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An Assessment of Students’ Recreation Participation

Meryem Akoğlan Kozak, Ece Doğantan
Anadolu University, Eskişehir, Turkey

Recreational activities have psychological and social contributions in addition to individual recreation, and are extremely important especially for university students in development of healthy personality and establishing positive social relations. Continuation of a student’s recreational activities after graduation, which has commenced at school, is quite significant in internalization of recreational awareness. The student’s decision to continue a recreational activity in the future is dependent on the experiences of the student in this activity. This study aims to reveal detailed information about the recreation experiences of the students. Thus, the primary objective of the study was to access the information on preferred recreation activity categories, recreation experiences, and the intent to continue these activities. In the study, quantitative research approach was adopted and survey form was applied to a sample of 268 students who were registered to student clubs in the university. Factor analysis, correlation, and regression analysis were used in the analysis of the survey data. Result of the factor analysis conducted on the “Recreation Experience Preferences” (REP) scale items, it was determined that the scale was structured in seven dimensions of “physical exercise and rest,” “learning about new and different objects and people,” “leading and introspection,” “achievement,” “escape from personal-social pressures,” “learning about culture, arts and nature,” and “human relations” and REP scale could be used to assess recreational experiences as well as the determination of recreational preferences. The findings of the study determined that the students preferred social recreation activities the most, followed by cultural, artistic, and physical recreational activities. Student participation frequencies based on activity categories could be sorted as social, artistic, cultural, and physical, respectively. As the students’ participation frequency in recreation activities increased, the experiences acquired increased as well. Thus, it was observed that as the frequency of participation in social, cultural, and artistic categories increased, the experiences in “learning about to nature, culture and art” and “escape from personal-social pressures” increased accordingly. The findings of the study determined that the dimensions of experience acquitned as a result of recreational activities of “leading and introspection” and “human relations” were effective on the intent of the students on sustaining the related recreational activity. Thus, applications that would help students to spend their leisure times in sustainable activities to become physically, mentally, and socially healthy individuals in the future and would develop their experiences in the dimensions of “leadership” and “human relations” should be prioritized.

Keywords: recreation experience, recreation activities, intention to continue

Introduction

Recreation, albeit related to individual needs, is a social concept and it is significant on especially the
healthy personality development, ability to form positive social relations, and achievement of emotional vitality and energy of the youth that experience psychological and social growth. Thus, university students, who are at a significant phase of education process, in addition to gaining proficiency in their field of study, should achieve recreational experiences that would enable efficient use of their spare times. The manner students make use of their spare times and the recreational experiences they achieve as a result, are closely related to the opportunities provided for them. Although the family, the environment the family lives in, friendly relationships, and mass communication tools are effective on recreational activities, universities provide experiential environments where students could develop different areas of interest. Previously, there was a doubt that recreational activities did enrich the students culturally, develop their personal interest and orientations, affected their physical, mental and cognitive health. Today, recreation is considered as a significant part of the educational process in several countries (Karaküçük, 2008, p. 141). Thus, student clubs in universities organize various recreational activities by approaching the recreational services via organizational initiatives. These activities, by affecting the personality development of students, support their socialization as well as provide conditions to gain experiences that would be part of their whole lives.

Continuation of the recreation experiences after the graduation, which are shaped by various activities during participation in recreation, is quite important for the lifelong physical-mental health of the youth and a balanced social life (Kaba, 2009, p. 47). Thus, development of recreation in universities is considered as a significant part of lifelong education (Müftüler, 2008, p. 3). The objective of the study, therefore, is to determine the effects of the experiences Anadolu University students had as a result of recreation activities they participated on their intention to continue these recreation activities in the future. In addition to the main objective, it was also aimed to determine the participation frequencies of the students to recreational activities based on categories and to assess on which experience dimension these experiences were concentrated. The study is significant, since it provides consciousness for the students on recreation activities and guidance for practitioners in planning, development, and management of recreational experiences.

**Literature Review**

**Concept of Recreation and Its Categories**

Starting from the introduction of technology in human life, the individual, who became a part of a complex and immense work schedule, was in search for a way out of this stressful routine. This search caused humans to allocate their spare times remaining from the activities that were conducted to provide for their existence, in a planned or unplanned manner, for recreation that would replenish them physically and mentally (Günaydın, 2011, pp. 13-14). The word “recreation” has its roots in Latin recreatio, which means revitalization, recreation, or restructuring (Ozankaya, 1980, as cited in Karaküçük, 2008, p. 58). According to this fundamental approach meaning recreation, it is defined as replenishing, resting, and volunteer activities engaged in after compulsory duties and activities (Kraus, 1985). However, today, recreational activities are practiced not only for revitalization, but also for sightseeing, pleasure and entertainment, rest, health, education, socialization, to have different experiences, to get away from the daily routine, and self-realization (Driver, 1983; Köktaş, 2004, p. 126; Karaküçük, 2008, p. 58). Most of the recreation definitions in the literature are activity-centered. Thus, recreation is explained as volunteer participation of individuals in activities with an impulse of entertainment and satisfaction (Leitner & Leitner, 2012, p. 4). According to another activity oriented approach, recreation is the participation of individuals, due to various motivational factors, to various activities.
indoors or outdoors, actively or passively, in urban areas or in the countryside (Karaküçük, 2008, p. 58). Ministry of Culture and Tourism defines recreation as activities that people engage during their free time, using their free time independent from compulsory work activities, to mend their physical strength and enrich their mental capacity, selected freely unlike compulsory activities, and meaning a change in physical and social environment (KTG, 1989, as cited in Günaydın, 2011, p. 20).

Recreational activities are realized voluntarily, in individuals’ spare time, along with their personal preferences. These activities elected by the individuals freely and do not require compulsory attendance, could be practiced individually or in groups and they could be planned or unplanned. There is no specific limitation of space in recreational activities. These flexible activities could be practiced in all indoor and outdoor spaces and in all seasons and under all climate conditions (Karaküçük, 2008, pp. 71-75). Recreational activities are usually practiced in groups and individuals that take a role in these type of social groups enter into interactive relationships, and thus it could be argued that recreational activities play a significant role in socialization of the individual (Köptaş, 2004, p. 105). Especially the success of recreational activities conducted in groups is dependent on the leader and it is observed that group’s structural characteristics and internal dynamics are effective in the achievement of the leaders (Kozak & Yüncü, 2008, p. 74; Kozak & Çakır, 2012). Recreational activities create a common language for all people and could be performed by people of all ages, gender, and social status (Leitner & Leitner, 2012). As a result, recreation represents an experience that derives from the participation of individuals in recreational activities (McLean, Hurd, & Rogers, 2005; Leitner & Leitner, 2012).

Recreation is a broad concept and differs from one culture to another and from one individual to other. This fact created different categorizations of recreation. For instance, Dumazedier (1968, p. 6) divided recreational activities into five main categories. These are: “physical,” such as walking, sports, and traveling; “artistic,” such as in being interested in different branches of fine arts; “practical/applied works,” like handicrafts; “intellectual,” such as reading and increasing one’s knowledge; and “social,” such as in entertainment and visits (as cited in Akınç, 2011, p. 13). Akasen (1978), in additional to recreational features, divided recreation into different categories of commercial, social, international, aesthetic, physical, and forest recreation based on administrative purposes (as cited in Karaküçük, 1997, p. 70). Raghep (1989) created a more comprehensive categorization. He categorized the activities as “mass communications,” such as watching TV and going to movie theaters; “cultural,” such as in concerts, museums, opera, and ballet; “sports,” like fitness, team, and individual sports; “social,” such as in parties and visiting friends; “outdoor”, such as picnic, hunting, and camping; and “hobbies,” such as drawing, collecting, and photography (as cited in Kleiber, Walker, & Mannel, 2011, p. 76). Another main grouping was implemented by Tribe (1995), dividing recreation basically into three categories. These are: “indoor recreational activities,” such as listening to music, watching TV, and reading; “outdoor recreational activities,” like participation in sportive activities, visiting various spaces, hobbies; “travel and tourism activities,” such as in travelling to a place and lodging. According to Karaküçük (1997, pp. 68-69), categorization of the recreation is based on the individual’s reasons for participation in recreational activities, individual’s desires and tastes. Based on the reasons why an individual decides to participate in a recreational activity, an appropriate recreation type is created. Within these limitations, Karaküçük categorized recreation based on its purposes (leisure, cultural, social, sportive, touristic, and artistic) and based on various criteria (age, number of participants, time, space, and social). Hazar (2009, p. 30), similar to Karaküçük, asserted that criteria, such as purpose, space, and function should be utilized for categorization of
recreation types, and divided recreation into six categories by utilizing the studies by Duncan (1954) and Akesen (1978). According to Hazar (2009), certain recreational activities belong to more than one category. For instance, activities, such as golf and kayaking could be evaluated under “outdoor recreation,” which is located in spatial category; they belong to “sportive recreation” category located under functional recreation types as well.

In studies conducted with students, recreational activities are generally grouped as social, cultural, artistic, and physical. It was observed that the student clubs that form the sampling in this study included the following spheres of activity: “activities that improve and test knowledge and skills,” such as tournaments, parlor activities, educational seminars, occupational training courses; “artistic” and “cultural” activities, such as dance, music, movies, theatre, and drawing; “physical activities,” such as sports; “tourism and travel activities,” such as excursions and tourism; and “social activities,” such as volunteer social services. Within the scope of the activities of student clubs, the study was based on Dumazedier (1968) and Hazar’s (2009) functional categories. Accordingly, activities were categorized under four main topics of physical, social, artistic, and cultural activities.

Physical recreation includes sportive activities performed indoors and outdoors. These are pool, river, lake, and sea activities, such as swimming, water sports, and spear fishing; mountain sports, such as trekking, climbing, hunting, and skiing; and sports like basketball, football, volleyball, tennis, table tennis, golf, gymnastics, and equestrianism. Social recreation includes activities for establishing and enforcing interpersonal relationships like attending meetings and parties, and making social calls. Social recreation develops and improves individuals’ artistic skills and includes activities in several branches of fine arts. Activities that improve manual skills, such as cartoons, drawing, design and artistic activities, such as dance, movies, theatre, music, festivals, concerts, photography, fairs are under this category. Cultural recreation includes activities that improve and test knowledge and skills. All intellectual activities that improve and test knowledge, such as daily excursions and touristic trips, foreign language, computer and other occupational training courses and seminars, tournament intelligent games are considered within this context.

Recreation Experience

Although in spare time literature experience is generally used interchangeably for “activity,” spare time behavior means so much more than activity (Manfredo, Driver, & Tarrat, 1996, p. 189; Patterson & Pegg, 2009, p. 257). According to Budruk and Stanis (2013, p. 52), participations of individuals in recreation are experiences that end with physiological, psychological, and social output in specific areas. McCool (2006, p. 3) explained the experience of recreation as a concept “that could be defined in various ways, but rather a more social psychological phenomenon affected by individuals’ expectations, norms, individual’s company in recreational area, and especially from the attitudes formed against the area during the visits.” In brief, the experience of recreation occurs as a result of the meanings it has for the individuals, rather than the content of the activities. Thus, it could be argued that recreation experience carries different meaning for different individuals, in other words, differs from one person to another. For instance, an activity could be considered as work for one, while for another it could be a pleasant recreational activity (Ateca-Amestoy, Serrano-del-Rosala, & Vera-Toscano, 2008, pp. 65-66). Experience is a hard to define concept and recreation experience is considered differently based on concepts, such as activity, assessment, perception, motivation, drive, and satisfaction. For instance, Müderrisoğlu et al. (2005), who approached the subject of experience and satisfaction
in Turkey, in the study where the visitor profiles at Abant Natural Reserve were scrutinized, aimed to determine the general satisfaction levels of the visitors after their experiences. In another study that aimed to determine behavioral relationships between nature-based outdoor recreation and holiday tourism, experience preferences theory was utilized in explanation of outdoor recreational motives (Aşan, 2013, p. 5). On the other hand, Kozak and Metin (2014, p. 1121) mentioned recreational opportunity distribution (ROD) method that was developed to create opportunities for satisfaction of individuals’ experience needs, and argued that this method especially created significant opportunities for realization of the experiences that people desired.

In the study, “Recreation Experience Preferences” (REP) scale, developed within the framework of REP was used to assess the experiences that the students had as a result of attending recreational activities. In certain studies, it was observed that REP scale was utilized to determine the benefits obtained as a result of participation in recreational activities (Shores & Scott, 2007). The original tem pool of the REP scale consists of 328 expressions. It was identified that, in studies the scale was utilized, only the required expressions were used based on the context of the research (Hsieh, 2007, p. 24). Manfredo et al. (1996) demonstrated the validity and reliability of the scale in their meta-analysis study, which included 36 studies that utilized the REP scale. Thus, 26 expressions under seven dimensions were utilized in the REP scale, which was used to measure psychological, social, and physiological output related to the behavior of the students in the study. The reason why these dimensions were preferred was the fact that these dimensions were utilized in recreational studies conducted with students in the literature (McKenzie, 2011; Flood & Parker, 2014), and these experience dimensions were related to the activities that the students participated in the clubs. The dimensions utilized in the REP scale were: “achievement,” “human relations,” “learning,” “teaching and leadership,” “insight,” “physical exercise and leisure,” and “escape from personal and social pressure.”

As is known, recreation is a re-creation or restructuring activity (Kraus, 1985). In addition, it also means escape from daily routine, revitalization, and change. Students that participate in recreational activities could interrupt the classes they take routinely, and help ease the mental pressure off, thanks to the organizations they attend. Students that participate different recreational activities for different purposes gain an experience. Students that experience one or more recreational activities together have different recreational experiences. Based on this assumption, the following H1 hypothesis was developed in the study.

H1: “There is a significant relationship between the recreation categories the students participated and the experiences they gained.”

