A STUDY OF STUDENTS' CONCEPTUAL UNDERSTANDING OF THE CONTENT OF EVS AT THE PRIMARY STAGE

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A study of students' conceptual understanding of the content of EVS has been carried out in ten primary schools in Ajmer district of Rajasthan. Research tools were administered on the students of three English medium and seven Hindi medium schools. Classroom transactions of the content of EVS taught by the teachers at primary stage were observed. Besides, teachers were interviewed to seek specific information in relation to their academic and professional qualifications as well as classroom transaction and medium of instruction. It was found from the analysis of the responses that the performance of students of English medium schools was better than that of students of Hindi medium schools. Reasons for such performance have been correlated with the lack of infrastructure in government Hindi medium schools and appropriate transactional strategies of the content of EVS.

Key words: *Conceptual understanding, primary stage and EVS*

Introduction

The objectives at primary stage of education are to nurture the curiosity of the child about the world and to have the child engage in exploratory and hands-on activities. Science and social science should be integrated as 'environmental studies' with health as an important component and its teaching should be recast so that it enables children to examine and analyse everyday experiences. Do students face problems in understanding the concepts of EVS due to the medium? Keeping the above in view, investigations into the conceptual understanding of students about the content of EVS at the primary stage have been carried out in ten schools of Ajmer district of Rajasthan.

Methods and Procedure

The research study was restricted to only ten schools (three English and seven Hindi medium) of Ajmer district situated both in rural and urban areas (Yadav and Sharma, 2011). Research tools were developed in workshop mode by a team of experts for assessment of conceptual understanding of students about the content of EVS. The tools were passed through a process of refinement and validation. In order to optimise the reliability and validity of the test, the test was first given to a group of 30 students of the primary stage. Tools were finally administered to the students of Classes III–V at three English medium schools and seven Hindi medium schools. All the responses given by the students were analysed and classified into three categories, namely, Acceptable Response (AR), Unacceptable Response (UR) and No Response (NR) for the analysis purpose.

Sample: The present study was conducted to only ten schools with 60 teachers and 625 students studying EVS in Classes III–V of Ajmer district situated both in rural and urban areas.

Analysis of the Responses

In Hindi medium schools, 83.3 per cent teachers are postgraduate, 14.3 per cent graduate and 2.4 per cent teachers are with the qualification of 10+2 whereas in case of English medium schools 38.9 per cent teachers are postgraduate, 44.4 per cent are graduates and 16.7 per cent are having 10+2 qualification. It was found that Hindi medium school teachers are more qualified than English medium school teachers. The professional qualifications of the teachers of Hindi and English medium indicate that the percentage of untrained teachers in Hindi medium schools is only 4.8 per cent whereas in English medium it is 11.1 per cent. All the responses given by the students were classified into three categories—Acceptable Response (AR), Unacceptable Response (UR) and No Response (NR) for the analysis purpose. Students' responses on the basis of the medium of instruction were obtained by administering assessment tools for studying the students' conceptual understanding about the concepts of EVS in Classes III–V of Hindi and English medium schools. Graphical representation of AR, UR and NR is shown in Fig. 1. Percentage of responses is given on Y-axis and number of items is given on X-axis. Examination of responses shows that out of 10 items pertaining to conceptual understanding of students studying in Classes III- V, the performance of students of English medium schools is better as compared to the performance of the students of Hindi medium schools.

