University Education and Creativity: An Assessment From Students’ Perspective*

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Problem Statement: This study consists of three main problems: first what university students understand from creativity, secondly what they conceptualize about creativity in university education, and finally their personal evaluations and recommendations about creativity in university education.

Purpose of Study: The study aimed to find out the perceptions, assessments, comments, experiences and suggestions of a group of fourth year university students related to university education and creativity.

Method: Designed as a qualitative research, phenomenological methodology was followed, data was collected using focus group interview and analyzed via thematic analysis.

Findings: The results indicated that students found their university education mostly as uncreative, and experienced with limited number of creative practices during their education, and they thought that university education did not contribute to their creativity potential in general.

Implications for Research and Practice: This study provided findings related to the meaning and evaluation of creativity as well as creative and uncreative practices, effect of university education on student’s creativity potential, and recommendations for university education as it was perceived by university students. It is expected that this research will lead to a broader scale research with the basic data it supplies. The research related to university education and creativity is limited in Turkey, and this study supplies basic and important findings.

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Introduction

In our today’s world, proposing new ideas, new applications and practice have significant importance as the social, economic and technological environment encourage “innovation”, “entrepreneurship”, “differentiation”, “customization”, and “novelty” etc. These concepts basically emphasize creativity and creative thinking. Creativity and creative thinking have many personal, cognitive, behavioral, and cultural dimensions as they include a multidimensional phenomenon. Creativity is substantial for the young adults to be able to cope with ambiguous, complex and fast changing world awaiting them. Since the university education is crucial to shape their career, creative thinking ability is assumed to be effective for students’ intellectual abilities and capabilities.

On the other side, universities question their education from the aspect of novelty, adaptability and technology whether they fit the needs of young adults for their future career. University education can be considered as the last step for young learners to be ready for their creative thinking capacities, potentials and abilities to cope with the volatile and uncertain future, where they are expected to act as “change agents” or “future-makers” to be able to survive in the future environment.

This research proposes that students are creative and possess creativity potential as many researches pointed out in various studies (Amabile et al. 2005; Craft et al. 2001; Lakota,2007). Yet, creativity potential is subject to environmental factors. It can be supported, encouraged and cultivated as well as weakened, suffocated and even killed (Robinson, 2006; Seeling, 2012). The education system may lead the students mainly to memorize or to think. Drucker (1969) argued that all a student could do is to repeat what somebody had already done which would not require creativity. As Scott (2000) stated higher education systems are powerful tools not only as “knowledge factories” certainly, but also as “open zones” in which social transformation and cultural creativity can occur. Higher education needs to prepare young adults for a fast-changing working environment.

This study focuses on a group of university students as an interactive social area. There has been many studies related to elementary schools and creativity in Turkey (Ucú, 2017). However, there is a lack of research among university students when it comes to creativity in general (Papaleontiou-Louca et al. 2014, p.138).

Creativity in university education concerns teaching for creativity as well as teaching creatively (Papaleontiou-Louca et al. 2014, p.138). Teaching for creativity is acknowledged as forms of teaching that are aimed to develop young students’ own creative thinking or behavior, and teaching creatively accounts for “using imaginative approaches and applications to make learning more interesting and effective”. Teaching for creativity must involve creative teaching techniques (Morris, 2006, p.4). However, this study does not aim to determine the difference or emphasize the effects of teaching for creativity or teaching creatively. This study aims to clarify the understanding of a group of students and how they assess their university education from the point of creativity. In this study, researchers aim to discuss the present situation related to university education and creativity at a Turkish state university.
through a group of fourth year students and get their views and comments in detail. Fourth year students are considered under this research as they are more experienced compared to the previous year students.