The Intent to Continue Recreational Experience

Intent is defined as the determined probability for a behavior to be realized (Oliver, 1997, p. 23). Behavioral intent, accepted as an output of satisfaction process, is considered as a significant factor that explains the behavior of the individual through a strong intention to enact a behavior, whose outcome is previously known (Ajzen, 1991, as cited in Kaur & Gupta, 2012, p. 245). Theory of Reasoned Action and Theory of Planned Behavior developed over the first, both identified that the closest element to behavior is the intent (Başaran, 2014, p. 66). It was conceived that intent, developed by the individual, occurs due to two different factors: individual and social. Personal factor identifies the positive or negative assessments of the individual to fulfill the behavior and expressed as the attitude developed against the behavior. Social factor that is effective on intent identifies the social pressure that the individual perceives on whether he or she should perform the related behavior and defined as the subjective norm (Ajzen, 1985, p. 12). Behavioral intent is
frequently mentioned especially in the discipline of marketing. The intent of an individual to buy a product or service again from the same business consists of assessments and thoughts based on the individual’s own experiences (Hellier et al., 2003, p. 1764). A similar approach is also accepted in recreation studies. According to scholars, activities are the main part of experiences. The choice of an individual for the next activity or the intent to continue the activity depends on the remembrance phase of the previous activity, therefore, on the experiences of the individual (Clawson & Knetsch, 1966, as cited in Nikolaeva, 2012, p. 10).

There are studies in the literature that scrutinized the participation in sports activities and the intent to continue these activities. In a study, which determined that the attitudes of an individual towards behavior affected the intent and examined the participation in sports activities, it was determined that the most significant factor that affected the recreational behavior intent was the personal impediments (Alexandris & Stodolska, 2004, p. 212). In another study conducted with skiers, coping strategies with the factors that prevent participation in skiing activities and the relationship with maintaining skiing were scrutinized. In the study, it was determined that if the coping strategies were successful, these strategies would be effective on the intent to continue the activity (Alexandris, Kouthourisand, & Girgolas, 2007, p. 648). In this study, recreational experiences of the students were accepted as a prerequisite factor for the continuation of the said activity, and the following hypothesis was formulated.

H2: “Recreational experiences of the students are effective on the intent to continue the same recreation activities after graduation.”

**Methodology**

The main objective of the study, is to determine the experiences Anadolu University students gained as a result of recreation activities they participated, and the effects of these experiences on their intention to continue these recreation activities in the future. Study results were considered significant, since they would help raise the consciousness of the students on recreational activities, and they would also guide the implementers in planning, development, and management of the recreational experiences of the students.

In the study, where a quantitative research approach was adapted, the survey method, which is a systematic data collection technique by directing questions to resource individuals that form a universe or a sample based on hypotheses determined on a specific subject, was utilized (Ekiz, 2009; Kozak, 2014). The survey form utilized consisted of four sections. In the first section, recreation activity types were asked in 10 items to assess the status of participation of the students in activities in their spare time, and the frequency of their participation in these activities. The participation frequencies of the students in these activities were measured using the frequency scale (1 = Do not agree; 2 = Seldom agree; 3 = Agree; 4 = Frequently agree; and 0 = Do not know/No opinion). In the second section of the survey form, scale expressions designed within the framework of REP were utilized to assess the experiences the students had as a result of participation in recreational activities (Driver, 1983). Scale expressions, selected from the item pool and adapted to Turkish, consist of 24 expressions that are classified under seven dimensions. However, since the activities that the students participated included “arts” and “culture” in addition to “nature,” within the context of the study, the expressions of “I learned more about culture” and “I learned more about arts” expressions were added to the expressions in the “learning” dimension. Thus, in the second section there were a total of 26 scale expressions classified under seven dimensions. These expressions were assessed using a Likert-type scale (1 = Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree; and 0 = Do not know/No opinion). In the third section of
the survey, five expressions were used to assess the intent of the students to continue recreational activities. The first four expressions were taken from the scale expressions used by Alexandris and Stodolska (2004), Kim, Chelladurai, and Trail (2007), and Kouthouris (2009) in their studies, and a fifth expression of “I plan to continue and improve the recreation activities that I participated in the club professionally after I graduate” was added to determine whether the students would continue the recreational activities professionally in the survey questionnaire form. In this section, similar to the second section, expressions were assessed using a Likert-type scale (1 = Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree; and 0 = Do not know/No opinion). In the fourth section of the study, demographical questions such as age and gender, and questions on the length of experience for the activities the students participated were included.

Before the field application, surface validity and reliability of the survey questionnaire was tested by a pilot study conducted with 40 students, who were members of student clubs. The application implemented face-to-face, the participants were asked if the expressions were comprehensible, and as a result of the positive feedback received it was determined that the survey form was comprehensible and met the requirement of surface validity. Reliability tests conducted on the results obtained by the pilot application demonstrated that the experience scale internal consistency coefficient (Cronbach Alpha) was 0.959 intent to continue scale internal consistency coefficient was 0.725. In other words, the scales were reliable. With the survey questionnaire that met the conditions for surface validity and reliability as a result of pilot application, the field application was commenced.

The sample of the study was determined as the 800 students with active participation based on the information obtained from student clubs coordination office. Survey field application was conducted both online on the Internet and face-to-face. The link for the online survey questionnaire was e-mailed to student club presidents and they were asked to share it with their members. Between the dates of March 30, 2015 and May 5, 2015, 30 Internet and 238 face-to-face, a total of 268 valid survey forms were collected. Survey questionnaire forms that were applied face-to-face were distributed during the same dates to individuals that volunteered in the student clubs during busy hours. With interviews generally conducted between 3:00 p.m. and 5:00 p.m. that lasted for two hours, the process was completed. Nine survey forms were excluded from the sample, since they contained more than 10% lost data. The sample size of 268 represents an appropriate sample size based on the sampling calculation formula (Ural & Kilç, 2011, p. 49).

Before the analysis of the data obtained from the survey, field application, reliability, and sample sufficiency tests were conducted for the recreation experience scale. After the suitability of the scale for factor analysis and reliability were evidenced, three basic analyses were planned to obtain the main findings of the study. First order were the descriptive analyses conducted on demographical data to demonstrate the characteristics of the sample. In the second phase, correlation analysis was conducted to determine the relationship between the activity participation frequencies of the students with respect to the categories and the experiences they gained. And finally, regression analysis was conducted to determine the effects of the recreational experiences of students on the intent to continue the activity.

Factor Analysis

Factor analysis was conducted to test the structural validity and reliability of the recreation experience scale designed for the study. Suitability of the data set for factor analysis and the consistency of the variables and expressions of the factor structure obtained were tested using Kaiser-Meyer-Olkin (KMO) and
Bartlett Sphericity Test. KMO value for the recreation experience scale was 0.915, Bartlett Sphericity Test result was $p = 0.000$. While a KMO value of over 0.60 shows that sample size for data set factor analysis is at a good level and sufficient, a Bartlett Sphericity Test’s $p$ value of less than 0.05 demonstrates that expressions and factors are consistent and with sufficient correlation (Alpar, 2011, p. 286). After the suitability of the data set for factor analysis was determined, factor analysis was conducted and analysis results are visualized in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Exploratory Factor Analysis for Recreation Experience Scale</th>
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</thead>
<tbody>
<tr>
<td>Recreation experience</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Physical exercise and leisure</td>
</tr>
<tr>
<td>19. I did physical exercise.</td>
</tr>
<tr>
<td>20. I physically kept fit.</td>
</tr>
<tr>
<td>21. I physically relaxed.</td>
</tr>
<tr>
<td>22. I physically rested.</td>
</tr>
<tr>
<td>Learning about new and different objects and people</td>
</tr>
<tr>
<td>9. I learned about new things.</td>
</tr>
<tr>
<td>10. I experienced new and different things.</td>
</tr>
<tr>
<td>8. I observed other people in the university.</td>
</tr>
<tr>
<td>7. I met new and different people.</td>
</tr>
<tr>
<td>Leadership and insight</td>
</tr>
<tr>
<td>16. I led other individuals.</td>
</tr>
<tr>
<td>15. I helped direct the activities of others.</td>
</tr>
<tr>
<td>17. I developed my spiritual aspect.</td>
</tr>
<tr>
<td>18. I thought over my personal values.</td>
</tr>
<tr>
<td>14. I shared with others what I learned.</td>
</tr>
<tr>
<td>Achievement</td>
</tr>
<tr>
<td>4. I saw what I could do.</td>
</tr>
<tr>
<td>2. I demonstrated to others what I could do.</td>
</tr>
<tr>
<td>3. My skills and abilities improved.</td>
</tr>
<tr>
<td>1. My self-confidence improved.</td>
</tr>
<tr>
<td>Escape from personal and social pressures</td>
</tr>
<tr>
<td>25. I left behind my daily responsibilities albeit only for a while.</td>
</tr>
<tr>
<td>23. I got rid of my stress.</td>
</tr>
<tr>
<td>26. I had the opportunity to change my routine life.</td>
</tr>
<tr>
<td>24. I rested my mind.</td>
</tr>
<tr>
<td>Learning about culture, arts, and nature</td>
</tr>
<tr>
<td>12. I learned more about culture.</td>
</tr>
<tr>
<td>13. I learned more about arts.</td>
</tr>
<tr>
<td>11. I learned more about nature.</td>
</tr>
<tr>
<td>Human relations</td>
</tr>
<tr>
<td>6. I was with people who shared values with me.</td>
</tr>
<tr>
<td>5. I spent good times with my group friends.</td>
</tr>
<tr>
<td>Cronbach Alpha (Reliability coefficients)</td>
</tr>
<tr>
<td>Variance explained</td>
</tr>
</tbody>
</table>
Although the dimensions within REP scale pool matched as a result of the factor analysis, expressions on “leadership” and “insight” dimensions categorized under different topics were collected under a single factor. Leaders having insight that indicates gaining new information and awareness on their proficiency, especially in group-based recreation activities, plays a significant role in their understanding of the group dynamics and ability to mobilize individuals. Thus, it was decided to name leadership and insight dimensions as an integrated one single dimension, as “leadership and insight.”

Findings

Demographical questions directed to the participants in the study included questions on gender, age, and duration of experience in recreational activities they have participated. The demographical information displayed in Table 2 demonstrates that 42.91% \((n = 115)\) of 268 participating students were female, and 55.97% \((n = 150)\) were males. Eighty-three point three percent \((n = 224)\) were between the ages of 18 and 23, 15.30% \((n = 41)\) were 24 or older. Experience time-span of students in recreational activities changed between one and 10 years. Thus, vast majority of the students \((85.82%; n = 230)\) participated in recreational activities for 1-3 years, while 10.07% \((n = 27)\) had an experience of 5-11 years. The findings of the study on recreational activities are presented under two topics below.

Categories of Recreation and Preference Frequencies

The rates of students preferring different recreational activities show that they preferred social recreation activities the most \((72.76\%)\), followed by cultural \((72.26\%)\), artistic \((70.52\%)\), and physical \((60.82\%)\) recreational activities. Similar to preference rates, the participation frequencies of students could be ordered as social \((2.46)\), artistic \((2.36)\), cultural \((2.33)\), and physical \((1.96)\) respectively, based on activity categories. Thus, the students preferred social activities, such as social responsibility activities, and meetings and parties; artistic activities, such as activities that develop manual skills, and dance and movies; cultural activities, such as activities that improve and test knowledge and skills, and excursions and touristic travel more. They have participated less in physical activities, such as mountain sports, sea and pool related activities, and basketball, volleyball and tennis (see Table 2).

<table>
<thead>
<tr>
<th>Recreation categories</th>
<th>(N)</th>
<th>Rate of preference (%)</th>
<th>Mean</th>
<th>Sd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social recreation</td>
<td>195</td>
<td>72.76</td>
<td>2.46</td>
<td>0.86</td>
</tr>
<tr>
<td>Cultural recreation</td>
<td>194</td>
<td>72.26</td>
<td>2.33</td>
<td>0.77</td>
</tr>
<tr>
<td>Artistic recreation</td>
<td>189</td>
<td>70.52</td>
<td>2.36</td>
<td>0.87</td>
</tr>
<tr>
<td>Physical recreation</td>
<td>163</td>
<td>60.82</td>
<td>1.96</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Testing the Hypotheses

The first hypothesis determined in the study was: H1: “There is a significant relationship between the recreation categories the students participated and the experiences they gained.” The relationship between the participation in activities grouped under four categories of physical, social, artistic, and cultural, and the experience dimension was tested with correlation analysis in the study.

Analysis results not reflect a significant relationship between physical participation in recreational activities and experience dimensions. In other words, as the frequency of participation in physical recreational
activities of students increased, an increase was not observed in their experiences. However, a positive increase in all experience dimensions was observed based on the increase in the frequency of participation in social recreation activities. Thus, an increase of 0.26 in “achievement” experiences of the students; 0.18 in “human relations” experiences; 0.27 in “learning about new and different objects and people” experiences; 0.15 in “learning about nature, culture, and arts” experiences; 0.27 in “leadership and insight” experiences; 0.17 in “physical exercise and leisure” experiences; and 0.12 in “escape from personal and social pressures” experiences were observed. These results show that by increasing the participation of students in social activities, their recreational experiences could as well be improved (see Table 3). The correlation analysis also demonstrated that there was a positive relationship between the frequency of participation in artistic and cultural activities and the experiences gained.

Analysis results showed that, based on the participation of students in artistic activities, an increase of 0.15 in “learning about nature, culture and arts” experiences; and 0.16 in “escape from personal and social pressures” experiences were observed. Finally, based on the participation frequency of the students in cultural activities, an increase of 0.13 in “achievement” experiences of the students; 0.16 in “learning about nature, culture, and arts” and “physical exercise and leisure” experiences; and 0.15 in “escape from personal and social pressures” experiences were observed.