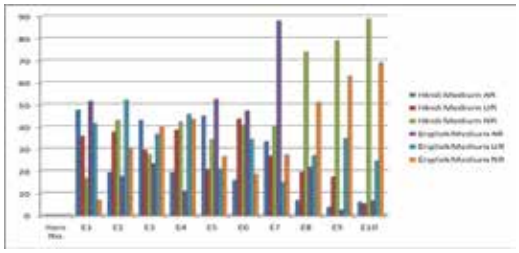

Fig. 1. Students' responses on the basis of medium of Instruction: EVS

Graphical representations of school-wise responses of students in EVS are shown in Figures 2–11. Percentage of responses is given on Y-axis and number of item is given on X-axis. In order to analyse the response we assumed that if students' response was equal or greater than 40 per cent, their conceptual understanding was considered as up to the mark. It is evident from Fig. 2 that the performance of the students of school No. 1 is satisfactory in EVS. Analysis of the responses of students of school No. 10 in EVS indicates that the performance of the students is sound whereas performance of students of schools Nos. 8 and 9 is better. School Nos. 8 and 9 are located in urban area whereas school No.10 is situated in rural area. School No. 8 is a government school and the remaining two English medium schools are private. Out of three English medium schools, conceptual understanding of the students about the content of EVS is not up to the mark in school No. 10 where only one item was responded correctly by 43.8 per cent students.

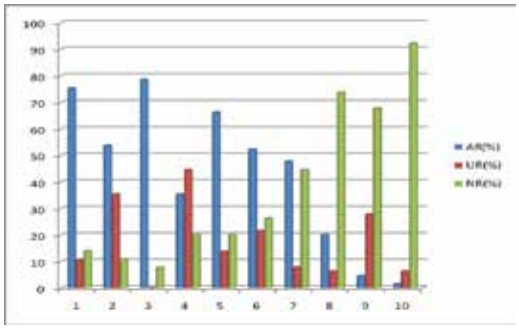

Fig. 2. School-wise students' responses for conceptual understanding of EVS (School 1)

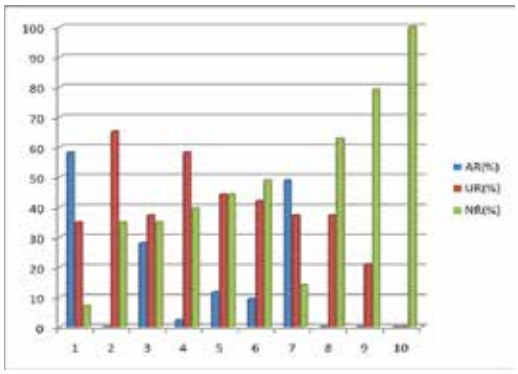

Fig. 3. School-wise students' responses for conceptual understanding of EVS (School 2)

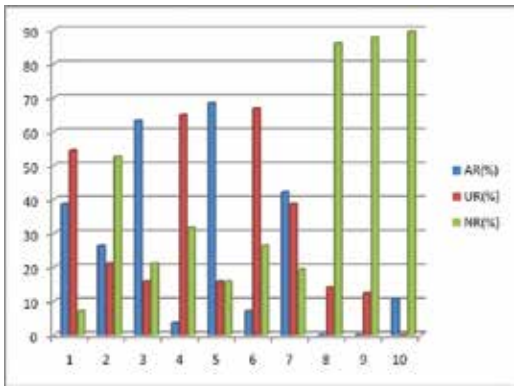

Fig. 4. School-wise students' responses for conceptual understanding of EVS: (School 3)

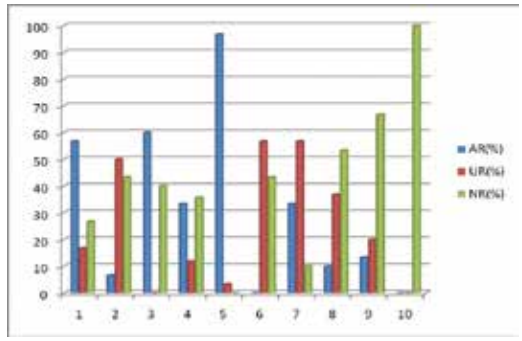

Fig. 5. School-wise students' responses for conceptual understanding of EVS (School 4)

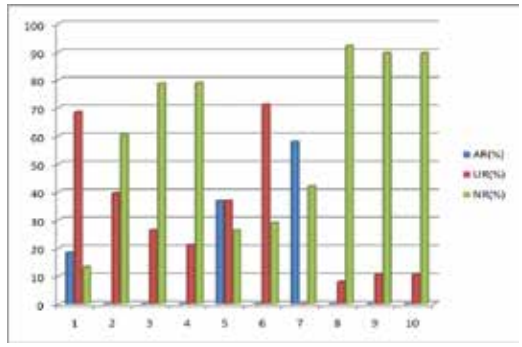

Fig. 6. School-wise students' responses for conceptual understanding of EVS (School 5