**Literature Review**

Creativity is a multi-dimensional concept and it has been generally accepted that creativity is a complex concept for which there is an absence of a particular definition (Prentice, 2000). Various definitions of creativity point out new, original ideas, knowledge etc. which would result in a change or a social or technological value: “the achievement of something remarkable and new, something which transforms and changes a field of endeavor in a significant way…. The kinds of things that people do that change the world” (Feldman et al. 1994), and “a person’s capacity to produce new or original ideas, insights, restructurings, inventions or artistic objects, which are accepted by experts as being of scientific, aesthetic, social, or technological value” (Vernon, 1984). This process is defined as an exceptional human capacity: “exceptional human capacity for thought and creation” (Ryhammer & Brolin, 1999). Costello (2000) argued that creativity involves problem solving, i.e. thinking “outside the box”. All these efforts are stated to be “unique” and “original”: “the ability to produce something novel, something that is unique and original” (Torrance, 1970). Plucker et al. (2004) came up with the following definition: “Creativity is the interaction among aptitude, process and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social group”. In addition, “Creativity is rated among the most important human mental attributes or human capital that is considered by researchers as the driving force behind economic development, technical advances, work place leadership, and life success” (Chew et al. 2017).

In education, the most common assessments of creativity are the Torrance Tests of Creative Thinking (TTCT) which are still the most popular creativity assessment tools in education settings. Torrance identified four components by which individual creativity could be assessed: “fluency: the ability to produce a large number of idea; flexibility: the ability to produce a large variety of ideas; elaboration: the ability to develop, embellish, or fill out an idea, and originality: the ability to produce ideas that are unusual, statistically infrequent, not banal or obvious”. Having a psychodynamic approach, Torrance (1969) searched the place of creativity within education. He focused on the four P’s of creativity as “the creative person, the creative product, the creative process and the creative press”. He proposed that creative thinking be rewarded in schools because it allow students to understand how better to achieve their potentialities. However, more recently investigations focus on understanding and evaluating the creative mind in terms of intelligence (Gardner, 1995).

Besemer and Treffinger (1981) classified creativity into components as: “novelty of how new the product is in terms of techniques, processes, concepts, the capacity of a product to spark further creative products inspired by it; the potential of a product to
'transform', or create a radical shift in approach, resolution the extent to which a product meets a need, or resolves a situation, synthesis the extent to which a product combines elements which are unlike, into a coherent whole”. In addition, Glăveanu (2018) proposed that educators should be much more reflexive when using definitions, theories or assessment tools for creativity, and notice which kind of creativity they recognize and which kind they ignore. Creativity in education has received strong concern since 1950s basing on the idea that education needs to prioritize the development and encouragement of creativity (Papaleontiou-Louca, et al. 2014). The success of the Soviets to launch the first artificial satellite, Sputnik, is another development that has accelerated creativity efforts (Özaşkın & Bacanak, 2016). Mostly starting from 1950’s, education professionals tried to develop many strategies about how to cover creativity in education (Craft, 2001). Jackson et al. (2014) searched the views of academic teachers on the core features they associated with being creative in eight disciplinary areas and discovered certain features as: “being imaginative, being original, being curious with an enquiring disposition, being resourceful, being able to combine, connect, synthesize, being able to think critically and analytically, being able to represent ideas and communicate them to others”. Amabile (1983) proposed a simple model of creativity and determined three essential elements as expertise, the ability to think creatively about relevant problems and opportunities, and the will to engage. Jackson (2014) added context to this model as context gives the reasons for being creative. This model suggests that creativity requires a context to support creativity, e.g. cultural, technological, teaching environment, and it is an interaction of expertise, task motivation, and creativity skills. Kaufman and Beghetto (2009) proposed that creativity lies on a continuum and follows continuous progress and change to be investigated. Their four category model of creativity tries to investigate the nature, scope and influence of individuals’ creativity starting from mini-c to little-c, pro-c and big-c. “Pro-c” creativity is associated with creative acts of people who have mastered a field, including, but not only, people involved in Professional activity; “little-c” creativity is the everyday creative acts of individuals who are not particularly expert in a situation; and “mini-c” is the novel and personally meaningful interpretation of experiences, actions and events made by individuals. Both mini-c and little-c forms of creativity are relevant to higher education learning and curriculum designs, and teaching and learning strategies could usefully be used to encourage and facilitate them. They pointed out the fact that if students are not encouraged to be creative, they may stay on the mini-c, and if they are encouraged, they may go further on the continuum. Torrance (1965) examined the attitudes of over 1000 teachers in five different countries and found out that teachers were rewarding students for being well mannered, doing work on time and being obedient, popular and willing to accept the judgements of teachers, but on the other hand punishing students who were good at guessing, questioning and who were daring in their opinions. This approach is still considered widely and prevails in many educational establishments of today.
(Papaleontiou-Louca, et al. 2014). However, creativity needs change and change needs going out of what is standard. Teachers need to change their standard views if they want to have creative students. Developing contemporary education policies and strategies, and teaching creativity and innovation professionally in educational programs are not enough alone, and teachers who will apply them must implement contemporary approaches to creative behavior (Ozmusul, 2012).