Table 3

<table>
<thead>
<tr>
<th>Participation frequencies based on recreation activity categories</th>
<th>Achievement</th>
<th>Human relations</th>
<th>Learning about new and different objects and people</th>
<th>Learning about nature, culture, and arts</th>
<th>Leadership and insight</th>
<th>Physical exercise and leisure</th>
<th>Escape from personal and social pressures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>$R$</td>
<td>-0.019</td>
<td>-0.007</td>
<td>-0.006</td>
<td>0.078</td>
<td>0.025</td>
<td>0.106</td>
</tr>
<tr>
<td>$P$ value</td>
<td>0.751</td>
<td>0.912</td>
<td>0.918</td>
<td>0.201</td>
<td>0.679</td>
<td>0.084</td>
<td>0.264</td>
</tr>
<tr>
<td>$N$</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>267</td>
<td>268</td>
</tr>
<tr>
<td>Social</td>
<td>$R$</td>
<td>0.263**</td>
<td>0.182**</td>
<td>0.271**</td>
<td>0.150</td>
<td>0.272**</td>
<td>0.170**</td>
</tr>
<tr>
<td>$P$ value</td>
<td>0.000</td>
<td>0.003</td>
<td>0.000</td>
<td>0.014</td>
<td>0.000</td>
<td>0.005</td>
<td>0.039</td>
</tr>
<tr>
<td>$N$</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>267</td>
<td>268</td>
</tr>
<tr>
<td>Artistic</td>
<td>$R$</td>
<td>-0.007</td>
<td>0.025</td>
<td>0.062</td>
<td>0.152*</td>
<td>0.023</td>
<td>0.118</td>
</tr>
<tr>
<td>$P$ value</td>
<td>0.909</td>
<td>0.679</td>
<td>0.309</td>
<td>0.013</td>
<td>0.704</td>
<td>0.055</td>
<td>0.009</td>
</tr>
<tr>
<td>$N$</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>267</td>
<td>268</td>
</tr>
<tr>
<td>Cultural</td>
<td>$R$</td>
<td>0.132*</td>
<td>0.063</td>
<td>0.110</td>
<td>0.167**</td>
<td>0.103</td>
<td>0.167**</td>
</tr>
<tr>
<td>$P$ value</td>
<td>0.030</td>
<td>0.302</td>
<td>0.073</td>
<td>0.006</td>
<td>0.091</td>
<td>0.006</td>
<td>0.010</td>
</tr>
<tr>
<td>$N$</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>268</td>
<td>267</td>
<td>268</td>
</tr>
</tbody>
</table>

Note. *Correlation is significant at the 0.05 level; and **correlation is significant at the 0.01 level.

Arithmetic mean and standard deviation values for the expressions of the students favoring the continuation in recreational activities were calculated as well. Analysis results demonstrated that students intent to continue (3.18 = Agree) the recreational activities that they participated in the club in the future as well.

In addition, regression analysis was conducted to test the H2 hypothesis: “Recreational experiences of the students are effective on the intent to continue the same recreation activities after graduation” in the study. The regression equation was found to be statistically significant ($F = 103.42, p < 0.001$) and the analysis results are displayed in Table 4. Table 4 shows that the factors of “leadership and insight” and “human relations” were effective on the intent to continue ($p < 0.05$). The effect of experience dimensions on the intent to continue was 44.2% ($R^2 = 0.442$). In brief, students’ intention to continue a recreational activity is determined by the
experiences they gained from these recreational activities. The independent variable with the highest $\beta$ value has the most significant effect relatively (Büyüköztürk, 2012, p. 105). Thus, it was determined that the experience dimension that had the most significant effect on the intent of the students to continue the recreational activity was “leadership and insight” ($\beta = 0.447$).

Table 4
The Effect of Recreational Experiences on the Intent to Continue the Recreation

<table>
<thead>
<tr>
<th>Model</th>
<th>Non-standardized coefficient</th>
<th>Standardized coefficient</th>
<th>$t$ value</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.220</td>
<td>0.196</td>
<td>1.123</td>
<td>0.263</td>
</tr>
<tr>
<td>Leadership and insight</td>
<td>0.521</td>
<td>0.063</td>
<td>8.279</td>
<td>0.000</td>
</tr>
<tr>
<td>Human relations</td>
<td>0.324</td>
<td>0.055</td>
<td>5.872</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note. $R^2 = 0.442$; $F = 103.42; p = 0.000$; and VIF = 1.354.

Conclusions

Students need experiential conditions that could deploy various motivations, such as entertainment, leisure, self-realization, and interact with others in their spare times. Student clubs in Anadolu University provide an environment of experiences that enrich the school life of the youth of different age and experiences, and help them enjoy the life via physical, social, cultural, and artistic recreational activities. However, continuation of recreational activities after graduation is important for the youth to maintain the social-life balance throughout their lives in the future. The decision of the students to continue recreational activities in the future as well is shaped by the recreational experiences they have at school. Thus, the main objective of the study was to determine effects of experiences of Anadolu University students gained as a result of recreation activities they participated on their intention to continue these recreation activities in the future. Furthermore, the study aimed to determine the participation frequencies of students in recreation activities based on the categories and the experiences gained from these activities. Validity and reliability tests demonstrated that REP scale could be used for the measurement of recreational experiences.

There are studies in literature that indicate frequent participation in social recreational activities provide group skills, enable students to direct others and to lead, and provide experiences, such as self-confidence, achievement, learning new and different subjects (Driver, 1983) for the students. Findings of the study, parallel to the findings in the literature, indicated that, when students participated more frequently in social recreation activities, there was a significant improvement in all recreational experience dimensions. In the study, as the participation frequency of the students in all of the social, cultural, and artistic categories increased, an increase was observed in “learning about nature, culture, and arts” and “escape from personal and social pressures” experiences. While the students accomplished experimental, cognitive and social learning as they participated in such recreational activities (Köktaş, 2004), they also put a distance between them and the routine of their lives, easing the mental pressure on themselves. In other words, by participating in social, cultural, and artistic recreational activities more, students could benefit more from the above-mentioned advantages.

Furthermore, in the study, the relationship between the frequency of participation in activities and achievement dimension was evaluated and it was observed that as the frequency of the students participating in activities in the cultural category increased, their “achievement” experiences increased as well. In addition, since cultural category includes physical mobility activities, such as excursions and touristic travel, it was determined
that as the students participated in cultural activities, their “physical exercise and leisure” experiences increased as well. Thus, as the frequency of the students to participate in activities in the social, cultural, and artistic categories increased, the experiences they gained increased as well. Therefore, it is necessary for the clubs to organize frequent activities to increase recreational experiences of the students and encourage students to participate in these activities. It could be recommended that, to be able to achieve this goal, the clubs should determine which types of activities the students prefer, should provide appropriate recreational spaces; and the students should plan their programs to participate in recreation activities as much as possible.

It was observed in the study that the intent of the students to continue recreation activities is largely determined by the experiences they had as a result of the recreational activities. Thus, “leadership and insight” and “human relations” experiences of the students was effective on the intent to continue the recreational activities in the future. Previous studies have also indicated that the recreational experiences, which the individuals had at early ages, were effective on the continuation of these experiences in the future (Wang, Wu, & Wu, 2013, p. 68). Aarnio, Winter, Peitonen, Kujala, and Kaprio (2002, p. 179) reported that youngsters continue their outdoor recreational experiences in adulthood, developing a more active lifestyle. Examination of human relations experience context demonstrated that socialization opportunities and friends had significant effects on the participation of students in recreational activities and the experiences they gained (Festeu, 2002; McKenzie, 2011, p. 32; Tercan, 2013, p. 228; Gürbüz & Henderson, 2013, p. 927). It was determined in the study that the experience dimension, which influenced the intent of the students to continue recreation activities the most, was “leadership and insight.”

As a result, it should be stressed that, to train the youth to have a physically, mentally, and socially healthy future, universities should emphasize recreation support applications that provide active recreation opportunities and enable sustainable participation in these activities. Thus, student clubs or student groups share the largest responsibility. Participation in recreational activities should be encouraged (grades or economical) for the culture of recreation to be adapted and sustained and to gain positive experiences from the recreational activities as expected. This study also highlighted the significance of group leadership and human relations in the choice of recreational activities. Therefore, it could be argued that courses that develop leadership and human relations should be included in the programs of Recreation Departments (including Tour Guide Departments) in different faculties in universities.

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Study on University Ecosystem in the High-Tech Context*

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The university ecosystem highlights the systematic designing and the integrative, self-adaptive mechanism to promote economic prosperity and social cohesion. The infrastructure, curriculum, faculty, resources, etc. should be designed systematically and self-adjust dynamically in the context of high technology. The interaction and coordinating of the internal and external factors and the dynamic co-evolving mechanism between different sectors as university, enterprise, and government should be considered about with the precisely positioning of human resources, capability, and requirements. Educate for excellence is the standard for all universities. The integrative paradigm between disciplinaries, knowledge and application, university and society, the diversity of students should be enhanced. The construction of smart city, the platform, the learning community, the students' entrepreneur union, the spin-offs can act as media to link knowledge and society.

Keywords: university ecosystem, consistency and cohesion, integrative, self-adaptive, high technology

Introduction

University takes the primary responsibility to preserve civilization, to produce knowledge, and to educate young generations for the economic prosperity and social cohesion. University in China can be divided into: the top university (which highlights academic training, top research, and initiative projects, e.g., the 112 “Project 211” universities and 39 “Project 985” universities), the entrepreneurial university (which highlights knowledge application and service for the local society), and the general university (which is between the top university and the entrepreneurship university considering the academic rigor and performance as well as the educational modes). Different category of university has different mission and features, while government’s investment is much different, too. From 2009 to 2013, the total government research funding for “Project 985” universities (total 39 institutions) is 13.9 billion RMB, and “Project 211” universities (total 73 institutions) approximately 5.1 billion RMB and the rest of 670 common undergraduate universities only 7.9 billion RMB. While the research performance of the top universities and their contribution to science discovery, innovation, and employment rate are not optimism.

Investment in education accounts for about 4% of total gross domestic product (GDP) in China in 2015. Although the number of university and student has been increasing greatly, there are some serious concerns about the quality of education. One study estimates that only 1.2 million of 15.7 million university graduates (or 7.6%) have skills that are valued by international markets for human capital. In other words, the majority of students educated in China universities do not have adequate skills or competency for high quality jobs.

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From the 1980’s on, Chinese higher education has undergone a series of reforms which give university more flexibility and autonomy, but the bureaucracy system leads to lots of conflicts and excessive departmentalization, segmentation, and over specialization. Various “powers” dominate the community. Curriculum, teaching, research, application are not seamlessly integrated. There are conflicts between policies, institutions, and systems. It is lack of efficient translating mechanism between knowledge and application. The effective financial collaborating mechanism for research, development, and transferring has not formed. University must meet with various demands from a multiple groups—students, staff, governments, employers, research councils, sponsors, etc.. These demands require changes in policy, practice, systems, and culture. Of course, the government and industry should take the responsibility, too.

In the context of high technology, university and society are experiencing radical transition. This change has significant implications for curriculum, teaching, and management. The ability to generate, collect, process, and explore big data by industry, academy, and government promotes democracy and equality. Simulating manufacturing and decision-making can avoid much risk and reduce cost. Big data mining and analysis technology creates better products, gets greater insights, and gain competitive advantage over traditional development processes. In the context of high technology, we can make good use of big data techniques for statistics and metrics study, using sensor collecting data and visualization, simulating, and the geographic information system (GIS) techniques to position precisely, monitor, evaluate, and make strategic plan. We can consider and design the regional and national higher education structure and system in the context of globalization and highlights the interaction between top research, technology development, and application.

Literature

Chinese scholars have studied the university system and elements in detail and pointed out some core elements and the integrative mechanism. For example, Zhao (2003) proposed five core components of university innovation system: the infrastructural system, developing platform, intermediary system, public service platform, and culture construction. These elements interact with each other and form a integrative system.

Yuan and Jiang (2007) studied the construction of university innovation system and pointed out that university should deploy the resources rationally and strengthen the initiative innovation, knowledge base construction, integrate scientific and technological resources, and optimize the efficiency.

Liu (2011) studied the reconstruction of the undergraduate education in American top universities and found that they highlight such aspects in undergraduate education: educate leaders for the future, to construct knowledge base, enhance top research and publication, to build expertise system and regional networks to promote learning society. The undergraduate reform projects include evaluation, cooperative learning, first-year experience, liberal education, interdisciplinary programs, science education, learning service, teacher training, teaching innovation, and undergraduate research.

Yuan and Peter (2013) studied the spiral transformation of knowledge innovation under WEB 2.0 and put forward the socialization and externalization—internalization and externalization—combination and internalization (SE-IE-CI) model. Zhao (2013) studied the development of higher education quality index based on cloud computing and big data, the technology, theory and mechanism, and highlighted the construction of data systems, respect of data rights and obligations.
University innovation highlights the basic research and technology innovations which link the relevant organizations across universities, enterprises, government, finance, and the intermediary organizations. University is in the upstream along the whole innovational value chain. And in the high technology background, university should enhance knowledge producing and disseminating, construct knowledge base and platform, enhance open access and learning service, and integrate university with society.

**Some New Trends**

**Study on the integration of high technology in higher education.** Various hardware and software tools are used to facilitate teaching and learning. High technology are integrated in the infrastructure, instructional design, communicating and interaction, monitoring and evaluation.

**Study on the ecosystem of university with the local society.** The innovation capabilities of region originate from the global network of collective intelligence. The social networks also provide a new way for knowledge transfer and spillover. Universities tend to integrate with the local society, the agility workshop, and spin-offs assemble around the residential area with population diversity.

**Study on the values of university using both empirical data and theory to address values in teaching, research, and management spectrum.** Values in teaching, research, and management should be aware of by university teachers, leadership, and managers, as well as students and customers. Teaching with values and for values in all subjects has the potential to radically alter students’ experience and improve quality, competency.