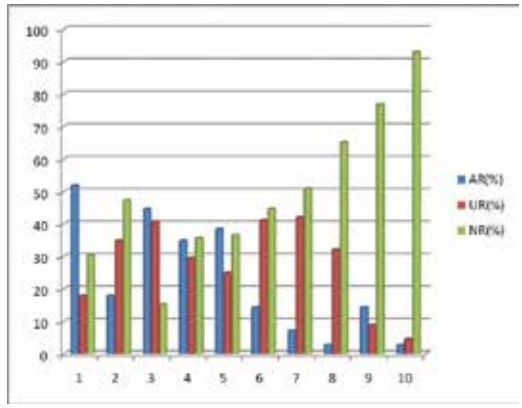

Fig. 7. School-wise students' responses for conceptual understanding of EVS (School 6)

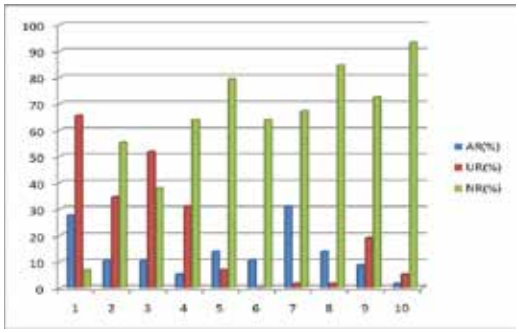

Fig. 8. School-wise students' responses for conceptual understanding of EVS (School 7)

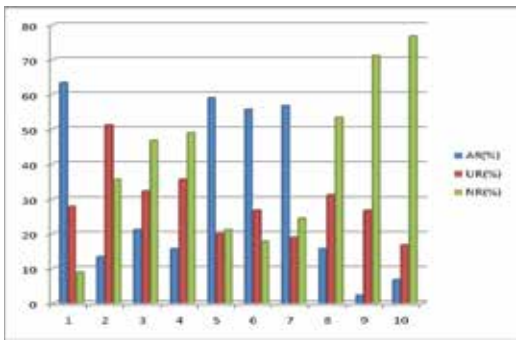

Fig. 9. School-wise students' responses for conceptual understanding of EVS (School 8)

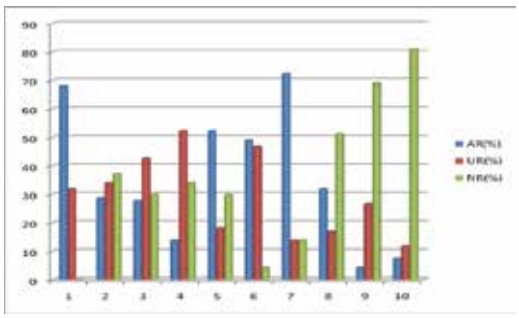

Fig. 10. School-wise students' responses for conceptual understanding of EVS (School 9)

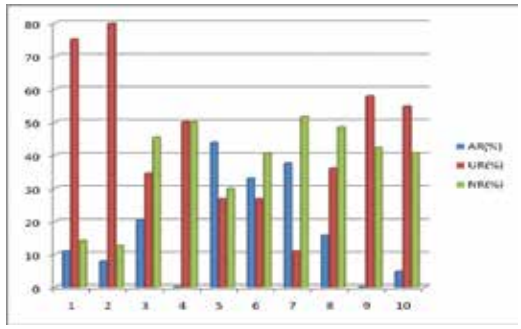

Fig. 11. School-wise students' responses for conceptual understanding of EVS (School 10)