Today’s universities are supposed to be in parallel with Industry 4.0 which requires interconnected, digital services and a new view on teaching and learning. This requires the application of innovative procedures and approaches. It requires young adults with a strong sense of self-confidence and desire for being original, creative and able to cope with big data. If students are to become unique, autonomous individuals, they need to feel worthy, competent and trustworthy. However, the education system does not promote and welcome creative thinking well enough because in some cases creativity does not “go with” the curriculum, the education system has focused and promoted “parroting” which is the favored and “right/correct” way to learn although it may result in uncreative ways of teaching (Papaleontiou-Louca, et al. 2014). University education is expected to be far from creating similar “parrots”, but rather it concentrates on achieving individuals who will be able to take risks and be innovative. University education needs to be far from “memorizing” and concentrate on knowledge production rather than knowledge adoption. Cachia et al. (2009) also mentioned that although students are viewed as the center of teaching and learning processes and procedures, they do not have an active role in general.

In high level education, teaching practices should focus on more than promoting the transmission of contents and routine information (Deverell & Moore, 2014), and they should train students to inquire and investigate, problematize, take risk, think, evaluate, and act critically with high self-confidence. They should also include a diversity of approaches, enthusiasm for teaching and the promotion of curiosity, self-regulation and intrinsic motivation for the progress of creativity (Hargreaves, 2008; Sternberg, 2004). In addition, assessment of the students and the criteria of success will need to be changed (Boud & Dochy, 2010). The success criteria will need to include more than grades, and will need to be based on some outputs like projects, thesis, systems or ideas proposed.

Students sometimes learn to repress or hide their talent of creativity because they might not get a “good grade”. Although they are expected to be creative, creativity is seldom a clear objective of the assessment procedures. Overall student grades usually consist of quizzes, assignments and participation, and these usually form the main method of assessment. Many students from different fields of study differ in their perceptions of creativity (Glück et al., 2002). According to the results of a study involving 264 students at a foundation university operating in Istanbul, a positively significant relationship was found between innovation tendency and entrepreneurial potential that was linked to creativity potential (Ensari and Alay, 2017).

In addition, a study using CREA (Creativity tool to measure) applied to 17 students found no differences between sexes (Carrasco, 2017). Creating classroom environments
in which creativity is highlighted and used is important in terms of increasing the quality of education (Karaca & Koray, 2017). Artistic endeavors like painting, music, handicraft, and dramatic arts like literature, cinema, and theatre are important in promoting students’ life and creativity (Wales, 2017).

Method

Research Design

A qualitative approach was selected to find out the perceptions, assessments, comments, experiences and suggestions of a group of fourth year university students because qualitative research is more involved with understanding individuals’ perceptions of the world, and investigating insights rather than statistical analysis (Silverman, 2005). Designed as a qualitative research, a phenomenological methodology was followed. Phenomenological methodology aims to understand the experiences of the individuals about a phenomenon, defines what an individual is experiencing, and describes the essence of an individual’s experiences (Saban & Ersoy, 2017).