**Case Study**

**Case study one.** In 2004, the British government published a 10-year investment framework for science and innovation. The purpose is to promote outstanding scientific and technological discovery and to turn knowledge into new products and services. In order to maintain and develop world-class excellence and core strengths, a culture of multidisciplinary research and the underpinning infrastructure and funding mechanism to support it are taken into account. They set out plans to drive up the numbers of skilled scientists and engineers, to put the science based on a sound financial footing through better financial management and investment in infrastructure, to support business research and development, to make the best of research across government and translate this knowledge more effectively into business and public service innovation, to strengthen the link between the world of knowledge and the world of labor, and to reallocate the faculty human resource to match the requirement.

Since 2012, government has invested over £400 million to equip the United Kingdom (UK) researchers in academia and industry to meet high-tech challenge and take advantage of the opportunities. Centers of expertise have been established, new training courses have been designed to equip researchers for this new era of data driven discovery, and the department of business, innovation and skills (BIS) has published the UK’s Data Capability Strategy. Most recently, funding for the Alan Turing Institute was announced for research into the underpinning mathematics and algorithms for advanced high performance computing (HPC) modeling and simulation (see Figures 1 & 2). All these policy and measures have significant implication for university. University must take the responsibility to carry out excellent research and be adapt to the high-tech requirement. Research paradigm, curriculum, and teaching modes must shift accordingly.

**Case study two.** In 2014, Brookings published the metropolitan program—The rise of innovation districts: A new geography of innovation in America, in which the authors pointed out that for the past 50 years, the
landscape of innovation has been dominated by places like silicon valley, which are isolated campuses within suburban areas. A new complementary urban model is now emerging, giving rise to what we are calling “innovation district.” The new geography of innovation set within downtown areas that allow firms and talented people to congregate together in dense and amenity rich urban environments. In doing so, firms and workers are better able to interact, share ideas, and practice “open innovation,” all within a vibrant mixed-use environment that appeals to urban workers. The new trend is to nurture living, breathing communities rather than sterile remote, compounds of research silos.

Given the shifting spatial geography of innovation, the federal government and states is considering about locating new or existing advanced research facilities in innovation districts. The shifting of public university advanced research facilities to innovation districts has become a recognized trend. In the next decade, states in particular would rethink the location of the research arms of institutions of higher learning to spur market creation. A more integrative ecosystem with university, innovation district, and community ecosystem is forming. University should adjust the strategy according to the environment to drive innovation, to promote social cohesion, and to push forward the learning society. Local institutional capital is also being unlocked to spur urban regeneration. Massachusetts Institute of Technology (MIT), for example, has used its extensive land holdings in Cambridge to spur the development of research, entrepreneurial, commercial, office, and residential space.

One strategy a few practitioners are applying is to focus on the many innovation jobs (e.g., lab technicians) that require customized technical training in high schools or community colleges, rather than a four-year or advanced college degree. In fact, in mature science and research parks, the conventional wisdom is that 40% of the jobs require high school diplomas or associate degrees, 40% requiring bachelor degrees, and only 20% requiring master and Ph.D. degrees.

![Figure 1. Field-weighted citation comparison in 2002 and 2012.](chart4b.png)
Applications and Suggestions

Highlight Different Strategy for Different University and the Integrative Mechanism

Different kind of university has different context, culture, and missions. The research university emphasizes on the elite cultivating and nurturing, the cutting edge research, and the outstanding projects. The entrepreneurship university strengthens the link between science, technology and society, knowledge and application. Accordingly, different curriculum and teaching modes are selected. The research university should preserve and exercise scientific rigor and originality, in a spirit of impartiality and ethics. Academic authority should be empowered and take the responsibility for monitoring evaluation based on the rigid science and professional criteria and evidences. The external assessment is also necessary, which is usually carried out by government, industry sectors, community, and research sponsors.

No matter what kind of university, the following qualities for graduates are highlighted: integrity, resilience, creativity, initiative, confident, humanity, value, ethics, and autonomy. The differences lie in knowledge, skills, competency and learning strategy, the width and depth, and the methodology and objectives. University culture, especially the tacit knowledge and cognitive learning strategy cannot be duplicated or transacted.

Considering the funds for research, the top universities get major funds from government, and the alumni donation, the charity, the collaborating fund, the World Bank, and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) also play important roles. The entrepreneurship universities get fewer
funds from government, but could change the strategy to seek for funds from financial agency or the mediate agency, as well as the collaborating project with enterprises, local society and government and get “win-win” effect. Investment councils will work with universities, investors, and enterprises to promote collaboration across institutional boundaries and link teaching, research, and application (see Figure 3).

**Integrate High Technology in University System and Practice**

High technology, especially the informational technology, such as big data, visualization, and simulation technology should be integrated in university teaching, research, and management. For example, we can use artificial intelligent for classroom teaching assessment to precisely monitor the teaching efficiency and students’ learning preference and difficulties. We can use massive online curriculum to share excellent teaching resources world-wide. We can use simulation technology for product-designing, risk-evaluation, doing experiment, and professional skills training. We can also use big data mining and analyzing techniques to map the research and innovation scenario and to predict tendency dynamically. We can use big data, visualization, and simulation technology to make decision from macro to micro dimensions. We can use geography information system to illustrate resources and environment and to make strategy plan, or to make decision which university to choose, etc..

University infrastructure, facilities, smart campus, and data base should be budgeted and audited to maximize the efficiency. Knowledge resources and laboratory should be open to students, local community, enterprises, and government, which will shrink the data gap between different groups from different sectors. Continuous collaborative research and development program and knowledge transfer networks will be built.

**Keep Balance of Efficiency and Quality With Self-Adaptive Mechanism**

There are some paradoxes in education system and management, such as quality and efficiency, cost and profit, scale and quality, elite and democracy, etc.. How to keep balance, promote overall development, and form a ecosystem? With the help of big data, simulating and visualization technology, and open access and massive online curriculum, we can shrink the gap and keep balance dynamically, embracing the learning society. The traditional triangle chain model is as below (see Figure 4).
From Figure 4, we can see the paradox: If we adopt the elite higher education strategy, only a small ration of secondary school graduates can enter university for further study and the teacher supply is sufficient, the condition is superb, the quality is excellent, but we cannot meet with the requirements of democracy and development. If we advocate the popularity of higher education and expand the university scale, the price and cost will be cheaper to satisfy with the large quantity of enrollments and the diversity of students, while the quality will probably decline, in that case we need more space to hold to the students, we need more infrastructure and facility, as well as more qualified teachers. But the teacher supplying is limited and our national investment is restricted to GDP and development strategy, so we have to hire some unqualified teachers and the infrastructure cannot meet with the development of high technology. Now, we have to think: How to get out of the paradox with the help of high technology in the global context?

The co-evolving model is our best choice that is to enhance interaction among university unions, between university-government-industry and the public society and share good idea, knowledge, and technology. Different sectors and diverse population should keep harmony with the basic value identity, such as empathy, integrity, resilience, and respect, and reciprocal and environmental awareness must be respected by all. Then, we can use the diversity as resources to form an ecosystem. Then, various classification of university with different advantages and disadvantages can coordinate with each other. The university, the innovation district, and the local society should integrate for convenience. The internal tension and external interacting mechanism should be taken into account. The balance triangle will shift to topology form with self-adaptive mechanism in an open complex system (see Figure 5).

Enhance International Education for “Win-Win”

Western education will likely remain the leading choice for Chinese students due to its cross-disciplinary programs and encourage critical thinking, respect diversity of students’ needs and potential, and provide more opportunities for students to participate in activities, project and meet with academic and high technology challenges. Meanwhile, the international students have enrolled in over 775 higher education institutions in China. Until 2014, there were more than 377,000 foreign students from 203 countries or regions studying in China.
The “brain circulation” emphasizes on human capital circulation across nations in the global market and obtains a “win-win” effect. It is considered a two-way flow of skill, capital, and technology, unlike brain drain and reverse brain drain. High-skilled migration brings important economic benefits and fills the critical technological gaps. The cross national companies take the advantages of worldwide research resources and attract globally dispersed scarcity of top talents.

To reverse the “brain drain” ditch, the less-developed or developing nations can select top students to go aboard for further study and come back to initiate a new enterprise. The government can provide rewards or funds for those brain gains, implementing new contracts. These brain gains also act as bridges for foreign investment and trade and promote the transfer and dissemination of knowledge and technology. A reciprocity and trust relationship will be established in the cooperation and a win-win effect will be gotten both in academic and economic fields. The International Corporation, projects, visiting scholars, international conference, and academic associations will play important roles in promoting knowledge producing, diffusion, and the coming of learning society. Accordingly, to develop international standards in industry, knowledge, technology, profession, and business ethics is in need.

Consider Diversity of Students and Promote Equality

Considering equality of education supplying, the inclusive idea and strategy must be harnessed. We can tailor our curriculum and choose proper teaching material and methods for diversity groups, e.g., the international students, the students at risk, the students from lower social-economic group, the male learners, mature students, care leavers and students with special needs, the disabilities, as well as the gift students and the normal students. With the application of computer aid instruction (CAI), we can support students by some software, such as the learning skills improvement service (LSIS). New interactive software enables male learners and disabled students to be engaged and makes the diversity of students as a source of learning in the learning community (e.g., peer support).

Enhance Eco-System of University, Innovation Districts and the Local Society

University would integrate with the innovation districts and local society and offer advanced facilities, knowledge resources, and consulting service. The social-technology-society (STS) program, the entrepreneur union, the network community, and the spin-offs can act as “bridges” to integrate university with innovation districts. The open access of data-base, the real-time interactive platform, and the massive on-line courses promote knowledge share, spillover, and transmitting to embrace the learning society (see Figure 6).

Conclusion

In the global and high-tech driven era, university should promote change and be adapt to change actively, and play a key role in knowledge producing, sharing, and converting to promote economic prosperity and social cohesion, highlight the integration of high technology with teaching, research, and management activities and the integration of university with the innovation district and local society, to form an ecosystem of diversity population, rural and urban, knowledge and application, industry and service system. University should improve teaching, research, and management to create and disseminate values, to construct knowledge platform and open intellectual resources to the public, and to advocate equality opportunities for rural and urban society and to promote the learning society.
The high-tech assemble mode: 
Silicon-valley, the center of high-tech, elite and rich

The population diversity, integrative mode: 
University-innovation district-community-precise supplying-research & development-manufacture-customer

Figure 6. The university ecosystem and self-adaptive mechanism.

References


Benefits Deriving From the Parent-Teacher Cooperation—The Parents’ Point of View

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The aim of this study was to investigate parents’ views regarding the benefits they gain from their cooperation with elementary education teachers. Content analysis was used for this research, while data was collected from spontaneous written text production. The parents participating in this study indicated that the parent-teacher cooperation helps both parents and teachers. Parents form a better idea about the character of their children and their behavior at school while teachers solve more easily problems which arise in class. Additionally, this cooperation contributes to pupil’s progress and social adaptation. Therefore, the results have shown that the benefits deriving from such a cooperation are numerous and those who fail to cooperate are “losing.”

Keywords: benefits, cooperation, teachers, parents

Introduction

An important issue, which requires cooperation between teachers and parents, is informing the parents about their children’s progress as well as the children’s presence at school in general. The Ministry of Education in Greece provides for the regular briefing meetings between parents/guardians and tutors. Obviously it is the parents’ “duty” to act accordingly.

“Cooperation” suggests the presence of two individuals at least who interact. These individuals are either interested in working together towards making a decision in order to achieve a goal (Cook & Friend, 1991), or they have been appointed as experts necessary to carry out a certain “assignment” (project). Therefore, the educators and the parents compose the required “pair,” that is, they fulfill the basic requirement of “cooperation.” Which are the benefits deriving from the issue at hand concerning the parent-teacher cooperation?

The importance of the parent-teacher cooperation is confirmed also by the increased number of published studies by contemporary researchers with manifold approaches. We have chosen to present recent papers, of the last decade.

According to the existing modern bibliography, in one study it has been shown that the briefing of parents on the part of the teachers regards only issues of performance and conduct, and that the parents prefer their meetings to take place inside the classroom on a one to one level (Poulou & Matsagouras, 2007). In another study, it is also indicated that in order for the parent-teacher cooperation to be effective, there has to be trust in their relationship (Angelides et al., 2006).

According to Bonia, Brouzos, and Kossivaki (2008), teachers tend to cooperate more with parents whose financial status is higher than their own. However, parents prefer to cooperate with teachers who reside near the
school where they work. The findings of the research by Pnevmatikos, Papakanakis, and Gaki (2008) have shown that a large number of parents consider that their involvement in the school life helps very little in the pupils’ performance, whereas it is more helpful if they get involved in learning and the communication with the tutors. Symeou (2008) argued that “qualified” teachers are those who can find ways to cooperate with parents and can give parents such information that parents may utilize to support their children’s performance at school. The same findings were procured from the research by Fakidou (2013), that is, the fact that the parent-teacher cooperation is limited only to issues of performance in school subjects.

In a research by Taratori-Tsalkatidou (2003), there has come to light the decisive role of the family’s contribution to the pupil’s performance—and not that alone—when the family cooperates with teachers. One more aspect which the teacher-family cooperation positively affects is the pupils’ personalities (Olmsted, 1991).

Giovazolias (2011), in a research presented interesting elements, which indicate that the parent-teacher cooperation is influenced by their financial and social status. In specific, he mentioned that parents coming from a low financial status cannot comprehend the value of such cooperation. He also pointed out that there does not exist any official technique of communication-cooperation between school and family.

