PRE-SERVICE TEACHERS’ MOTIVATION TOWARD THE ENVIRONMENT

Zeliha YAZICI1 Aziz ASLAN2 TaşkıN TAŞTEPE3

1 Akdeniz University, Faculty of Education, Preschool Education Department
2 Akdeniz University, Faculty of Education, Primary Education Department
3 Uşak University, Uluğbey High School, Child Development Department

Abstract: In this study, it is aimed to investigate the aptitude of pre-service preschool teachers’ motivation toward the environment that has great importance on children’s basic learning and every developmental field. Study’s target population include faculty of education preschool teaching undergraduate students of Akdeniz University in 2011-2012 academic year. Sampling consists of totally 219 pre-service preschool teachers from Akdeniz University. As a measuring instrument, personal information form, which is prepared by the researchers and Motivation Toward the Environment Scale. Statistical methods, which are suitable for the features and structures of variables as parametric and non-parametric, are used for statistical analysis of the research. As a result of the research, gender and residential factors are not effective on pre-service teachers’ motivation towards the environment, but the factors of age and educational level were found to be effective.

Keywords: Environmental Education, Motivation Towards The Environment

INTRODUCTION

Environment, which is described as the habitat of a living being, is a physical, biological, economical, social and cultural setting, where all living beings, including human, interact to continue their existence in a healthy way. Living beings are in communication and interaction with these settings. Life of a living being founded on ecological balances is affected negatively by some disintegration created in the environment. Especially, human being’s seeing nature as an inexhaustible source and using it randomly are causing environmental problems that are really hard to compensate (Gökdağ, 1994). Day by day, air, water and soil have been polluted with an increasing rate. These pollutions have been breaking natural balance of the ecosystem that is necessary for the life of living beings and putting the continuity of their existence into danger. Thus, these disintegrations, which are blocking the continuity of living beings’ existence, are becoming a growing environmental problem (Shu-Ying Lin, 2000). The increasing insensitivity of human has been threatening both the quality of human and all the other living beings’ life (Aslan et al., 2011). With the pollution of air, water and soil, which are the source of life, many toxic chemicals are becoming a direct danger to living beings (Aslan et al., 2006, Aslan et al., 2011). According to Boon (2010), decreas-
ing amount of natural sources and harms given to
the flora have been becoming a global threat as
days pass. Therefore, it is necessary to develop
environmental sensitivity before environmental
problems occur and get environmental problems
under control.

The most effective way of increasing sensitivity
towards environment is to raise individuals, who
can develop the skill and behaviour of under-
standing the relationship between human, culture and
natural environment, in line with individuals’
interests, motivations and needs (Grodzinska-
Jurczak et al., 2006), create awareness against
environmental problems, and have the information,
attitude, motivation and responsibility of
working individually or as a group to solve these
problems. This raising process can become true
with a conscious environment education (Braus
& Wood, 1993, Aslan & Doğru, 2012). In recent
years, the individuals’ necessity of being informed
with a lifelong affected education about environ-
ment and environmental problems has begun to be
accepted (Atasoy & Ertürk, 2008, Aslan & Doğru,
2012), and with this way, it has been aimed to
present opportunities of acquiring information,
attitude, value, loyalty, and skills of protecting

Today, these issues are taken seriously by only some
of the non-governmental organizations (NGOs),
and a set of works are being held. However, the
solution of environmental problems is under the
responsibility of all individuals, and internalization
of self-awareness, especially about this topic, is
necessary from the very early ages. Ramsey et
al. (1992) and Wilson & Smith (1996) support
the necessity of forming sensitivity towards
environment by emphasizing the necessity of
environmental education especially from the very
eyear ages and offering to integrate environmental
education and science education from early ages.