Research Sample

The research was conducted in a faculty in a state university, in the city centre of Antalya in Turkey. A non-probability sample was preferred as the sample derives from the researcher targeting a particular group, in the full knowledge that it does not represent the wider population, it simply represents itself. This is the frequent case for qualitative research such as action, ethnography or case (Cohen et al. 2007). The participants in this study were tourism faculty fourth year students who had an overall GPA higher than the class average. The students were invited to the study by one of the researchers. There were seven female and three male students who accepted to participate in the study. Eight of the participants were 21 years old, one of them was 22, and one of them was 20 years old.

Research Instruments and Procedures

Data was collected via a focus group interview. Focus group interviews provide rich and high variety information which quantitative research may not supply as well as providing in-depth data and preventing misunderstandings (Çokluk et al. 2011). Focus group is a form of qualitative research involving interviews in which a group of people are asked about their perceptions, opinions, beliefs, and attitudes about a concept or topic. A focus group is formed by people from similar backgrounds or experiences to discuss a specific topic of interest, guided by a moderator who introduces topics and helps the group to participate in a lively and natural discussion atmosphere. Focus group is a qualitative analysis method investigating the recent context and its content (Creswell, 2016). It usually consists of eight people (Baş & Akturan, 2008). The number of people may change between four to 15 people (Çokluk et al. 2011). Phases of focus group interview is planning and organizing the focus
group, group composition, conducting the focus group, recording the responses, analyzing data, and reporting the findings (Dilshad & Latif, 2013).

Data were collected in May 2018. This included a 120 minutes recorded focus group interview with the participants. The answers of the participants were recorded upon their permission. Data were collected in the meeting room in the Faculty, participants sat in a round form, and there were the two researchers and the participants. One of the researchers acted as the moderator and the other acted as an observer and took notes during the session.

Data Analysis

Thematic analysis was used to analyze data. Thematic analysis is a “method for identifying, analyzing and reporting patterns (themes) within data” and “it is a flexible and useful research tool which provides a rich and detailed, yet complex, account of the data” (Braun & Clarke, 2006). Data analysis began with readings of interview transcripts from focus group interview conversations with fourth year university students. The purpose was to determine the essence of the phenomenon and experiences of students amidst factors affecting their creativity potential to understand the perceptions, assessments, comments, experiences and suggestions of a group of fourth year university students.

During thematic analysis, data were organized categorically, reviewed repeatedly and coded continually. Interview transcripts were reviewed. The recorded data were listened for three times, converted to written form; data were grouped into themes and sub-themes by two different researchers, and the groupings formed by the researchers were found to be matching which proved the validity of the study. Quotations were listed upon each person’s relevant sayings as P1, P2, P3, P4, P5, P6, P7, P8, P9, P10 demonstrating participant 1, 2, etc.

The mapping of interview questions was carried out in three stages: general questions about creativity, questions about creativity and university education, and questions related to their personal recommendations. Firstly, they were asked about the meaning of creativity. Secondly, they were asked to evaluate the university education they had from the point of creativity. Next, they were asked how they would define the creative and uncreative practices in their university education. After they were asked how the university education affected their creativity potential, they were asked about the factors that influenced creativity and whether there was an increase in their potential. Finally, they were asked for their recommendations for creativity in university education.

Results

The findings of the research can be grouped under six main themes as the meaning of creativity, creativity in university education, creative and uncreative practices in university education, effect of university education on student’s creativity potential, factors influencing creativity, and students’ recommendations.
Meaning of Creativity

Meaning of creativity is defined as a kind of imagination, thinking differently, completing what is lacking, and being different than what is common. Theme, subthemes, codes and frequencies are listed on Table 1.