Starting Point, Aim, and Method of Research

As a result of studying the aforementioned research papers as well as various other researches, we have concluded that it is crucial to have a two-way information flow between parents and teachers. It has been observed, though, that there are no researches which will deal mainly with the benefits deriving from the parent-teacher cooperation—although there are some indirect references on the issue. This realization has become the starting point of our research aimed at having the parents answer this question “What are the benefits parents gain from their cooperation with the teachers?”.

The sample of the research was 57 parents of pupils attending 6th grade in two primary schools in Alexandroupolis; these parents were given a written letter regarding the aforementioned issue. To achieve the goal of this research, content analysis was used. This is a research technique for the objective, systematic, and quantitative description of the obvious content of oral and written communication (Berelson, 1952, p. 18).

Quantitative Analysis

The analysis of our study data referring to the personal details of the subjects who took part in our study, presents in Table 1 as below: The parents who took part in our study were 57; “women” were the majority, accounting for 68.42%; and the rest (31.58%) were “men.” Male parents were 36-47 years old, while female parents were 29-41 years old.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>18</td>
<td>31.58</td>
</tr>
<tr>
<td>Female</td>
<td>39</td>
<td>68.42</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The references resulting from the study and the processing of the written texts regarding parents’ visits at school showed that almost half of the parents participating in our research visit school every month (see Table 2).
Table 2

<table>
<thead>
<tr>
<th>Answers</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every three months</td>
<td>13</td>
<td>22.81</td>
</tr>
<tr>
<td>Every two months</td>
<td>11</td>
<td>19.30</td>
</tr>
<tr>
<td>Every month</td>
<td>27</td>
<td>47.37</td>
</tr>
<tr>
<td>Once or twice a week</td>
<td>4</td>
<td>7.02</td>
</tr>
<tr>
<td>When they call me at school</td>
<td>2</td>
<td>3.51</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Qualitative Analysis

On the benefits of the relationship with teacher, parents mention that these are: “…forming a better idea about their child;” “…solving problems;” “…better cooperation;” “…pupil’s progress;” “…forming a better teacher-student relationship;” and “the pupil is happy… positive effect on the pupil.”

So, parents mention that establishing a good relationship with the teacher assists equally the parent, the teacher, and the child itself. In particular, the parent is able to form a complete picture of his child and cooperate constructively with the teacher:

Parent (S-35): The benefits are manifold. I get informed by the teacher about the total picture that my child projects, I discuss without hesitation problems in connection to my child and I seek solutions alongside the teacher.

Parent (S-35): Generally, an excellent parent-teacher relationship usually leads to an equally good relationship between teacher and pupil.

Parent (S-56): When a child receives proper treatment from the teacher, I believe that it matures better, understands certain things better, and may face certain situations better. What is more, I believe that the child becomes more sociable, because looking at society, the school classes, and generally the whole environment. It is aided in maturing and socially adjusting.

Parent (S-17): It helps me form a more global opinion of the teacher as a whole, inside and outside the class, and to cooperate with him/her more constructively to my children’s benefit.

Parent (S-20): The teacher helps me get to know my child better, because he/she may be aware of situations about which I’m not informed. The bottom line is, the teacher when he is a good judge is an invaluable assistant for the parents.

Parent (S-21): If the relationship is good you can keep up with things as the child normally grows into puberty, as long as we take an active interest in it. This way his/her performance will be positively affected. Our relationship with the teachers is like a chain link, it is collective effort. If the chain breaks there’s something wrong. Each one of us offers help from his side.

Parent (S-22): Numerous plentiful and on many levels. They concern both parent and teacher and of course the main recipient is the child. When there is a good relationship and cooperation the parent will know what he/she ought to do and the way to help the child. Both cognitively and personality-wise. Furthermore, the teacher can rest assured that he/she has “an assistant-ally” in his work and finally the pupil will yield the fruit of a healthy and constructive cooperation.

Parent (S-23): I will become acquainted with the kind of person the teacher is, I will have a positive idea of the person primarily and secondarily of the teacher. My child associates with a good person. What is important is that my child is gaining a lot from a good person and a teacher.

Parent (S-24): It helps the child in behavioral issues and in becoming incorporated in society. The truth is that you help and are helped at the same time.

Parent (S-10): If something happens to my child I will be immediately notified and maybe the teacher can spend more time on my child if he/she discovers any learning disability.

Parent (S-11): There are no problems created, there is no friction, there is cooperation, understanding and trust.

Parent (S-55): …we “profit” greatly from such cooperation, because in any case the pupils benefits. We get informed about the child’s progress. Both the teacher and the pupil work better. Without this cooperation nothing can be done.

Parent (S-25): The benefits are mainly for the child. On a parallel level this cooperation helps me with regard to how I
should behave to my child. One thing which is of immediate interest to me is that I receive information from the teacher as to whether my child is sociable, who it keeps company with, etc., so that I can determine my attitude, because I think that the development of social skills is crucial.

Parent (S-26): You can help your child in relation to its performance, its character. On the whole, the cooperation between a parent and a teacher is the best aspect of school. A lot of problems may be solved and many benefits can be derived on many levels. It is the only way, I believe, and that the school may move forward.

Parent (S-51): I think that the benefits are so many. Those parents who do not seek out cooperation with teacher are “at a loss,” because it is cooperation that helps you understand where your child stands, what progress it is making, what problems it is facing, where he/she needs to guide you, because we are not fully aware of the teaching process, therefore a teacher who is really interested in fulfilling his/her role can provide us with useful advice, thus aiding the child.

Conclusions

From this research we conclude the following:

If parents cooperate with their children’s teacher, they form a better idea of how children behave at school.

A lot of parents try to get to know the character of their children: How they behave inside the class, which is an important parameter. They believe that the teacher is the most suitable person to speak on this matter.

The parent-teacher cooperation helps in solving problems which arise in class, when the teacher discusses and asks for the parents’ opinion on how to deal with them (there are pupils who need different treatment in the handling certain crises which may come up in class).

Most parents are interested in a healthy cooperation with their children’s teacher and place great importance on it. However, they believe that there should be limits to their interrelationship and that it would be good to restrict this cooperation/relationship within the school premises.

Many parents place great emphasis on cooperating with the teacher as they try to hold frequently such meetings and consider the benefits that arise from this cooperation to be plenty and mainly aimed at their child.

Most of the parents who participated in this research regard this cooperation as being essential for their child’s progress, and the role of the teacher as being irreplaceable.

The benefits derived from the cooperation between parents and teachers are numerous and contribute both to the pupil’s progress and his/her maturing and social adaptation.

To sum up, there can be only benefits from a good relationship and communication between parents and teachers, because they can pinpoint the vulnerable sides of a child and make combined efforts to “treat” them, while at the same time they emphasize and increase the child’s positive elements. Thus, the good relationship assists the pupil, who is the significant person, to enjoy the benefits of the parent-teacher cooperation.

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Professional Identity of Teachers in China*

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Teachers’ professional identity plays an important role in teachers’ teaching and attitudes towards education. Therefore, teachers’ professional identity has already got researchers’ attention in educational field of China, and a lot of study and research has been done on it. The study generalizes that the level of teachers’ professional identity is low in China by reviewing the results of previous research in relevant aspects. Through analysis, the study finds that teachers’ low professional identity in China is caused by teachers’ overwork, unreasonable evaluation systems, and relatively low income. Finally, the study suggests the government and schools solve the problem by improving teachers’ economic status, establishing scientific and reasonable evaluation systems for teachers, and improving teachers’ mental health state.

Keywords: professional identity, teachers, income, evaluation system, mental health

Introduction

On the evening of April 27, 2012, in the teacher’s office of Guantao No.1 Middle School, Hebei Province, on the desk were an empty bottle labeled with “dichlorvos (DDVP),” a “sleeping” middle-aged young man and a farewell letter with only a few words that seemed so “heavy.” All these constituted the tragedy of Zhao Peng.

Zhao Peng, born in 1982, worked as a class teacher in Senior Grade Three of Guantao No.1 Middle School after graduating from college. His daily routine began with the morning exercise with Senior Grade Three students and ended till the students went to bed at night day after day. Perhaps suffering from the pressure from life, work, economy, and some other aspects, he chose to commit suicide at a so early age. In his suicide letter, he said, “Life is really tiring, with endless work everyday so suffocating, with wages nearly used up every month. I decide to leave in this way. I do not hate this place, for it was my own choice to come here after all. Now, my only concern is my son. My only hope is the school can help me to look after my son and my wife” (Liu, 2012).

In recent years, a lot of teacher-suicide news could be found online in China. For example, an English teacher working in Yucai Middle School in Guangzhou committed suicide on October 24, 2008 because of mental depression as she had failed in getting the senior professional title (Lian & Liao, 2008). On April 15, 2015, an excellent 39-year-old teacher working in Yangjiang Town Central School in Qionghai, Hainan killed himself because of too much work pressure (Liao & Wang, 2015). What underlines all these tragedies is no doubt that working pressure, psychological pressure, and life pressure have given current teachers such a hammer blow that most of them have low or negative professional identity.

Professional identity means a person from the bottom of his heart thinks his career valuable, meaningful, and able to offer fun. For everyone in the workplace, professional identity is important, because only the

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recognition and love for the career can make people fully devoted to it (Azman, 2012). On the contrary, if a person feels bored or even dislikes the job, it is hard to arouse his enthusiasm for the work. As for the teachers who bear the responsibility of cultivating students, their professional identity is of extreme significance, because the young generations are the future and hope of a country. But now in China, many teachers are not satisfied with their career, though it seems that teacher is a good job in the public eye. According to the survey launched by Xiaokang, of 100 teachers interviewed, 50% said “No.” to the question “Have you got professional happiness as a teacher?” and 75% said they might or decided to change a job (E, 2013), which also reflects the low professional identity of teachers in China.

In addition, the negative professional identity of teachers in China can partly be revealed in the state of their mental health. In 2016, a research group from Bijie Preschool Education College carried out a comprehensive survey on the mental health state of primary and secondary school teachers in Bijie, China. The result shows that among the 1,440 teachers surveyed from eight primary and secondary schools, nearly 46.39% have psychological problems and 11.81% have mental disorder (He, Yang, Jiang, Yang, & Wang, 2016). What has caused so many danger signals?

Due to the school entrance system in China, the score is everything. Students’ performance in entering a higher school is closely linked to teachers’ vocational certificates assessment and merit pay. In other words, entrance score determines teachers’ status in the school and income. At the same time, teachers begin to face more and more challenges as the education reform has been carried out everywhere. Generally speaking, teachers have to bear not only the heavy work and huge psychological burden, but also the pressure from students’ parents and public at any time. On the other hand, many teachers lead a hard life in the face of rising prices due to the low income. In the research carried out by Lu, Gao, Yan and Sun (2014) on the economic status of primary and secondary school teachers in the rural area of Hebei province, for most teachers surveyed, their monthly income is barely enough for their household expenses, with housing costs not included. What’s more, without institutes and solutions specially dealing with teachers’ mental problems, there is no suitable channel for teachers to unboast their feelings and worries. Some schools have psychological counselors only for students, so over a long period, the low professional identity of teachers would gradually evolve into psychological problems, even one day generate catastrophic effects, bringing serious influence and harm to themselves and students, thus how to maintain and improve teachers’ professional identity is a topic of practical significance.

In the past years, the government and schools have spent both great efforts and money to carry out various kinds of teacher training programs, which to some extent successfully make most teachers more professionally competent for their highly-required job. However, the inner-self of teachers has been ignored most of the time, and the existing problems haven’t been solved. Only when teachers’ unbearable burden and pressure are lightened can those tragedies be avoided. In a word, changes need to be made in teachers’ income, evaluation system, and mental health state in order to foster teachers’ professional identity.

**Low Professional Identity of Teachers in China**

During recent years, teachers’ professional identity has aroused a lot of concern in China. Teachers’ professional identity refers to the emotional experience and psychological feelings produced by teachers (both as individuals and professionals) towards the work they engage in, which is being affected by various factors inside and outside the school and teachers themselves (Goodson, 1994). Professor Shen Jiliang, the director of
the Institute of Psychological Development of Beijing Normal University, believes professional identity is becoming the inner motive power for teachers to achieve self-improvement (Li, Li, & Shen, 2012). Teacher is a special profession that is not only related to the future development of the teachers themselves, but also has a long-term and irreversible influence on a student’s future, so it is particularly necessary for teachers to construct a solid professional identity (Connelly & Clandinin, 1999). Meanwhile, teachers’ satisfaction towards their jobs, work pressure, and burnout feeling level affects professional identity most (Li, Li, & Shen, 2012).

Cassel (1984) stated that if a person has to do the work he has no interest in, he will feel bored and in a kind of exhausted mental state, which leads to difficulty in giving full play to the potential and ability, and drops of working efficiency. Such kind of state is called job burnout. Now, job burnout is quietly infecting an increasing number of “engineers of human soul.” In 2005, the Institute for Organization and Human Resources of Renmin University and Sina Education Channel jointly launched the Chinese teachers’ occupational stress and mental health survey. As can be seen in Figure 1, 34.60% of the surveyed teachers reflected the pressure was too much, and 47.60% reflected the pressure was heavy, which together accounted for 82.2% of the surveyed teachers (Li, 2005). What is more, in Figure 2, the result of the survey shows that 27.5% of the surveyed teachers had at least mild job burnout feeling, 29.50% of surveyed teachers had moderate job burnout, and 29% of the teachers surveyed are in accordance with the highest job burnout level (Li, 2005).