Since in the early period, they are in need of
discovering environment they live in first hand,
individual’s positive experiences of their and na-
ture will establish the foundation of their type of
evaluation of the world. In this context, a teacher
educated in terms of environment (UNESCO-
UNEP, 1990) has a very important place in
transforming values, attitudes and actions that are
being formed towards environment to sustainable
social and environmental relationships. Therefore,
it is the most important point of teachers being
a positive model to children with their attitudes
and behaviour towards environment.

Forming a society respectful to environmental
value is based on true, consistent and real in-
formation that individuals will gain about this
issue. For the constitution of this structure, it is
especially necessary for candidate teachers to
be raised with the insight of having respect to
environmental values and showing sensitivity.
Thus, teachers educated with this insight should
be able to raise individuals with a point of view
that reaches from information to awareness and
sensitivity to behaviour (Kavruk 2002, Tan 2009,
Boon 2010, and McDonald & Dominguez 2010).
It is thought that forming environmental attitudes
of children in the pre-school period is closely
related to their teachers’ environmental attitudes.
In this context, this research has been carried out
with the aim of deciding motivation levels of.
PURPOSE OF THE STUDY

The main purpose of this study is to examine the effect of some socio-demographical and educational life characteristics of pre-school teacher candidates’ motivation environment. In the context of this aim, it is researched whether there are any differences among scores that are taken from the Motivation towards the Environment Scale as to sex, age, location and level of grades.

For this purpose, answers to the following questions were sought:

- What is the level of pre-service preschool teachers’ motivation towards the environment?
- Do the pre-service preschool teachers’ motivation towards the environment significantly vary depending on the sex, ages, locations and level of grades?

METHOD OF RESEARCH

This research is a descriptive study in which a survey model is used to decide pre-school teacher candidates’ motivation towards environment. The participants of the study are the students of Akdeniz University Faculty of Education, Department of Pre-school Teacher Training in 2012 – 2013 academic years. The sample group consisted of 219 voluntary pre-service preschool teacher among 550 pre-school teacher candidates, who enrolled in daytime or evening program. The results of this survey can be generalized just for the pre-service preschool teachers who included in the sampling process because the selection of the sampling was based on the convenience sampling which is sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher.

DATA COLLECTION METHOD AND TOOLS

As data collection tools, Personal Information Form that was prepared by the researchers and Motivation towards the Environment Scale that was developed by Pelletier et al. (1998) and adapted into Turkish by Sakarya (2010) are being used. The scale, which is developed with the aim of deciding candidate teachers’ motivation types towards environment, is evaluated on 7 point Likert. The original of the scale, which evaluates the environmental motivation levels of individuals and constitutes 24 items, consists of 6 sub-scales under 3 dimensions as Intrinsic Motivation (Internal Regulation), Extrinsic Motivation (Introjected Regulation, Identified Regulation, External Regulation and Integrated Regulation) and Amotivation. The scale’s Cronbach’s alpha reliability coefficient for internal consistency is .87 (Sakarya, 2010).

ASSESSMENT OF DATA

In the analysis of the research data, parametric and non-parametric statistical methods are being used in a way that is suitable with the structure of variables and features of data. Points taken from the Motivation towards the Environment Scale are in the form of continuous variable and they are considered as the dependent variable of the research. It is accepted that the distribution of dependent variable in the universe is normal. On the other hand, demographic features of candidate teachers constitute independent variable of the research. Means of points that candidate teachers gained from the Motivation towards the Envi-
environment Scale in respect of their demographical features are compared. In the comparison, when there are 2 categories of independent variable the “t” test; when there are more than 2 categories the “F” test are used. When a significant difference is found in the “F” test, Scheffe Test of Post Hoc Tests is used to find the source of difference (Büyüköztürk, 2006: 39).

FINDINGS AND DISCUSSION

When the distribution of candidate teachers attending the research is analyzed in terms of gender, the research consists of 71.2% females (n=156) and 28.8% males (n=63). When the distribution of candidate teachers is analyzed in terms of education type they are having, out of 219 candidate teachers, 51.1% (n=112) of them are having morning education and 48.9% (n=107) of them are having evening education. According to grades, 26% of candidates (n=57) continue their education in the second, 40.6% of them in the third and 33.3% of them in the fourth grades.