Table 1
The Ideas Of Participants Related To The Meaning Of Creativity And Their Frequency

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>f</th>
<th>%</th>
<th>Codes</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning of Creativity</td>
<td>Differentiation</td>
<td>14</td>
<td>56</td>
<td>Different actions</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Different ideas</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Different results</td>
<td>3</td>
</tr>
<tr>
<td>Novelty</td>
<td>Imagination abilities</td>
<td>11</td>
<td>44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New abilities</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>New environment</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>New products</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

According to P1, “Creativity is a kind of imagination, I can say new methods, practices”. P2 said creativity was about new ideas and putting them in action. P3 said creativity was about new methods which were different than all the present applications. P9 said “I think creativity is to present a product which did not exist before, and to create differentiation in this sense”. P6 said it was establishing novelty, however this novelty was like the realization of something uncommon. P8 described creativity as the application of things that were not seen before and the ones who could achieve this were creative. P7 explained creativity as completing something that was lacking in some way.

Creativity in University Education

Creativity in university education reminds diversity in education, creative lessons, different applications, entrepreneurship and intellectual encouragement.

Table 2
The Ideas of The Participants Related to Creativity in University Education and Their Frequency

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>f</th>
<th>%</th>
<th>Codes</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity in university education</td>
<td>Differentiation</td>
<td>11</td>
<td>38</td>
<td>Different lessons</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Different seminars</td>
<td>3</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>Entrepreneurship</td>
<td>10</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lessons</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Practice</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Teaching methods</td>
<td>Creative methods</td>
<td>8</td>
<td>28</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Using arts in teaching</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
P1 said that creativity in education was to teach different things that could be applied which would not be customary. P9 said that “When we talk about creativity in university education, lessons that will increase creativity come to my mind. These can be different practices in lessons, seminars, projects etc.” P2 talked about different methods to be applied in teaching. P3 said that university education should include more different things and should be appropriate for practice. P1 said that university education is limiting their creativity as a result of the standard methods of teaching: “We see slides in lessons and we are restricted. We do not disseminate our own ideas; this is how university education is”. When talking about creativity in university education, entrepreneurship came to the mind of P7. P4 said that there was too much theory but no practice.

Creative and Uncreative Practices in University Education

Participants were asked about their comments related to the creative and uncreative practices in university education. Table 3 shows their comments and their frequency.

Table 3
Creative and Uncreative Practices in University Education and Their Frequency (N=10)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>f</th>
<th>%</th>
<th>Codes</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative and uncreative practices</td>
<td>Teaching methods</td>
<td>17</td>
<td>74</td>
<td>Memorization</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Traditional Teaching</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No creativity</td>
<td>4</td>
</tr>
<tr>
<td>Creative applications</td>
<td>Sector communication</td>
<td>6</td>
<td>26</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Watching films</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Documentary</td>
<td></td>
<td></td>
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<td>1</td>
</tr>
</tbody>
</table>

P10 said that he had not seen any kind of creativity in the first three years since university gave only preliminary information. P9 mentioned that the first two years were completely memorization, and the examinations were tests which in a way prevented students to think. P7 told that there was no system to make students think differently. P6 said that creativity could be with practice, and some lessons could be given related to creativity. P4 said that except for a few lessons, they memorized completely. P3 said that there were lessons just to fill the curriculum, and added “We saw the alternative tourism topics in introduction to tourism. I wish we went for internships in the first term instead of unnecessary lessons, though they may be theoretical, and I wish we went for internships in the second term, this would be more logical. If we went to internship directly and to places that would add something to us, this would have been better”. P5 said that especially in the first two years, they didn’t need to think.
Effect of University Education on Student’s Creativity Potential

Effect of university education on student’s creativity potential was perceived as neutral by 50 %, and 40% of the students believed that their creativity potential decreased, and 10 % thought that university education increased their creativity potential. Table 4 shows the theme, subtheme, codes and frequencies.