Students’ psychological health has been attached much more importance in China, teachers’ psychological health problems, however, have been ignored for a long time. At present, the psychological health state of primary and secondary school teachers is worrying, which partly indicates the negative professional identity of teachers in China. As is demonstrated in Chinese teachers’ occupational stress and mental health survey, 38.50% of the teachers surveyed had poor mental health, and only 28.80% of the surveyed teachers’ were mentally healthy (Zhang & Lu, 2008). Another survey about primary and secondary school teachers’ psychological health state in Bijie found that 46.39% of the teachers involved had different degrees of psychological problems or mental disorders, 33.47% had obsessive-compulsive disorder, 22.36% had interpersonal sensitivity, 24.37% had melancholia, and 20% had anxiety (He et al., 2016). Although the statistics vary from areas, what should be paid great attention is that our country’s primary and secondary school teachers’ psychological health problem is very serious.
Causes of Low Professional Identity of Teachers in China

At present, many primary and secondary school teachers are still under a lot of work pressure. Parents’ high expectations for students, high requirements from society, fierce competition on teaching quality and graduation rates, continually-increasing class sizes, serious shortage of teachers have caused the overload of teachers. In addition to the busy work during the day, many teachers also need to stay up late to prepare lessons, correct students’ homework, and write papers. Year after year, physical and psychological fatigues are easily produced under such overload of work and pressure, which resulted in many teachers’ physical and mental conditions getting worse.

Actually, many teachers’ psychological problems are not only caused by teachers’ overwork and pressure, but also mostly by enormous pressure brought by the current assessment mechanism. In quite a number of primary and secondary schools in China, teachers’ assessment, promotion, and salary are closely linked to students’ test scores, which have been used as a primary means to arouse the enthusiasm of teachers for teaching. These schools use the passing rate of tests and the number of students entering key high schools and key universities to evaluate the performance of teachers who teach graduating class. For other teachers, the evaluation is dependent on the ranking of the classes in the grade, or the ranking of scores in the district. In other words, once the students’ scores are not good, not only teachers would get criticized, but also their monthly income and career promotion would be affected.

At the same time, teachers’ income is too low compared with their contribution to work. The survey carried out by Lu, Gao, Yan and Sun (2014) on the economic status and living condition of primary and secondary school teachers in the rural area of Hebei Province shows that more than 40% of teachers involved hope to raise revenue, more than 60% are not satisfied with their income, 86% said their salaries were only around 1,000 RMB ( $150) to 3,000 RMB ( $450), and only 10% earned more than 3,000 RMB ( $450) per month, while the house price there was between 2,000 RMB ( $150) per square to 3,000 RMB ( $450) per square. Consequently, in the face of high cost of daily necessities and high prices of houses, life is hard, and life pressure is particularly heavy for teachers.

Nowadays, mental health issues in schools are increasingly taken seriously in China, but the attention is mainly focused on how to maintain and strengthen the mental health of students, while teachers’ psychological health is almost neglected. The truth is, however, teachers’ psychological problems have become increasingly
prominent on account of the high pressure from work, life, and society (Sun, Wu, & Wang, 2011). Additionally, poor psychological state of teachers is related to their lack of psychology knowledge. The experts in Psychological Development Research Institute of Peking University stated that only 9% of courses offered by China’s higher normal schools are about pedagogy and psychology, which is too low compared with 20%-30% in many developed countries (Sun, Wu, & Wang, 2011). Furthermore, when teachers find they have some mental problems, there is no suitable channel for teachers to unbosom their feelings and worries. Many schools have psychological counselors only for students, but no institutes and experts specially dealing with teachers’ mental problems, which makes things worse.

**Improving Teachers’ Economic Status**

The economic treatment of teachers is closely related with their interests, and has a significant impact on their career development and attractiveness of this profession, so the government should establish a guarantee mechanism to raise teachers’ economic status at all levels.

Firstly, the government should take effective measures to guarantee teachers’ average income level not be lower than that of the national civil servants in some areas, which has already been clearly defined in Teachers Law of the People’s Republic of China. Secondly, the government should perfect policies regarding rural teachers’ salaries and career promotion. For example, providing higher income for teachers in rural areas in order to attract more talents to devote to long-term teaching there. Thirdly, the government and schools should set or perfect teachers’ housing policy. For example, providing special apartments at cheaper price for prominent teachers and young teachers to arouse their enthusiasm for teaching career.

**Improving Teachers’ Evaluation System**

Evaluation on teachers needs to be comprehensive. In the first place, schools should put an end to the evaluation of teachers just based on students’ test scores and graduation rates, as students’ test scores and graduation rates can not reflect a teacher’s performance objectively. By conducting a scientific and reasonable evaluation of teachers’ performance, schools could encourage teachers to take the initiative to pay more attention to the healthy growth of students, students’ character development, and the cultivation of students’ learning, living habits, and abilities. For example, in Shandong Province, communication with parents and students, help for learning difficulty students, the situation of students’ learning and behavior habit, students’ psychological health level, and sports passing rate are all incorporated to teacher’s evaluation standard, which totally switches teacher’s evaluation from scores-oriented to giving priority to all-round education (Liu & Zhao, 2013).

Moreover, schools should diversify the main body of evaluation in order to guarantee the fairness and objectivity of evaluation, such as the four evaluation sources: experts, students, peers, and administrative staff. Usually, the data from administrative staff plays a very important part in evaluation, but there are a lot of weaknesses. On one hand, administrative staff are not students. They are not participants and direct consumers in teaching, so they could not decide whether a teacher’s teaching is good or bad. On the other hand, because of the academic characteristics of course teaching, the evaluation from administrative staff is not entirely true to reflect the actual teaching. In fact, many teachers are usually afraid of the principal with a smattering of assessment to evaluate them. Therefore, if the peer-assessment or expert evaluation is employed, the effect of teacher evaluation will be better. For example, the Teacher Evaluation System applied in Cincinnati Public
Schools in Ohio mainly uses peer mutual pattern, with principals’ scores only account for 25% of the teachers’ final scores, which has obvious promoting-effect for both teachers and students (Tyler & Tyler, 2012).

**Improving Teachers’ Mental Health**

Firstly, the administrative department of education should set up teachers’ mental health research institute for professional research, dealing with counseling and management of teachers’ psychological health problems. For example, opening a teachers’ psychological health consultation service hot line for teachers to relieve stress is a practical solution. It is reported that Teachers’ Psychological Consulting Center has been established in Chaoyang district, Beijing, in order to help teachers bear pressure. Up to March of 2011, 94 teachers had been to the center for face-to-face counseling, 2,516 counseling phones have been answered (Zhang, 2011). The consulting center now has become the main platform of teachers’ psychological crisis intervention in Chaoyang district, Beijing.

Secondly, as managers of education, schools should strive to create a harmonious internal environment for teachers, organize confidential psychological test and investigation for teachers regularly, carry out psychological counseling together with social institutions. For example, schools can set up “psychological consulting room” especially for teachers or offer subsidies for teachers’ psychological counseling. Schools can also invite experts to give lectures to teaching staff on how to do self-adjustments when meeting psychological problems.

In the past years, the government and schools have spent both great efforts and money on carrying out various kinds of teacher training programs. For example, the Ministry of Education has issued opinions about strengthening the primary and secondary school teachers training work, with special emphasis on rural areas. So, all the primary and secondary school teachers should take part in the training programs. Most of the training programs focus on new curriculum and teaching methodology, which to some extent successfully has made most teachers more professionally competent for their highly-required job. However, the inner-self of teachers, such as teachers’ mental health, is still neglected in most training programs and the problems leading to low professional identity of teachers could not be solved just by additional teacher training.

On the other side, improving teachers’ economic status, evaluation system, and mental health helps to enhance teachers’ professional identity. Based on the statistics in the study of Teacher Evaluation System in Cincinnati Public Schools in Ohio, it is clear that a reasonable design of teachers’ evaluation system will not only have a positive impact on the quality and identity of teachers, but also encourages the students to obtain a better academic achievement (Tyler & Tyler, 2012).

**Conclusion**

Teachers’ professional identity is closely related to the healthy and harmonious development of education, so government and schools should attach great importance to it. However, from teachers’ dissatisfaction towards their work, their high job burnout level, and seriousness of mental health state, we can find the professional identity of teachers in China is very low. There are a lot of factors leading to this problem. Teachers’ heavy and overtime work, as well as the unreasonable evaluation systems, has brought them heavy pressure. Besides, low income of teachers exposes them to pressures from life. What is worse, teachers have not been offered effective access to solutions when mental problems finally appear because of unbearable pressure. Therefore, by improving teachers’ economic status, establishing scientific and reasonable evaluation
systems for teachers, and improving mental health condition, the government and schools could manage to solve the problem of low professional identity of teachers.

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Problem-solving Skills of U20 FIFA World Cup Volunteers

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Federation International Football Association (FIFA) U20 World Cup was held in Antalya, Bursa, Gaziantep, İstanbul, Kayseri, Rize, and Trabzon on June 21-July 13, 2013. The purpose of the current study is to investigate the problem-solving skills of the volunteers serving different duties in FIFA U20 World Cup. The participants of the study consist of 190 females and 485 males, totally 675 volunteers taking the basic volunteer training. In order to investigate the problem-solving skills of the participants, problem-solving inventory (PSI) developed by Heppner and Petersen was employed. In the analysis of the collected data, Mann-Whitney U test and independent samples t-test were utilized. It was determined that the participants’ problem-solving skills vary significantly depending on their cultural background, educational status, and gender.

Keywords: sports organizations, volunteering, problem-solving, 2013 FIFA U20 World Football Championship

Introduction

Occupying an important place in the management process of sports organizations, human resources management is a field that can yield important findings for institutional development as well as for organizational success. For the construction of a problem-free organization, management techniques used within organizations should be carefully planned. Thus, strategies used for the management of both paid and unpaid voluntary human resources are of great importance.

Human resources managers of sports organizations conduct their work on two different target populations that are paid human resources and unpaid voluntary human resources. The need for qualified human resources for the planning of organizations is met, considering the financial conditions, through paid workforce and voluntary human resources. Participation of volunteers in organizations is gaining greater importance due to economic and human resources related reasons and it has become an important field of research in the management of sports organizations in recent years.

Federation International Football Association (FIFA) U20 World Football Championship, one of the biggest sports organization of the history of Turkey, was first hosted by Turkey in different cities of the country, such as İstanbul, Bursa, Antalya, Kayseri, Gaziantep, Trabzon, and Rize on June 21-July 13, 2013. For this organization to be perfect, great efforts were invested for the arrangement of its human resources as well as its infrastructure and technical aspects.

The most important role is played by volunteers for sports organizations to be successful. Big organizations

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can achieve their targets with the help of volunteers. Volunteers working in international sports organizations occupy positions as important as the ones occupied by professionals (Sertbaş et al., 2004). Volunteers who are assigned to duties within the organization on the basis of their personal qualifications make important contributions to the success of the organization. During the activities within the organization, volunteers are continuously in contact with “clients.” Thus, they need to meet clients’ needs and wishes. However, volunteers are not paid in return for their efforts and work. Volunteers spend their time and energy and utilize their talents and skills for the organization to run smoothly. Therefore, organization committees carefully examine the motives, qualifications, needs, and expectations of volunteers, so that they can make optimal use of them during the organization (Auld & Cuskelly, 2001).

There are six factors motivating people to be volunteers, which are altruism, sense of social and ethical responsibility, sense of egoistic obligation, desire to gain new experiences, wish to spend leisure time, and to develop their personal talents (Griffiths & Armour, 2012). The importance of volunteers for sports organizations has been increasing in recent years. Volunteers have become an important part of sports organizations and an important element of sports management (Yu-fang, 2004). Particularly, in Olympic Games in which the number of athletes is high, a large number of volunteers are needed. In many countries, involvement of volunteers in sports organizations is viewed to be very important for the success of the organization (Nichols et al., 2003).

**Literature Review**

Sports organizations involve the movement of athletes and spectators, bring about some economic side-effects, last for a limited time period, and are generally subject to intense media interest (Jun, 2005). In addition to their psychological, political, and administrative effects, organizations have economic, social, and ecological results (Hai, 2003). Sportive competitions and the services required by them, such as transportation, technical infrastructure, and food and beverage services are at the center of the large organizations, such as the Olympics. The arrangements are not limited to these and some other activities, such as festivals, can also be organized. Therefore, involvement of volunteers in such arrangements as well as sports activities is of great importance for the success of the organization as a whole (Nichols & Ojala, 2009).

There are many reasons behind volunteers’ willingness to take part in such organizations. Objectives, such as developing personal skills and utilizing them in the organizational process, making a contribution to the success of the organization and to the social development, being appreciated by the society, and being successful in professional life lead individuals to be volunteers in sports organizations.

From their birth onwards, human beings have to respond to stimuli coming from their external and internal worlds. Each stimulus can result in a problem situation of the individual. The success of the individual in coping with this problem situation positively affects his/her self-confidence and personality (Kiremitçi, 2012).

In this regard, first, the definition of the concept of problem should be given. There are different definitions of the concept of problem in literature. Kalaycı (2001) defined it as “a state of tension, imbalance, incompliance, and uncertainty.” According to the Turkish Language Association Dictionary (2013), the concept of problem is defined as an issue that should be learned through investigation and solved by thinking and concluded.

According to Morgan (1999), problem is “a state of conflict in which the individual encounters an obstacle preventing him/her from reaching a target.” Bingham (1998), on the other hand, defined it as an obstacle standing against the forces accumulated by the individual to accomplish an objective. Heppner and Krauskopf
(1987) explained the concept of problem as problems and psychological disturbances faced in the daily life. Problem is defined in general as a state hindering people from reaching their targets, posing some challenges for them, and arousing a sense of distress in them. Encountered and solved once, the problem situation is not considered to be a problem when faced once more. There are various types of problems, such as long-term, short-term, simple or complex, emotional, economic, and physical. Different types of problems may combine with each other and yield big complex problems (Cüceloğlu, 2003).

