modes of communication for temperament types and presents clues about studio work.

CONCLUSION AND RECOMMENDATIONS
Knowing learners well and approaching them according to their temperament type are important to increase their motivation level and work performance in the studio environment. For students who draw on their own knowledge and experience as well as

that of their group friends, the studio becomes a creative context. This environment is enriched by the personality traits and experiences of individuals. Studio experiences acquired in previous years support the idea that learners create more successful architectural projects in academic terms when they are enthusiastic and willing to participate in the design process.

When they are guided according to their individual differences, learners will have a better command of the mental process they are in, be more willing to solve problems, and produce many high-quality solutions. That learners enjoy the design process will contribute to their motivation to their projects and help them better represent the end products. It will be possible to ensure that all learners who have high levels of individual motivation take an active role in group work, as well. Therefore, it is useful to try novel approaches that will increase participation, interest and motivation in the design process. It is important to use the Nine Types of Temperament Model during studio work to demonstrate the testability and usefulness of the model.

From the "learners" perspective, the Nine Types of Temperament Model might help them to

- communicate with the studio coordinator according to their own expectations
- express themselves freely in the studio environment
- participate actively in the design process
- participate in the project work with a high level of motivation

From the "trainers" perspective, it might help them to

- understand the characteristics of the basic temperament types
- be familiar with the personal, social and academic needs of individuals
- lead design processes according to temperament types
- contribute to project work in accordance with the expectations of temperament types

The main limitation of the study is that individuals are evaluated on their "basic temperament type." However, future studies might present a comprehensive view by including information about "temperament under stress," "temperament under relaxation," and "influencing wing temperament" in addition to basic temperament.

Trainers who think that it will be beneficial to understand learners well and approach them in the required way can enrich the learning process with various activities they will design. That the studio coordinator pursues an understanding, patient and harmonious

guidance approach will be effective in providing the scientific environment in which learners can fulfill their current and hidden potentials.

Further studies can be carried out to demonstrate the effectiveness of the model on academic achievement. The Nine Types of Temperament Model can be used in all courses, especially in architectural project studio, where individual differences and interpersonal relations are emphasized. It might be difficult to get to know learners well in lessons where the class population is high. It will be easier for the model to be tested in compulsory or elective courses carried out in the form of group work and in courses that are predicted to be fit for application in terms of class population.

REFERENCES

Akiskal, H. S.,Hirschfeld, R. M.,& Yerevanian, B. I. (1983). The relationship of personality to affective disorders. *Archives of General Psychiatry*, 40, 7, 801-810. doi:10.1001/archpsyc.1983.01790060099013

Akiskal, H. S.,&Mallya, G. (1987). Criteria for the "soft" bipolar spectrum: treatment implications. *Psychopharmacology Bulletin*, 23, 68-73.

Akiskal, H. S. (1998). Toward a definition of generalized anxiety disorder as an anxious temperament type. *Acta Psychiatrica Scandinavica*, 98, 393, 66-73.

Arkar, H.,Sorias, O., Tunca, Z., Şafak, C., Alkın, T., Akdede, B. B., Şahin S., Akvardar Y., Sarı, Ö., Özerdem, A., &Cimilli C. (2005). Factorial structure, validity, and reliabilityof the Turkish temperament and character inventory.*TurkishJournal of Psychiatry*, 16, 190–204.

Barrett, D. W.,Patock-Peckham, J.A., Hutchinson, G. T.,&Nagoshi, C. T.(2005). Cognitive motivation and religious orientation. *Personality and Individual Differences,* 38, 2, 461-474.doi:10. 1016/j.paid.2004.05.004

Cloninger, C. R.,Svrakic, D. M., &Pryzbeck, T. R. (1993). A psychobiological model of temperamentandcharacter.*Archieves of General Psychiatry*, 50, 975-990.

Costa, P. T. Jr.,&McCrae, R. R. (1990). Personality disorders and the Five-Factor Model of personality. *Journal of Personality Disorders*, 4, 4, 362-371. doi: 10.1521/pedi.1990.4.4.362.

Kılıçaslan, H.(2015). A study on applicability of creative drama method in architectural education. DoctoralThesis, Karadeniz Technical University, Institute of Natural Sciences, Trabzon, Turkey.

McDonough, J.,&Shaw, C.(2003). *Materials and methods in ELT: A teacher'sguide*. Oxford: Blackwell Publishing Ltd.

Selçuk, Z.,& Yılmaz, E. D. (2016). *Rehber benim*.Ankara, Turkey: MRK Baskı ve Tanıtım Hizmetleri.

Uluoğlu, B.(1990). Architectural design education: Design knowledge cummunicated in studio critiques. Doctoral Thesis, Istanbul Technical University, Graduate School of Science Engineering and Technology, Istanbul, Turkey.

Yılmaz, E. D.,Gençer A. G., &Aydemir, Ö.(2011). Evolution of a histrorical system to a new temperament model: Nine types temperament model. *Anatolian Journal of Psychiatry,* 12, 165-166.

Yılmaz, E. D.,Gençer A. G., Ünal, Ö., & Aydemir, Ö. (2014). From Enneagramto nine types temperament model: a proposal. *Education and Science,* 39,173, 396-417.