It has been found from the classroom observations that the Hindi medium government schools were lacking in infrastructure and physical facilities and the teachers by and large were using traditional teaching methods (Figs. 13–18, photographs 2-6) whereas the English medium private schools were found rich in infrastructure and the teachers were using latest computer-assisted techniques in classroom transaction as can be seen from the Fig. 18 (photograph 7). The different methods used by the teachers in classroom for transacting the content of EVS in schools are shown in the following Figures 12–18 (photographs 1–7):

Fig. 12. Photograph 1

Fig. 13. Photograph 2

Fig. 14. Photograph 3

Fig. 15. Photograph 4

Fig. 16. Photograph 5

Fig. 17. Photograph 6

Fig. 18. Photograph 7

Findings

On the basis of the analysis of data, the major findings are as follows:

- Academic qualifications of Hindi medium school teachers were found better than that of their English medium counterparts. Analysis also revealed that the percentage of B.Ed. degree holder teachers was 76.2 per cent in Hindi medium schools and in English medium schools it was 73.2 per cent. Hindi medium school teachers possessed more teaching experience in terms of years than that of English medium school teachers. However, teachers were unexposed to the in-service training or refresher programmes.
- The number of students was found less in Hindi medium schools and the teachers were also not in sufficient number to engage the classes. It was also noted that there was no use of ICT in the classroom of Hindi medium schools. However, some of the English medium schools were found having ICT.
- The medium of instruction in none of the schools was purely English or Hindi for transacting the content of EVS. When the teachers asked questions in English about the content of EVS to the students, only a few students replied in English that too in broken English. When students faced problem in replying in English about the content of EVS, the teachers used Hindi (including local variety) and as a result, students were able to answer the questions in Hindi.
- From the analysis of students' response of conceptual understanding of EVS on the basis of medium of instruction it was found that the performance of students of English medium schools was better than that of Hindi medium schools. The maximum percentage of teachers in Hindi and English medium schools who encouraged students' participation in classroom interaction and contributed in creating conducive learning environment is 69 per cent and 89 per cent respectively.

Discussion and Implications

The present study was carried out on 60 teachers and 625 students studying EVS in Classes III–V in different schools of Ajmer District of Rajasthan State.Therefore, the results of the study cannot be generalised to other parts of the country.However, on the basis of findings, the following recommendations are made:

- It was found from the analysis of the responses of conceptual understanding test of EVS that the performance of students of Hindi medium schools was not up to the mark than that of students of English medium schools. Reason for this performance may be related to lack of infrastructure in government Hindi medium schools. It was also observed that in English medium schools there were sufficient number of teachers but in government Hindi medium schools, there was shortage of teachers. Lack of sufficient number of competent teachers may be one of the reasons for not

performing well in subject content of EVS. Although the Hindi medium school teachers are more qualified and experienced than their English medium counterparts, students' performance in their schools is not as good as that of English medium students. It may be because of teachers' frequent involvement in other assigned duties and responsibilities, which may adversely affect the performance of the teachers as well as students in conceptualisation of the content of EVS. Hence, it is suggested that sufficient number of teachers should be made available in the government schools and their additional responsibilities may be minimised so that teachers can devote more time in teaching-learning activities.

- It was found that there were teachers who were unexposed to in-service training programmes for refreshing their subject both in content and pedagogic aspects. Therefore, teachers may be provided opportunity to participate in in-service training programmes for refreshing their subject at least once in a year. They may be suggested to lay more emphasis on the activity-based teaching-learning process leading to meaningful learning the content of EVS.
- Interaction with the students while transacting the subject content of EVS needs to be encouraged. Teachers are expected to link classroom experiences with the experiences outside the classroom situations during content transaction. The infrastructural challenge involved in making available computer hardware and software and connectivity to every school should be ensured for making teaching of EVS interesting and meaningful to the students.

Conclusion

It may be concluded from the analysis of the study that there is a considerable difference in conceptual understanding of EVS between the two groups of students: those who were studying in Hindi medium schools and those who were studying in English medium schools. It is worthwhile to mention here that together with other factors such as the teachers' ability and their methods, mother tongue as medium of instruction plays a vital role in students' full participation in classroom teaching-learning process and conceptual understanding of the subject content of EVS.

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