Problem-solving requires time, effort, energy, and practice. It is also multi-dimensional as it is related to the individual’s needs, objectives, values, beliefs, skills, habits, and attitudes and entails the integration of various elements, such as creative thinking, intelligence, emotions, willpower, and action (Kiremitçi, 2012). Problem-solving is closely associated with the psychological compliance of the individual, his/her self-confidence, effectiveness of his/her communication skills, his/her decision-making styles, and academic and social self-esteem (Yerli, 2009). It is known that activities performed voluntarily enhance these personal characteristics and have positive effects on the utilization of decision making and other skills. Problem-solving entails the selection of appropriate actions to reach a goal, construction of alternative solutions to difficulties experienced, evaluation of the alternatives, selection of the best alternative, and a systematic process of intervening with undesired situations (Evans, 1991). According to another definition, problem-solving is a cognitive and behavioral process, involving the construction of effective response alternatives for a problematic situation and selection of the best alternative from among the possible options (D’Zurilla & Goldfried, 1971).

Mark (1994) stated that the stages to be followed during the process of problem-solving are defined by John Dewey as follows: Perception of a challenge, specification of the challenge, proposal of alternative solutions, evaluation of the weakness and strengths of the proposed solutions, and testing of the solution. Ulupınar (1997) found that socio-demographic features, such as age, marital status, family attitudes, living alone, way of defining himself/herself, and professional status are effective in identifying the source of the problems, the problems experienced, attitudes and behaviors adopted to solve the problem, self-evaluation of the performance in problem-solving, and perception of one’s own problem-solving skills.

Problem-solving skill can be defined as an ability to develop analysis and identification strategies for different types of problems, to design a method for the selected strategy, and to evaluate the outcomes (Mettas & Constantinou, 2006). This skill enables individuals to adapt to social life and to make contributions to social development (Erden, 1986). In sports organizations, this skill has a particular importance for the effective management and maintenance of the organization. Anderson (1980) defined problem-solving primarily as focusing on the target by using cognitive methods. In this regard, what is first expected from the worker is to focus on the problem and to find a solution by using his/her cognitive skills. It is reported that when compared to individuals who can effectively solve their problems, individuals who cannot effectively solve their problems experience more anxiety and lack of self-confidence, are less efficient in understanding others’ expectations, and have more emotional problems (Heppner & Baker, 1997).

Determination of the problem-solving skills of volunteers is of great importance for the success of any organization, because volunteers are people selected to serve some functions in the organization according to their knowledge and skills. Thus, the determination of the problem-solving skills of the volunteers recruited in FIFA U20 World Football Championship might yield findings that will increase the success of future organizations. In addition to this, in the relevant literature, it is reported that individuals doing regular exercise can establish better relationships (Johnson, 1966; Siedentop & Van der Mars, 2004) and can be more successful
in resolving conflicts and problems (Sözen, 2012; Wright, Burrows, & MacDonald, 2004). Thus, the current study aims to investigate the problem-solving skills of the volunteers.

**Method**

The method of the current research is the field research aiming to investigate events and phenomena in their natural settings and for this purpose, survey model was employed in the study. Survey model aims to describe a situation as it is. The subject, individual, or object under investigation is defined in its own conditions and as it is. No effort is made to change or affect it. What is important is the observation and specification of what is wanted to be known (Karasar, 2005).

**Study Group**

The participants of the study are 1,000 volunteers recruited in the cities of Antalya, Bursa, Gaziantep, İstanbul, Kayseri, Rize, and Trabzon for U20 World Football Championship. A questionnaire was administered to 780 participants and 675 of the questionnaires were found to be suitable for analysis. All of the volunteers participating in the current study underwent basic volunteering training, team-work training, and briefing about their units.

**Data Collection Instruments**

**Problem-Solving Inventory (PSI)**

Measuring the individual’s self-perception of his/her own problem-solving skills, this inventory was developed by Heppner and Peterson (1989). This is a Likert-type scale consisting of 35 items whose response alternatives range from “1 = I never behave like this” to “6 = I always behave like this.” The scoring is performed in a reverse order for negative items. The higher the score taken from the scale is, the lower the individual’s perception of his/her own problem-solving skills is. The score that can be taken from the inventory varies between 32 and 192. Low scores indicate a higher efficiency in problem-solving and high scores indicate a lack of efficiency in finding effective solutions to problems (Taylan, 1990). Turkish adaptation study of the scale was performed by Savaşır and Şahin (1997). For the current study, internal consistency of the scale was calculated with Cronbach Alfa statistics and found to be $\alpha = 0.78$.

**Data Collection**

The inventory was administered to the participants during their spare time while the organization was still proceeding. First, the participants were informed about the inventory, and then asked to complete it. Then, the inventories were collected and examined by the researchers and 105 inventories found to be uncompleted or erroneous were excluded from the analysis.

**Data Analysis**

In the analysis of the collected data, descriptive statistics standard deviation, independent samples t-test, and Mann-Whitney $U$ test were used and the significance level was set to be 0.05.

**Findings**

Mean, standard deviation, minimum and maximum values related to PSI are presented in Table 1. Kolmogorov-Smirnov test was used to determine the normality of the data distribution and Levene’s test was used to assess the equality of variances before analyzing whether there is a statistical difference in the
mean scores of PSI, according to variable of being a referee in different sport branches. The analysis yielded that data distribution related to PSI is normal ($p > 0.05$). However, variances related to data do not show homogeneous distribution ($F = 35.153; p = 0.000$). The result of Mann-Whitney $U$ test, which is a non-parametric test, is shown in Table 2, subsequent to the fact that parametric test assumptions were not met.

**Table 1**

*Volunteers' PSI Values*

<table>
<thead>
<tr>
<th>Score</th>
<th>$N$</th>
<th>Minimum</th>
<th>Maximum</th>
<th>$\bar{X}$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI</td>
<td>675</td>
<td>56</td>
<td>125</td>
<td>93.28</td>
<td>8.47</td>
</tr>
</tbody>
</table>

**Table 2**

*Mann-Whitney U Test Result According to Variable of Being a Referee in Different Sport Branches*

<table>
<thead>
<tr>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
<th>Mann-Whitney $U$</th>
<th>$Z$</th>
<th>$p$</th>
<th>Levene’s $F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteers</td>
<td>675</td>
<td>77.21</td>
<td>8103.00</td>
<td>2278.00</td>
<td>-5.357</td>
<td>0.000$^*$</td>
<td>33.221</td>
</tr>
</tbody>
</table>

Notes. $^*$ $p < 0.05$; and $^{**}$ $p < 0.05$.

When examined Table 2, Levenes’ test result shows that variances do not distribute as homogeneous ($p < 0.05$) and findings related to Mann-Whitney $U$ test yield a statistically significant difference in favor of volunteers ($p < 0.05$). High scores obtained from PSI show that one cannot find effective solutions for the problems faced.

**Discussion and Conclusion**

When the mean scores of PSI are analyzed, it can be said that volunteers got moderate points. In his study, Kaya (1992) found high correlations among perceived problem-solving levels of university students and level of self-respect, level of continuity of self-values, level of depressive affect, level of confidence to people, level of criticism sensitivity, level of psychosomatic symptom, and level of feeling menace in interpersonal relationship. Wright, Burrows, and MacDonald (2004) reported that athletes having serious injuries can overcome this period more easily by using effective problem-solving skills. The role of problem-solving skills in dealing with internal and external problems encountered during the period of recovery from an injury was found to be very significant.

Öztürk, Koparan, and Efe (2009) emphasized that a good sport manager must have more humanity proficiency as much as management proficiency. They further stated that a manager must love sport, athletes, and the other sport employees, must determine beforehand the target of contribution to sport, must read and follow the broadcasting related to sport, and must improve himself/herself. As a volunteer, worker also must follow the suggestions given above and be receptive to the modernity related to sport. They must have good relationships with the other employees and athletes; must be honest and hardworking; must have the best education, if possible; must know at least one foreign language or try to learn; must prefer country expediencies to their expediencies; must be a good organizer; must give enthusiasm and inspiration group members and must have a good working motivation; must organize the targets according to situation; must be careful while distributing responsibilities; must make difficult decisions; and must be a good negotiator.

Türkçapar (2009) found that the problem-solving mean score of the students from the school of physical education does not vary significantly depending on variables, such as their monthly income levels, social milieu, and most popular activities they are engaged in their spare time, but varies significantly depending on their
gender and grade levels. D’Zurilla and Goldfried (1971) concluded that undergraduate students educated within
the framework of social problem-solving model, when compared to the control group students, produce more
effective alternatives to their problems and during the solution of these problems, their auto-control increases,
and thus they can control their anger better and make less use of carelessness style.

Öztürk, Koparan, and Efe (2008) conducted a study with the participation of individuals engaged in
boxing and found that these individuals possessed medium level of problem-solving skill and with their
decreasing level of recklessness and their problem-solving skills were improved. Johnson and Johnson (2004)
carried out a meta-analysis and reported that while the students taking part in a problem-solving skill training
used to capitalize on the strategies of win-or-lose, resorting to power and retreating before the training, they
showed a tendency to employ problem-solving process after the training. Pakaslahti (2002) found that the
problem-solving skill mean score of the girls was higher than that of the boys and the difference was significant.
Canan and Ataoğlu (2010) stated that individuals doing regular exercise have a more optimistic viewpoint of
life and accordingly they have stronger problem-solving skills.

Chang (1998), Elliot, Godshall, Shrout, and Witty (1990) reported that individuals having higher levels of
problem-solving skills are more successful in academic and social life. Greening (1997), Joffe, Dobson, Fine,
Marriage, Glenn, and Haley (1990) found the PSI perceptions of the students not using tobacco and alcohol
were better than those of the students using tobacco and alcohol and the difference between these two groups
was significant. Deficits in problem-solving skills might lead to problems, such as substance abuse among
young people. Kruger (1997) pointed out that individuals not only need to possess problem-solving skills, but
they also need to rely on their skills. Hoffman and Spatariu (2008) found that there is a positive significant
relationship between adolescents’ social and emotional self-efficacy beliefs and their problem-solving skills.
Research on children revealed that as they grow up, childrens’ social problem-solving skills become more
effective (Battistich et al., 1989).

Research on volunteers (Nichols et al., 2003; Jun, 2005; Hai, 2003; Nichols & Ojala, 2009) showed that
the success of sports organizations is directly related to the performance of these people. Social skills, such as
problem-solving skills possessed by these people are of great importance for the success and efficiency of the
organization.

As a conclusion, the current study revealed that the volunteers’ problem-solving skills vary significantly
depending on their cultural background, educational status, and gender. Parallel to this finding, the national and
international literature shows that people with developed problem-solving skills are physically healthier and
can make better cognitive evaluation of occurrences and situations. It is believed that it is particularly effective
on individuals’ problem-solving skills in the developmental period. Considering that the athletes in U20 are in
their late adolescence, it is expected that the athletes actively engaged in sports activities in this period should
have effective problem-solving skills. It is thought that individuals’ willingness also has an effect on these
results.

In light of the findings of the current study, some suggestions can be made. In sports organizations, like
U20, the performance of volunteers is of great importance. It was revealed that the volunteers can play a very
important role for the success of the organization. In this regard, it is suggested that more research should be
directed towards volunteers in Turkey. Training programs should be developed for volunteers to take part in
football organizations, and thus, more importance should be attached to the training of such volunteers
particularly by the Turkish Football Federation.
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The Right to Preschool Education in São Tomé and Príncipe: Dilemmas and Challenges in the Conception of a Legal Framework

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This paper falls within the work of cooperation with the government of São Tomé and Principe and with the United Nations International Children’s Emergency Fund (UNICEF), whose purpose is to create the Preschool Education Act and the Statutes of Education Institutions operating in the same level of education. The complexity and the relevance of this work to the present and future of the children of São Tomé and Principe demand from us a huge responsibility concerning its realization and a critic surveillance regarding the potential effects of “contamination” with transfrontier political guidelines and of “policy borrowings,” which do not have into consideration the realities of the country, its cultures, its different social conditions and conceptions of childhood and of family, and its different patterns of organization and of intrafamily relationships. We adopted, in our approach to this project, the starting point, theoretically and ethically grounded, that it was necessary to free ourselves of a adultcentric point of view of childhood and of apriorisms that are stuck to the image of the country. Our analysis centers on two dimensions: (1) On the dilemmas that we face in the task of conceiving the “policies” of child education to the child population of an African country, in our condition of European researchers and teachers; and (2) In the process of shared making of that legal framework, focused on the realities of the country, especially on childhood, family, women, and labor conditions. A debate is going on about the proposed solutions that have been suggested, which, in an articulate fashion, respect children’s right to education and leisure, value children’s experiences, and attend the interests of families and of the community development.

Keywords: preschool education, children’s rights, educational policies, cooperation

Introduction

This paper falls within the work of cooperation with the government of São Tomé and Principe and with the United Nations International Children’s Emergency Fund (UNICEF), whose purpose is to create the Preschool Education Act and the Statutes of Education Institutions operating in the same level of education. Its goals are identifying the dilemmas we are faced with, when we idealize policies for child education directed to the children of an African country, in our quality of European researchers and teachers; reflecting on the shared making of this legal framework, with a focus on the realities of the country, especially on the living conditions of children.

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families, women, and of labor, and discussing the solutions that have been forwarded, which, in an articulate way, respect children’s right to education and leisure, value children’s experiences, and attend the interests of families and of the development of the community.

The right of the children of São Tomé and Príncipe to education, to culture, and to protection are warranted in the Educational System Act (Act No. 2/2003-LBSE), which is the cornerstone that sustains the proposal of a Preschool Education Act. It is up to state institutions, thus, to find the ways to warrant the access (and success) of all the children of São Tomé and Príncipe to a system that respects these rights, and that fosters a set of social-psycho-pedagogical goals that effectively create the conditions favorable to full personal development of every child. The assurance regarding the implementation and use of this (those) right(s) with children aged from zero to six years old, implies making universal a system of preschool education that attends the needs of the individual, social, and geographical diversity of the children of São Tomé and Príncipe. The Constitution of São Tomé and Príncipe also prescribes that the education of children, within a structured educational system, whose responsibility the State ought to assume, should be developed in an articulate way with the values and beliefs of São Tomé and Príncipe and in collaboration with the families.