When the distribution is analyzed in terms of the age of candidates, it is seen that 44.7% (n=98) of them are in the range of 18-20 and 55.3% (n=121) of them are in the range of 21-23 year-old. When candidates’ distribution is analyzed in terms of accommodation they lived for a long time before they came to the university, it is seen that 54.3% (n=119) of them have lived in a county or a town and 45.72% (n=100) of them have lived in a city.

When the distribution of candidates is analyzed in terms of type of high school that candidates graduated from, it is decided that 54.8% of them graduated from public high school, 25.6% of them graduated from Anatolian teacher training high school and 19.6% of them graduated from vocational high school.

Table 1 Pre-service preschool teachers’ motivation mean scores about Motivation towards the Environment Scale

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic Motivation</td>
<td>219</td>
<td>4,4212</td>
<td>.81944</td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>219</td>
<td>5,3185</td>
<td>1,08492</td>
</tr>
<tr>
<td>Amotivation</td>
<td>219</td>
<td>2,4726</td>
<td>1,35450</td>
</tr>
</tbody>
</table>

The pre-service preschool teachers’ average score on the Extrinsic Motivation scale of the Motivation towards the Environment (MTE) have 4.4212. The average score on the Intrinsic Motivation scale of the MTE have 5,3185, and Amotivation scale of the MTE have 2,4726.

It is understood that in terms of gender and accommodation, there is no statistically significant difference between the points of pre-server preschool teachers attending the research about Amotivation (p>0.05), Intrinsic Motivation (p>0.05) and Extrinsic Motivation (p>0.05) dimensions of Motivation towards the Environment Scale (Table 2).
Table 2: Pre-school Teacher Candidates’ Environment Motivation Status in terms of Demographical Features

