A Relational Study on Environmental Attitude and Environmental Competencies of Prospective Teachers

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ABSTRACT

The aim of the present investigation was intended to find out correlation between the environmental attitude and environmental competencies of prospective teachers. The study was conducted on the sample of six hundred prospective teachers from different government and private B.Ed. colleges of Chittoor and Guntur districts of Andhra Pradesh. The researcher has used environmental attitude scale and environmental competencies scales to assess the correlation between the environmental attitude and environmental competencies of prospective teachers. The results of the study showed that there is a significant positive correlation between environmental attitude and environmental competencies of prospective teachers with regard to whole sample. There is a significant positive correlation between environmental attitude and environmental competencies of male and female prospective teachers. There is no significant positive correlation between environmental attitude and environmental competencies of rural and urban prospective teachers. There is a significant positive correlation between environmental attitude and environmental competencies of government and private prospective teachers.

Introduction

The environment is the basis for all living things. All living organisms are dependent on their surroundings. Except for a few people in our technological world, no one cares about the environment. Human beings have the major responsibility for resolving environmental issues. There is a pressing need for environmental protection. Environmental education has a high priority for preventing environmental problems, and it must be properly implemented from primary to higher education to preserve the world from environmental calamity. Educational institutions are the major agencies for bringing changes in attitudes and behaviour related to environmental concerns. If children acquire basic knowledge, it will be easier to preserve the environment for future generations. The most important goal for the entire globe is sustainable development. Environmental education is essential for the fulfillment of the dream of sustainable development. All educational institutions should focus on this issue and provide environmental education to the learners in a proper way. In this concern the teachers have a crucial role to play in protecting the environment. They play a vital role in society and they can lead the younger generation in a positive way towards a balanced environment. Teachers can only develop positive environmental attitudes and competencies in learners. Teachers need to be aware of environmental concerns and develop problem-solving attitudes. The teaching and learning process of environmental education in schools depends on the trained teacher. Prospective teachers need to develop positive attitude and competencies towards environmental issues during their training. Prospective teachers are key elements in any system of teacher education and they play a critical role in effective environmental education. Prospective teachers should educate properly on environmental studies. They should improve their environmental knowledge through practically by taking projects and field trips. Thus they should have sufficient expertise in identifying the key principles of environmental education. They must apply their knowledge to build a strong basis for solving environmental problems. If the prospective teachers are properly trained in environmental education, they will be able to transfer environmental attitude and competencies to the learners in the best possible way, so that the desired learning environmental education objectives can be achieved.

Review of Related Literature

Asha Latha (2014) concluded that gender, locality and type of school and income of the parent of senior secondary school students make no significant difference in their environmental attitude. Mukesh Kumar et.al (2015) showed that boys have a greater attitude than girls towards environment. According to Karaçar (2016) men who engage in recreational activities have a more positive environmental attitude than women. Olaya Alvarez-Garcia., et.al. (2017) revealed that there were no significant changes in the results connected to the greening level of the training programmes. Although pre-service teachers lack environmental knowledge, they show very favourable attitudes regarding environmental concepts and possessed moderate pro-environmental behaviour. Pakala Naga Suresh Kumar and T.Swarupa Rani (2018) revealed that teacher trainees differ significantly in their environmental competencies due to variation in gender, qualification and parental education. Pakala Naga Suresh Kumar and T.Swarupa Rani (2019) found that teacher trainees differ significantly in environmental attitude due to variation in gender, locality, management and parental education.
Statement of the Problem

The present investigation entitled as follows.
“A Relational Study on Environmental Attitude and Environmental Competencies of Prospective teachers”.

Operational Definitions of Key Terms

Study
It refers a detailed investigation and analysis of a subject or situation.

Environment
The term ‘environment’ refers to the sum total of conditions that surrounds us at a given point of time and space.

Attitude
It referred as ‘the degree of positive or negative affect associated with some psychological object.’

Environmental attitudes
Environmental attitudes are defined as "a person's collection of ideas, affects, and behavioural intentions relating to environmental activities or issues with some degree of favour or disfavor".

Prospective Teachers
In the present study, students who are studying B.Ed. course in Colleges of Education are considered as prospective teachers.

Environmental competence
Environmental competence is defined as a "person's ability to solve any environmental problem based on knowledge, experience, values, and habits”.

Objectives of the Study

- To find out the correlation between the environmental attitude and environmental competencies of Prospective teachers in relation to the overall sample.
- To test whether the variable gender, locality and management type of Prospective teachers make any significant difference in the relationship between the environmental attitudes and environmental competencies.

Hypotheses of the Study

- There is no significant correlation between environmental attitude and environmental competencies of Prospective teachers with regard to whole sample.
- There is no significant difference in the relationship between environmental attitude and environmental competencies Prospective teachers in relation to (i) gender (ii) locality (iii) management.

Method of the study

The investigator has used normative survey method to examine the correlation between environmental attitude and environmental competencies of Prospective teachers.

Sample of the study

The sample of the study was 600 Prospective teachers studying in both private and government. B.Ed. colleges from Guntur and Chittoor districts of Andhra Pradesh. The sample was selected by using stratified random sampling technique.