Table 4
Participants’ Thoughts Related to The Effect of University Education on Student’s Creativity Potential and Their Frequency (N=10)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>f</th>
<th>%</th>
<th>Codes</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive effect</td>
<td>Self confidence</td>
<td>7</td>
<td>32</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Different thinking</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Network</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Negative effect</td>
<td>Loss of time</td>
<td>10</td>
<td>45</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loss of energy</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Neutral effect</td>
<td>No change</td>
<td>5</td>
<td></td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

According to P9 “...university education increased my creativity, however not on the level that I imagined, but I also don’t think that it decreased”. P8 said that it increased by the efforts of some of the professors. P7 said that it was on the average. P6 said “In my opinion, university education decreases creativity, they don’t show us different points of view, if we focus on the topic, we can reach all the topics that we have been taught from any book. It is a loss of time”. P5 said that she didn’t take anything from the lessons in the university: “I think it decreases creativity. I came here from Istanbul. When I was there, my opinions were brighter, here I am only molded somehow. I also didn’t take anything from the lessons at the university, I only got something when I made internship”. P10 said that university education increased his creativity potential, and the reason why they were at the university was to know the sector and develop themselves.

Factors influencing creativity

Factors influencing creativity are declared to be Professors, Environment, Society, Lifestyle, Families, Friends, Traditional way of life, Trial, Books, Films, Activity groups, Economic conditions, Place of birth, Different places and people, Learning, Observation, Fashion, Growing up in a small town, and Social media. Table 5 demonstrates participants’ ideas related to the factors influencing creativity.
Table 5

Participants’ Ideas Related To Factors Influencing Creativity and Their Frequency (N=10)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>f</th>
<th>%</th>
<th>Codes</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors Influencing Creativity</td>
<td>People influencing our</td>
<td>10</td>
<td>29</td>
<td>Professors</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>education</td>
<td></td>
<td></td>
<td>Families</td>
<td>4</td>
</tr>
<tr>
<td>Person by himself</td>
<td>Self-interest</td>
<td>11</td>
<td>31</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Perception</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Environment</td>
<td>Place born</td>
<td>14</td>
<td>40</td>
<td>School</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Books</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Social environment</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Economic environment</td>
<td>2</td>
</tr>
</tbody>
</table>

P1 said that people around him, his professors and himself could influence his creativity. P2 said that creativity would be more influenced by the environment and mostly by the ideas of professors. P3 declared that the society, lifestyle, socio-economic conditions, family and friends would influence creativity. P4 also said that family and traditional way of life would influence creativity. P5 said that observation and trials would influence creativity. P6 said “I think creativity would be affected by books, films, activity groups that we belong to, also by economic conditions we live in. If you are not trapped in a cage, you will be creative but if you are trapped in a small place since you were born, you will not be creative, it comes from your family.” P7 said that different places, another country or society would influence creativity. P9 said that observation skill might have an affect as well as fashion and the place a person grew up.

Recommendations

The recommendations of the students for a more creative education are listed as meeting with professionals from the sector, lessons to be more interesting, no attendance obligation to lessons, attending hobby activity clubs, being let free, no memorization, more practice, more contact with professors, and encouragement by professors. Table 6 lists the theme, subthemes, codes and frequencies.
Table 6
Recommendations of Participants Related to Creativity in University Education and Their Frequency (N=10)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>f</th>
<th>%</th>
<th>Codes</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendations for university education creativity</td>
<td>Freedom</td>
<td>9</td>
<td>29</td>
<td>Attendance obligation</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Choice of interest</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method of teaching</td>
<td>22</td>
<td>71</td>
<td>Free environment</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No memorization</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>More practice</td>
<td>6</td>
</tr>
</tbody>
</table>

P1 said that he wished he could meet with more professionals so as to have a different vision. P2 said “… the lessons should be more attractive and there should not be an obligation for attendance to lessons. Since it is obligatory, I do not want to listen to the lesson”. P7 said that the attendance obligation did not make her feel well, and she played with her phone during the lessons. P6 recommended that the newcomers could attend the social clubs, traveling club, etc. to increase their creativity. P5 said that students should be left free to develop creative thinking. P4 said that professors could follow more creative and efficient way of teaching to initiate the creativity potential of students.