<table>
<thead>
<tr>
<th>Points of Motivation towards the Environment</th>
<th>Study Groups</th>
<th>N</th>
<th>Mean</th>
<th>Sd</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amotivation</td>
<td>Female</td>
<td>156</td>
<td>2.3215</td>
<td>1.34548</td>
<td>(t= .381)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>63</td>
<td>2.6992</td>
<td>1.37924</td>
<td></td>
</tr>
<tr>
<td>Extrinsic Motivation</td>
<td>Female</td>
<td>156</td>
<td>4.4135</td>
<td>.81788</td>
<td>(t= .687)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>63</td>
<td>4.4405</td>
<td>.82957</td>
<td></td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>Female</td>
<td>156</td>
<td>5.2997</td>
<td>1.08450</td>
<td>(t= .826)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>63</td>
<td>5.3651</td>
<td>1.09326</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amotivation</td>
<td>18-20</td>
<td>98</td>
<td>1.9974</td>
<td>1.16737</td>
<td>(t= 4.914^{**})</td>
</tr>
<tr>
<td></td>
<td>21-23</td>
<td>121</td>
<td>2.8574</td>
<td>1.37758</td>
<td></td>
</tr>
<tr>
<td>Extrinsic Motivation</td>
<td>18-20</td>
<td>98</td>
<td>5.6250</td>
<td>.87803</td>
<td>(t= -2.480^{*})</td>
</tr>
<tr>
<td></td>
<td>21-23</td>
<td>121</td>
<td>5.0702</td>
<td>1.17315</td>
<td></td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>18-20</td>
<td>98</td>
<td>4.5721</td>
<td>.76190</td>
<td>(t= 3.882^{**})</td>
</tr>
<tr>
<td></td>
<td>21-23</td>
<td>121</td>
<td>4.2991</td>
<td>.84676</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amotivation</td>
<td>Town</td>
<td>119</td>
<td>2.3529</td>
<td>1.37410</td>
<td>(t= -1.430)</td>
</tr>
<tr>
<td></td>
<td>City</td>
<td>100</td>
<td>2.6150</td>
<td>1.32355</td>
<td></td>
</tr>
<tr>
<td>Extrinsic Motivation</td>
<td>Town</td>
<td>119</td>
<td>4.4538</td>
<td>.85101</td>
<td>(t= .640)</td>
</tr>
<tr>
<td></td>
<td>City</td>
<td>100</td>
<td>4.3825</td>
<td>.78271</td>
<td></td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>Town</td>
<td>119</td>
<td>5.2836</td>
<td>1.14561</td>
<td>(t= .518)</td>
</tr>
<tr>
<td></td>
<td>City</td>
<td>100</td>
<td>5.3600</td>
<td>1.01212</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grades</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amotivation</td>
<td>2. Grade</td>
<td>57</td>
<td>2.1140</td>
<td>1.17362</td>
<td>(F= 8.279^{**})</td>
</tr>
<tr>
<td></td>
<td>3. Grade</td>
<td>89</td>
<td>2.2921</td>
<td>1.32032</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Grade</td>
<td>73</td>
<td>2.9726</td>
<td>1.39913</td>
<td></td>
</tr>
<tr>
<td>Extrinsic Motivation</td>
<td>2. Grade</td>
<td>57</td>
<td>4.5757</td>
<td>.78363</td>
<td>(F= 1.730)</td>
</tr>
<tr>
<td></td>
<td>3. Grade</td>
<td>89</td>
<td>4.3181</td>
<td>.89767</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Grade</td>
<td>73</td>
<td>4.4264</td>
<td>.73386</td>
<td></td>
</tr>
<tr>
<td>Intrinsic Motivation</td>
<td>2. Grade</td>
<td>57</td>
<td>5.5746</td>
<td>.92457</td>
<td>(F= 2.408^{*})</td>
</tr>
<tr>
<td></td>
<td>3. Grade</td>
<td>89</td>
<td>5.2809</td>
<td>1.03684</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Grade</td>
<td>73</td>
<td>5.1644</td>
<td>1.22773</td>
<td></td>
</tr>
</tbody>
</table>

* * p<.05
The analysis of the findings reveals that there is a statistically significant difference among the points of Intrinsic Motivation \([t_{219}=3.882; \ p<.05]\), Extrinsic Motivation \([t_{219}=2.480; \ p<.05]\) and Amotivation \([t_{219}=4.914; \ p<.05]\) dimensions of Motivation towards the Environment Scale in terms of age of candidate teachers attending the research. When candidate teachers’ environment motivation status results are analyzed in terms of age factor, it is decided that Extrinsic Motivation is high between the ages 18-20, and between the ages 21-23, Intrinsic Motivation’s and Amotivation’s points are very high (Table 1).

While it cannot be seen any statistically significant difference between the points of Intrinsic Motivation \([F=2.408; \ p>.05]\) and Extrinsic Motivation \([F=1.730; \ p>.05]\) dimensions of Motivation towards the Environment Scale in terms of grades, it is that the difference between the points of Amotivation \([F=8.279; \ p<.05]\) dimension is statistically significant. At the end of Scheffe Test it is seen that this difference is between the 4th grade and the others. These findings show that Amotivation’s points of 4th grade candidate teachers are higher than 2nd and 3rd grade candidate teachers. Thus, motivation level of 4th grade candidate teachers towards environment is lower than 2nd and 3rd graders.