Tools used for the present Study

The investigator has collected the secondary data by Self-constructed and validated five-point rating scales. Those are as follow (1) EAS (Environmental Attitude Scale), it has 52 items and the reliability of the scale was found 0.86 (2) ECS (Environmental Competencies Scale), it has 56 items and the reliability of the ECS was found 0.92.

Statistical Techniques used

For the analysis of the data Pearson’s Product Moment Coefficient of Correlation (r) and Critical ratio were calculated.

Analysis and interpretation of Data

Table -1: Correlation between Environmental Attitude (EA) and Environmental Competencies (EC) of Prospective Teachers with regard to Whole Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sample Size (N)</th>
<th>Df = N-2</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV</td>
<td>300</td>
<td>df = (300-2) = 298</td>
<td>0.27**</td>
</tr>
<tr>
<td>EC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at 0.01 level

From the table-1, reveals that there is significant a positive correlation between environmental attitude and environmental competencies of prospective teachers with regard to whole sample. Hence the formulated null hypothesis “there is no significant correlation between environmental attitude and environmental competencies of prospective teachers with regard to the whole sample” was rejected.

Table-2: Comparison of Correlation between Environmental Attitude (ECA) and Environmental Competencies (EC) of Prospective Teachers with regard to Gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>Correlation Coefficient</th>
<th>Fisher's Z</th>
<th>Dz</th>
<th>( \sigma_{d , z} )</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>EA</td>
<td>300</td>
<td>0.77</td>
<td>1.02</td>
<td>0.28</td>
<td>3.50**</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>300</td>
<td></td>
<td></td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>EA</td>
<td>300</td>
<td>0.63</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at 0.01 level
From the table -2, it is observed that calculated critical ratio (3.50) value is significant at 0.01 level. Therefore, the null hypothesis is rejected. Hence, it can be said that there is a significant difference in the relationship between environmental attitude and environmental competencies of prospective teachers with regard to the variable gender.

Table -3: Comparison of Correlation between Environmental Attitude (EA) and Environmental Competencies (EC) of Prospective Teachers with regard to Locality

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>Correlation Coefficient</th>
<th>Fisher’s Z</th>
<th>Dz</th>
<th>$\sigma_{d z}$</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>EA</td>
<td>300</td>
<td>0.34</td>
<td>0.35</td>
<td>0.07</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>EA</td>
<td>300</td>
<td>0.40</td>
<td>0.42</td>
<td>0.07</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

# Not significant at 0.05 level

From the table -3, it is found that the calculated critical ratio (0.88) value is not significant at 0.05 level. Therefore, the null hypothesis is retained. Hence, it can be said that there is no significant difference in the relationship between environmental attitude and environmental competencies of prospective teachers with regard to the variable locality.

Table -4: Comparison of Correlation between Environmental Attitude (EA) and Environmental Competencies (EC) of Prospective Teachers with regard to Management

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>Correlation Coefficient</th>
<th>Fisher’s Z</th>
<th>Dz</th>
<th>$\sigma_{d z}$</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>EA</td>
<td>300</td>
<td>0.52</td>
<td>0.58</td>
<td>0.23</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>EA</td>
<td>300</td>
<td>0.34</td>
<td>0.35</td>
<td>0.23</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>EC</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at 0.01 level

From the table-4, it is reveals that the calculated critical ratio (2.88) value is significant at 0.01 level. Therefore, the null hypothesis is rejected. Hence, it can be said that there is no significant difference in the relationship between environmental attitude and environmental competencies of prospective teachers with regard to the variable type of management.

**Major Findings**

- It was found that there is a significant positive correlation existed between environmental attitude and environmental competencies of prospective teachers with regard to whole sample. It indicates that the prospective teachers with better environmental attitude tend to possess better environmental competencies.

- It was observed that there is a significant difference in the relationship between environmental attitude and environmental competencies of prospective teachers with regard to the gender and type of management.

- It was identified that there is no significant difference in the relationship between environmental attitude and environmental competencies of prospective teachers with regard to locality.

**Conclusions**

The findings of the study revealed that there was a significant positive correlation between environmental attitude and environmental competencies of prospective teachers. It was also noticed that there was a significant positive correlation between environmental attitude and environmental competencies of prospective teachers with regard to gender, and management. It indicates that the prospective teachers with better environmental attitude tend to possess better environmental competencies. So, it is very essential to improve the Environmental Education Programme at teacher education colleges. Developing ecological awareness among Prospective teachers must be focused. The curriculum must be designed as such that, environmental education imparted through formal and informal methods. Prospective teachers should be given both practical and theoretical knowledge of environmental education. Focus must be on the problem solving attitude and concept clearance. Rather than burdening them with too much theoretical aspects, they must be engaged in the practical aspects. Practical activities can develop their creativity and the same can be applied among the children. Hence the teacher training colleges should take appropriate measures on environmental issues related projects, seminars, workshops, and inculcate positive environmental attitude in Prospective teachers through curricular and co-curricular activities to protect the environment.
References