Discussion, Conclusion and Recommendations

The findings of the study regarding the meaning of creativity are consistent with the findings of many studies (Dacey et al.1998; Feldman et al. 1994; Rhyammer and Brolin, 1999; Torrance, 1970; ). Some students concerned creativity to be related with entrepreneurship as it is also mentioned by Ensari and Alay (2017).

The evaluations of a group of university students related to creativity in their education indicated that they found creativity affecting their intellectual skills. They considered creativity to be an important issue to influence their personal development as well as their future career. The learning environment of universities seems to have an influence on the creative performance (Barron & Harrington, 1981; Oldham & Cumming, 1996; Scott & Bruice, 1994). However, almost half of the students thought that there were no changes in their creativity potential, and more than half of them thought that university education even decreased their creativity potential. Therefore, university education system, curricula, teaching techniques, as well as assessment techniques need to be revised as universities may have a considerable role in enhancing creativity which is supposed to influence students’ future career and life. Universities have a significant role as preparing students for future challenges and opportunities, by supporting their flexibility and creativity, in order to have students of the future “with skills to manage life” (Sternberg, 2004).
Creativity is influenced by intrinsic and extrinsic factors. The findings of this study indicated that young adults found their environment, society, lifestyle, family, friends, fashion etc. influencing their creative abilities. What is interesting from this study was their belief about the effect of their relationship with their professors at the university. They thought that their relationship might have an influence on their creativity potential. This points out the influence of professors on young adults' creativity.

Amabile (1983) and Jackson's (2014) model of creativity points out three main areas and context. The results of this study support the effect of context as relationships with professors, curricula, university and education culture to support creativity; and secondly teaching staff as expertise in creativity and the motivation and skills of the students. The motivation of the students was observed to be high and they expressed that they were willing to participate any novel application and research.

One of the main interesting points as a barrier for creativity is the memorization pressure. Students found this situation as threatening their creativity potential. This view supports some of the researchers criticizing university education to create “parrots” through rote memorization skills (Papaleontiou-Louca, et al. 2014), and students not having an active role and creativity not playing a central role (Cachia et al. 2009).

The research results point out critical information to consider about creativity for the research group. First, creativity in university education is underestimated and not given considerable attention in general. The students do not feel to establish or develop creative skills, practices, experiences and applications. Only one of the students think that university education contributed to her creativity potential. This main result of the study is contradicting the vision of raising highly qualified human power who will be ready for Industry 4.0 age in a fastly changing, competitive, innovative and challenging environment as they can see no progress in their creative abilities and critical thinking process.

University education needs to be taught creatively and creativity should replace the pressure of memorization. Besides, students want to feel free and want to express themselves. University teachers can try to be “information guides” instead of being “information exigents”. Thirdly, Turkish students find a strong correlation between entrepreneurship and creativity, therefore university curricula can involve more entrepreneurship lessons or applications.

In summary, the mission of university as to contribute to the intellectual potential of the people of future from the point of creativity needs to be reconsidered. Systematic concern can recover the curricula, research abilities, coordination with industry, less memorization pressure, and freedom to produce new ideas and projects. The students need less pressure to memorize and have the opportunity to investigate and create their own ideas based on observation, knowledge, and experience.

University academicians and instructors should be aware of creativity and be ready for it in the context of their education. It is a serious fact to consider creative teaching and evaluate the results. Otherwise, all efforts will be wasted, and the creative
and innovative thinking model of the individual will be a dream. The importance of valuing creativity in teacher education should be emphasized.

Students usually have a willingness to learn more and improve their thinking and creativity skills because of the increasingly volatile, uncertain, complex and ambiguous world awaiting them, they need to be ready for the future. They need to know their creative abilities, their potential, and they need creative thinking abilities as the “change agents” of the future. They need more imagination and less pressure to memorize. Imagination and creativity have a power that keeps us apart from everything in the world, and that is what makes a difference (Robinson, 2015). They need to learn about risk taking and failures and how to learn from their failures.