**DISCUSSION**

Although no statistically significant difference can be seen between the motivation levels of candidate teachers towards environment in terms of gender, it is understood that male candidates \((X_{\text{male}}=2.6992)\) have higher points from the Amotivation dimension towards environment than females \((X_{\text{female}}=2.3215)\). Erol (2005) has stated that gender is effective on attitudes towards environment. Kaya et al. (2009) have identified that female students are more sensitive towards environment than males, they are more courageous in terms of warning people who give harm to environment and they share more about environment among themselves. In some similar researches that were done by Cavaş et al. (2009), Zelezny et al. (2000) and Tikka et al. (2000), it is suggested that females rather than males show more positive attitudes towards environment, they are aware of environmental threats and display environmental friendly behaviours. In addition, they state that female students are much more sensitive than male students about such issues as voluntary attendance to the activities about environment and being selective about products that give harm to the environment. In many other researches, it is determined that female students tend to show more positive attitudes towards environment compared to males (Iozzi 1989, Fortmann & Kusel 1990, Şama 2003, Özmen et al. 2005, Ek et al. 2009).

Although those results are in contrast with the findings of research, all data show that females tend to display more sensitive behaviour towards environment compared to males.

It is seen that age factor creates a statistically significant difference in the Environmental Motivation levels of candidate teachers attending the research in all three dimensions of Intrinsic Motivation, Extrinsic Motivation and Amotivation (see Table 1). In the light of this finding, it can be said that Extrinsic Motivation decreases, while Intrinsic Motivation towards environment increases as the age grows but at the same time, Amotivation increases as the age grows, as well. Ek et al. (2009) found a statistically significant
difference between age groups and environmental attitudes. In their research, they stated that positive attitudes of students, who are 21 year-old and over, towards environment are higher in proportion to students who are 20 year-old and under. In a similar research, Özdemir et al. (2004) found that environmental sensitivity points of attendants who are 21 year-old and under are higher in proportion to attendants who are 22 year-old and over. However, Çınar et al. (2010) suggest that age is not an effective factor on attitudes towards environment. Although there are different views overlapping or conflicting with each other about effect of age on environmental sensitivity, in general, it can be said for every group that environmental attitude studies are held on environmental attitudes increase in a positive way as the age grows.

It is possible to see the main effects of culture in the behaviours of individual, who is a part of social arena. Since individuals bring their cultures expectations, habits and values with them, they stay under the influence of culture being aware of it or not (Kağıtçibaşı, 2000). Since differences in various ecological, social, philosophical and educational systems are effective on thinking, learning and behaviour styles (Nisbett, 2006), it may be misleading to think attitudes and behaviours of individuals independently from the effect of culture. Researches in the area of social psychology show that individuals’ attitudes and behaviours are affected by the culture they are in and existence of other individuals, who are main element of this culture (Taylor et al., 2008). This power, which is named as social effect, causes individuals to adapt the group or society they live in, show reactions and display similar behaviours (Taylor et al., 2008). Since most of the similar behaviours of individuals, who live in the same culture, are ‘shared learning products’, which they start to gain at the beginning of their lives and continue through their lives, they may show behaviours of adaptation to the environment even if they do not share the same ideas. Especially individuals in communitarian cultures have a strong tendency towards social aims in proportion to individualistic cultures. In communitarian cultures, as it is important to maintain adaptation to the group, social norms -in other words social effect- are much ahead. According to developmental psychology, for individuals in the last period of their puberty, social acceptance and popularity are really important. They tend to transform their behaviours in a way that suits behaviours or thoughts ruled by social norms or standards they live in by avoiding behaviours of social rejection (Taylor et al., 2008) with the effort of putting across her/his entrance to adolescence (Temel & Aksoy, 2001). According to Deci & Ryan (2000), while Extrinsic Motivation comes from conditioning that is triggered by other people’s control over individuals’ behaviours, Intrinsic Motivation comes from conditioning that is triggered by individuals’ own behaviours. When it is looked through this frame, individuals’ interaction with outer world and experience that they will gain with these interactions may reflect their sensitivity towards environment. Therefore, it may be thought that those individuals’ extrinsic motivation towards environment being low in accordance with intrinsic motivation is a sign of social effect. Environmental awareness is a dynamic construct, which has its shape with the effects that come from their environment through their lives,
can develop or sometimes regress. Attitude is also another learning product. To develop a positive attitude towards environment in individuals or make them internalize environmental awareness, it is necessary to develop a social point of view, which will create learning settings about ecological, economical and social/common outcomes of protecting environment in a long term. From this point of view, it is extremely important for parents, educational institutions, media and NGOs¹ to act collaboratively in developing environmental sensitivity and make the society aware.