The general methodology we adopted to achieve the goals of the protocol consisted on the analysis of the literature, on the observation of missions in the field, and on the realization of “focus group” with different entities. Subsequently, we materialized the staged drafting of documents, which were successively evaluated by the local educational agents. During the development of this paper, we shall detail some of the different stages of this process.

Based on the goals previously outlined, we shall begin by identifying the dilemmas that we are faced with in the task of achieving a legal regulation, which puts in writing the respect for the rights of the children of São Tomé and Príncipe, and is regardful and preventive of the risks of contamination from deterritorialized ideologies and policies. Next, we shall present the dynamics developed in the course of this process, and in the end of the paper, we shall perform a final evaluation of the missions realized.

Dilemmas in the Cooperation Process

With the presuppositions enumerated in the previous paragraph as our starting point, we were charged of the challenging task of preparing the draft of the Preschool Education Act, as well as the draft of the Statutes of the Preschool Education Institutions.

Upon our acceptance of the making of these references for a policy of education for an African country, we were immediately faced with a set of dilemmas, explicitly enunciated, which we tried to resolve along the whole process: as trained teachers and researchers, with an already lengthy professional trajectory, which was developed in Europe: How could we make these legal instruments, simultaneously respecting the (existing and emerging) conditions of an African country? Contaminated with Eurocentric conceptions of educational policies, as we were, how could we achieve a state of critical decentration? Familiar with, and producers of, sociological and pedagogical research in a reality common to countries with a high level of development, how could we see, and propose the betterment of, child education in a so-called “peripheral” country, respecting its emerging process of development?

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Processes of Globalization and Transnationalization of Educational Policies

Reflecting on preschool education for this African country compels us, from the very beginning, to be aware that we start from conceptions of educational policies integrated in a globalization process, characterized by transfrontier processes, and by a “hegemony of the North” (Santos, 2004; 2010), in other words, through which the ways of thinking of the North hemisphere seeks to impose its influence over the South hemisphere. Our being aware that these has been contamination “and borrowing effects of policies” (Walford, 2001; Barroso, 2003), in the process of definition of those policies, often in an uncritically fashion, has kept us permanently vigilant, seeking to avoid the reproduction of production practices which are alien to local realities. Thus, we recognize how important it is to be aware of the “influence context” and of the “policy production context” (Bowe, Ball, & Gold, 1992) in the process of elaboration of legal documents, in a way that allows us to try to be vigilant and critical in the process of making proposals for these drafts.

Our stance follows the lead of post-colonial studies, which seek to present a critical analysis, grounded in a theory that calls into question the determinism of an European, Westerncentric standpoint (Sanches, 2012), that has been imposed to the so-called peripheral countries. Post-colonial studies warn us, and at the same time, challenge us, since our knowledge is formed in the North; these are our references, of which we need to decenter ourselves, in order for us to get to know, and give a contribution to the making of policies that legitimize the knowledges, the feelings, and the interests of Africans.

Supported on a line of thinking of a critical education, of an education to foster emancipation, and attentive to the words of Bourdieu and Passeron (1978), which make us aware that “the excluded ones reproduce their own exclusion,” we seek to deconstruct the Eurocentric discourse, discussing it with the local actors, so as to be able to define the role of education in the lives of the children of São Tomé and Príncipe. In this African country, several international organizations (Organisation for Economic Co-operation and Development (OECD), UNICEF, World Bank, among others) are actively working, and we ought to know their actions, and especially, their underlying conceptions. Although we recognize the relevance of these organizations to the development of São Tomé and Príncipe, we assumed the task of getting to know the extension of the influence of these organizations in the lives of the children of this country, as well as the “contamination and borrowing of transnational policies effects” they bring to the society of São Tomé and Príncipe (Walford, 2001; Barroso, 2003).

The Conceptions of Childhood and of Preschool Education

Other set of dilemmas that we face are related with the target audience of the policies of preschool education, namely, the children. Our starting points are social studies on childhood, especially the ones on sociology of childhood, on policies on childhood, and on childhood education.

Sociology of childhood, in its theoretical, structuralist, interpretative, and critical guidances (for example, from the contributions of Qvortrup, 1991; 2010; James, Jenks, & Prout, 1998; Prout, 2010; Corsaro, 1997; Sarmento, 2013), urges us to take into consideration, in the elaboration of educational policies, the structural conditions that characterize childhood in this country, as well as the children with their idiosyncrasies and their cultures. We are aware of the fact that there are conceptions of preschool education that are yet considerably branded by the process of “childhood re-institutionalization” (Sarmento, 2013): Childhood was brought to school, and school has been creating a regulation that reinforces some negative stigmas in children—the child still cannot, is not capable of, does not have the right to this or that. According to this perspective, one that we rebut, preschool education is understood as compensatory, capable of meeting children’s incompletenesses. Other dilemma is
related with our knowledge that educational policies for childhood, globally, are based on neoliberal hegemonic conceptions, which have been diversifying provision and contents of childhood education (Vilarinho, 2012; 2013; 2015), privileging a preschooling orientation, whilst our stance is bound to critical perspectives.

The contributions of social constructionism to childhood education (Katz, 1977; Vygotsky, 1998; Formosinho, Kishimoto, & Pinazza, 2007; Hohmann, Banet, & Weikart, 1992; Malaguzzi, 1999; Spodeck, 1982; Spodeck, Saracho, & Davis, 1987; Moss, 2015; Vasconcelos, 2002) allow us to put into question, as well models of childhood education, making us adopt a stance that establishes the rights of children, warranted in the Convention on the Rights of the Child, grounded on the scientific studies carried out in this field, and that is in accordance with the international quality requirements, duly contextualized in the reality of São Tomé and Príncipe.

Training Teachers—To Emancipation or to Reproduction of the Status Quo Utilitarianism?

One other dilemma is related with our stance towards the training of teachers, and its congruence with the tenets of education (effectively in development and rhetorically desired). In the light of an emancipatory discourse, which advocates children’s whole development, and prepares active and intervening citizens in the making of a developing country, we detected pedagogical interventions strictly preschooler, with a propaedeutic and immediatist nature.

In a short synthesis on the dilemmas that we are faced with, and based on our knowledge on the training of teachers, on which we have been reflecting in several of our texts (Sarmento, 2002; 2009a; 2009b), we are able to state that they have, as their starting point, taken into account our awareness on our own Eurocentric training and socialization and the risks of our not being able to completely strip ourselves of those references, in a way that should allow us to act in other context, characterized by its own values.

Other dilemma centered on childhood conceptions, on the ethical need for us to focus on the children of São Tomé and Príncipe and on their specific cultures. Finally, the relevance of an intervention on a training of teachers that is capable to be consistent and congruent with a creative and emancipatory preschool education.

Managing the Dilemmas: A Collaborative Process of Construction

From a critical reflection on these determining factors, in the process of policies making, we have, then, started to get familiar with the settings where our work was going to be realized, trusting in a participatory methodology, requesting an effective collaboration of the local actors. Thus, as the process is concerned, after we have carried out a documental analysis of the legal references and relevant studies: (1) We hold meetings with the leadership staff, to make a diagnosis of the situation and to define work methodologies; (2) We proceeded to a stage of observation of the different contexts; (3) We developed some “focus groups” with people and entities involved in the process (teachers, non-governmental organizations [ONGs], Caritas Internationalis, Misericórdia, social assistance, associations, federation of ONGs, and others); (4) We conducted a survey on the various entities which could become partners of the State in basic education; (5) We analyzed opportunities and constraints to an education communitarian movement; (6) We identified alternative models of childhood education, with children and their families; (7) We held periodical meetings with the different groups of actors, to realize a shared revision of the making of the legal framework; (8) We idealized the drafts of the Preschool Education Act of São Tomé and Príncipe and of the Statutes of Preschool Education Institutions of São Tomé and Príncipe; and (9) We
realized a public presentation of these references, and finally, delivered them to the authorities that requested our work.

In a short notice to each one of these items, we should like to highlight the following: Our analysis to the documents allowed us to stress the purpose established in the Educational Policy Chart of promoting and expanding preschool education, in the light of its relevance to the developing of children, and also, of the country itself. The identification of this priority demands a huge expansion, and the local government agencies consider that it must be mandatory. Even though, for us, in our quality of European researchers, this obligatoriness is questionable, our contact with the reality of São Tomé and Príncipe has allowed us to understand that, in this context, this obligatory nature, implemented to children aged four years old and more, shall constitute itself a way of guaranteeing those children the universalization of the system, the opportunity of guaranteeing these children their integration in the system and their right to a daily hot meal.

The Education System Act of São Tomé and Príncipe (Act No. 2/2003-LBSE) warrants that “All of the citizens of São Tomé and Príncipe are entitled to education and culture, according to the wording of the Political Constitution (1st Paragraph, 2nd Article, 1st Chapter), being that principle understood as the foundation to promote a democratic society and warrant of an effective implementation of the right everyone must have to a fair equality of opportunities. According to Law of Education, issued in 2003, preschool education is optional, and it is directed to all children aged from zero to six years old, being up to the State to, through the Ministry of Education, Culture and Science (MECS) to assume the responsibility of the definition, creation, regulation, and follow-up of this educational level. Despite its optional nature, the successive governments of São Tomé and Príncipe have been showing an increasing interest in the enlargement of the number of children benefited by preschool education and in the improvement of the quality of the attendance provided to children. The “Chart of Education Policy: Policies and Development Strategies until 2022” presents a relevant analysis on the demographic, social, economic, and educational situation in São Tomé and Príncipe and suggests policies and development strategies for the field of education. São Tomé and Príncipe is a country with a very young population (children represent 55% of the population), going through a growing poverty situation (1994 is 40%; while 2010 is 60.2%). A situation of extreme poverty affects 15% of the population, of whom 44% live according to very low standards of comfort, and only 15% of them live in a more or less moderate level of comfort. The rate of literacy is of 45.9%, and the rate of global attendance of the educational system of 45% (Institute National of Statistics-São Tomé Príncipe, 2013).

The system of preschool education is poorly developed, with only 1/3 of the children of São Tomé and Príncipe enrolling in this cycle of studies (0-5 years old), representing the children aged from 3-5 years 54% of that rate (Chart of Education Policy: Policies and Development Strategies until 2022). Classrooms are populated by an average number of 68 children, and there is a scarcity of pedagogical materials, with an educator with the task of coordinating the institution, although the children were being taken care by auxiliary staff, who have a low professional recognition, both at the level of their social status, and at the level of their remuneration status, and manifesting difficulties of cooperation among the different entities, which creates obstacles to the making of strategic thinking leading to action.

In the meetings held with the different groups of local actors, we started by addressing educational, social, and organizational conceptions, aspects relating with children’s day to day, as well as conceptions relative to

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profiles, training and professional questions. The first meetings allowed us to get to know the existing perspectives, sensibilities and expectations relating to the enlargement of the network of preschool education and to the re-qualification of the services provided; to identify opportunities and constraints, and to detect some difficulties that must be overcome in a collaborative fashion, after a thorough local debate is carried out on what should be understood by education, children, and rights, inclusive society and articulation between educational policies and social policies.

From our reflection upon this first stage, we identified three axes to be considered in the conception of the legal framework, namely:

1. At the level of the network—the reorganization of the sub-levels that were created (0-3/3-5) and the enlargement of the services provision;
2. At the level of the conception—the clarification of the social-educational guidance, the articulation with the 1st Cycle of Basic Education and with the families;
3. At the organizational level—the promotion of quality, the implementation of new modalities of services, and the regulation, monitoring, and inspection of the system.

From that point onwards, the grounds for the definition of preschool education in São Tomé and Príncipe were locally identified and discussed, integrating the recognition of everybody’s rights, those of both children and their families, the implementation of a preschool education of high quality, based on integrated policies directed towards childhood (Sarmento, 2013; Vilarinho, 2013), in a developing country, which are capable of building bridges with the field of health, with the field of social assistance, and with the field of the law. Other ground that was defined was the relevance of the creation alternate modalities, which are able of taking into consideration the demographic and morphologic diversity of the country, either modalities that develop into communitarian centers, or into ambulatory education, or into kindergartens.

Conclusion

Summarily, we can state that, as a result of the work carried out in tight cooperation with the official entities and the various local agents, and after identification of the strengths and weaknesses of the Preschool Education System of São Tomé and Príncipe, in articulation with the analysis of the different literature sources on the reality of São Tomé and Príncipe and with our scientific knowledge in the field of childhood education, it was possible to make a proposal which defined the priorities, the goals, and the definitions of the political strategies.

Thus, our study on the reality of the country, and the whole process, previously lived and described, allowed us to little by little identify and construct, in a participatory fashion, the large lines of the definition of the Preschool Education Act and of the Statutes of Preschool Educations, namely, in what concerns their political, epistemological, pedagogical grounds, and their organizational tenets.

In the making of the already mentioned legal diplomas, we have paid attention to the following foundations:

1. The Democratic Republic of São Tomé and Prínipe acknowledges every child’s rights to education and to child well-being;
2. A good quality preschool education warrants the equality of educational opportunities for all children;
3. Preschool education is essential to the integral development of children;
4. Preschool education and the training of its professionals are shaped by international scientific knowledge;
5. Preschool education is the first stage of basic education;
6. Preschool education is developed in a diversity of educational contexts and of pedagogical models;
7. Preschool education is developed in articulation with families;
8. Preschool education is developed on the basis of integrated policies for childhood;
9. Preschool education mobilizes the participation of local entities and actors;
10. Preschool education takes place within the community and promotes local development.

Concluding, we reaffirm that we recognize the essential role of the State as warrant of the right of the children of São Tomé and Príncipe to a good quality preschool education, even though with the collaboration of non-profit actors of the civil society.

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