Cultural differences in every society has an impact on teaching systems. It is a fact that creative teaching and teaching for creativity cannot be standardized as well as the education in general. Therefore, each country should establish its own model for creativity especially in teacher education, and secondly in education in general. Because a model successfully applied by a country cannot guarantee the same results if applied in other countries in the same way (Özmusul, 2012).

The contribution of this study for future studies is that the results give important clues to revise and examine the university education. Young learners need more potential for innovative thinking, self-confidence, imagination, and divergent thinking (Craft, 2001).

Universities all over the world are in the era of transferring into fourth generation universities. They aim to form links and projects between government and industry through academic consultancy, research and development centers, programs, entrepreneurship projects, and student-industry collaboration (Papaleontiou-Louca, et al. 2014). This new era requires innovation and creative thinking abilities, risk taking, problem solving, being “change agents” and being “future oriented”. For this purpose, universities need new tools like digital simulations, games, project-based lessons, research and development centers, and students need more practice rather than memorizing what is already known. The findings of this study indicate that students want to get close to the professionals, and they want to be more experienced before they are graduated from the university.

The university of the future will have its main focus as “improved thinking skills and creativity, it will expand its reach to untraditional areas, change the mix of its offerings, broaden its student base, and develop more creative delivery of learning ways” (Papaleontiou-Louca, et al. 2014). People of the future will need to think creatively, develop new ideas, products and services, new jobs, new processes and methods, new ways of thinking and living, new enterprises, new sectors, new business models, and new social models. Increasingly, innovation and creativity spring not from individuals thinking and working alone, but through cooperation and collaboration with others to draw on existing knowledge to create new knowledge (OECD,2018).
Finally, creativity is a multi-dimensional concept and it needs a systematic view as stated by Kaufman and Beghetto (2009). It starts with as a mini-c and evolves to pro-c. Also, it needs a framework (Dewulf & Baillie, 1999) as CASE. The study findings indicate that students think that their creativity is influenced by many factors like professors, environment, family, friends, society as mentioned above. Creativity in education should not be limited to university education, in reverse it should be considered in the whole body of the education system. “It seems that teaching for creativity will not be explored unless it adds value to the learning process, the individual and to the university, government, industry and the community stakeholders” (Papaleontiou-Louca, et al. 2014). Therefore, it will be beneficial to search for creativity in the future studies from many aspects.

References


Üniversite Eğitimi ve Yaratıcılık: Öğrencilerin Bakış Açısından Bir Değerlendirme

Ateş:

Özet


Araştırmanın Amacı: Araştırma, bir grup dördüncü sınıf öğrencinin üniversite eğitim ve yaratıcılıkla ilgili algılarını, değerlendirmelerini, yorumlarını, deneyimlerini ve önerilerini bulmayı amaçlamaktadır. Araştırma kapsamında nitel araştırma yaklaşımı benimsenmiştir. Öğrencilerin algı, yorum, tecrübe ve önerileri değerlendirilmektedir.


Araştırmanın Bulguları: Bulgular, öğrencilerin üniversite eğitiminin çoğunlukla yaratıcı bulmadıklarını ve eğitimleri esnasında sınırlı şekilde yaratıcı uygulama deneyimlediklerini ve üniversite eğitiminin genel olarak yaratıcılık potansiyellerine katkıda bulunmadığını düşündükleri göstermektedir. Yaratıcılığın anlama farklılaşma ve yenilik olarak iki ana temadada ifade edilmiş ve bu temaların altında ise yeni eylem, fikir, sonuç, hayal etme, türün ve çevresel kavramları yer almıştır. Üniversite eğitiminde yaratıcılık kavramı altında öğrenciler, farklılaşma, girişimcilik ve yönetme metotları gibi ana temalardan bahsetmişlerdir. Farklılaşma teması altında farklı dersler ve seminerler olmasının eğitimde yaratıcılığı destekleyecğini; üniversite eğitiminde girişimcilliğin onlara yaratıcılığı anımsattığını ve bu amaçla girişimcilik ile