Fourth grade pre-school teacher candidates’ motivation level towards environment is very low in comparison with pre-school teacher candidates who continue 2nd and 3rd grades. Sakarya (2010) found that Amotivation dimension levels of 4th grade pre-school teacher candidates are higher than other grades. Erol (2005) stated that 2nd grade general teachers’ interests in environment and environmental problems are low, and also they have some notional mistakes about ecology and environment. Results of those researches are in the way of supporting the findings obtained from this research. A forementioned scientific researches show that motivation towards environment gradually decreases by age and/or in the education process. To form environmentally responsible behaviours by developing environmental sensitivity in people is possible with environmental education that will be given to individuals (Ek et al., 2009). Solving of problem, it might be see as an important and serious starting point to begin with candidate teachers, who will serve in the early childhood period to make children gain social awareness of environmental sensitivity. Increasing sensitivity of teachers, who will especially teach children in their early ages, an applied environmental education is necessary, which will include the information, attitude, motivation and responsibility, develop skill and behaviour of understanding the relationship between human, culture and natural environment in line with their interests, motivations and needs, and form awareness against environmental problems. Environmental problems are rapidly increasing because of today’s people’s massive consumption and insensitivity. The basic way of preventing this problem is to provide children the feeling to see themselves as a part of the environment, not over it.

CONCLUSION

In sum, the education of pre-school period children includes environment education together with child education. It is known that thinking child education and environment education together has potential benefits for both children and environment. One of the key elements of quality and successful education is teacher, and forming environmental awareness on the basis of knowledge, skills and values about environment, which candidates have, has an important place in raising environmentally sensitive individuals. Besides professional and field knowledge that individuals, who will serve as teachers, have, it is especially necessary for researches to be done intensively to form applied environmental awareness.

Motivation plays a crucial role in a preschool teacher’s pedagogy. As a pre-service preschool teacher it is important to think about the ways children can be intrinsically motivated in the classroom for the environment. Teachers can empower and move their students through providing
a supportive, quality learning environment, where learning is achievable and supported

by both teachers and students. Intrinsic motivation involves teachers providing choice, enabling students to set goals and investigate their interests and curiosities. Teachers are role models for students; a teacher who exhibits their own passion and enthusiasm for learning will transfer these attributes to the classroom, developing intrinsic students. Motivating students into learning for the desire of learning can open up a world of possibilities. Intrinsic motivation is a fundamental element in childrens’ environmental awareness, with teachers having the influence to implement learning experiences that allow childrens to see knowledge as worthwhile and take ownership over their learning.

Other possibilities for further research exist as well which are related to the limitations

of this study. This study was carried out with pre-service teachers from a single teacher training institution. It would be interesting to ask pre-service teachers from multiple teacher training institutions about their experience. This may result in even more diverse responses as these teachers’ training will differ. This will give a further indication of the relevant aspects of teacher training for pre-service preschool teachers’ motivation environment motivation, professional commitment, and their self-efficacy beliefs.

REFERENCES


and the affective domain. Journal of Environmental Education, 20:3-9


**NÍSBETT, R. E., (2006).** Düşüncenin coğrafyası. Varlık Yayınları, İstanbul


Öğretmen adaylarının çevreye yönelik motivasyonuzları, çevreye karşı motivasyon düzeylerinin belirlenmesi amacıyla bu çalışma yürütülmüştür. 


Anahtar Kelimeler: Çevre Eğitimi, Çevreye Karşı Motivasyon