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A Case Study of the Exchange Learning Program Established Within Three Elementary Schools Using Video Conferencing Systems

Abstract: Three elementary schools located in remote areas, (Kyoto, Shimane and Fukushima Prefectures) join a common program. Each of the school's students spend "SogotekinaGakusyu no Jikan" (periods of integrated study), together through the use of the Video Conferencing System. The System enables the students to deliver their presentations and exchange ideas, while taking into account the environment and circumstances of the local community, school, and student. In the process, students will develop the ability to conduct research at the school library. The teachers will gain knowledge of, and acquire skills in this subject, and have the ability to implement these tools in their respective classrooms. In this presentation, the effect and problems of the Exchange Learning Program will be shown.

1. Introduction

In 2013, discussion commenced in an effort to promote an education system that enabled an individual student to effectively use a singular data terminal in a safe and controlled environment. The aim of the discussion was to 'establish a school education system by the year 2020, suitable for the modernizing world and the 21st century'.

【Background】

Year 2011: Japanese Ministry of Education, Culture, Sports, Science and Technology announced its Educational Vision; "making the best use of technology."

Year 2013: 'Promotion of pioneering Information and Communication Technology (ICT) based education' was discussed in order to develop students' abilities to participate in a society that is information orientated. Data terminals were introduced in schools in several cities, but the ICT based education system has not been effectively used in schools.

【Purpose of the interactive learning program in this case study】

The purpose was to develop the interactive learning program in the 'problem pursuing style.' In this program, students were actively involved in learning. They effectively applied the information and research gathered, and made comprehensive use of the school libraries. In addition, through the 'integrated study' lesson program, three elementary schools across remote areas were able to interact and communicate with each other.

3. Activities

(The following explanations are shown under the pictures).

3-1. Environment:

The students use the school computer to interact and communicate with students in remote places via the Internet.

3-2. Learning method:

Students use electronic whiteboards, tablets, and other applications used in the ICT learning method and develop the skills to enter or accumulate information gathered from different places for use by other students.

3-3. Combination of printed and non-printed material:

In relation to printed material, students accumulate and add new findings to the existing printed material in the library using 'Pass Finder*1.'With regards to non-printed material, the students make improvements on existing sound sources, movies, and pictures. Discussion is conducted to ascertain the role of TV conference systems.

*1 Pass Finder: paper files facilitating the information search by passwords.

3-4. Evaluation:

Teachers perform individual evaluations of the student's ability and motivation to use the ICT program through Rubric*2. Surveys for both teachers and students are conducted to determine the efficacy and continuation of the program.

*2 Rubric:Evaluation of the skills and information acquired by the students. Teachers assess how aptly students are learning, applying and sharing the information gathered.

4. Observation

In the course of developing and drawing up the Exchange Learning Program, it became apparent, that through these interactions, teachers were learning new ways of using ICT equipment and developing techniques and teaching methods from each other, and applying the knowledge in various settings. Thanks to this experience, individual teacher's educational programs were improved and as such, their students became advanced in information literacy.

In order to bring out the best of the students in the 21st century, educational systems and surroundings need to be able to work with students' individual needs and characteristics, whose learning pace differs from each other. This would be a difficult task to tackle for each school. In the Exchange Learning Program, I was involved in coordinating with the three elementary schools, and was supported by fellow staff members from the Learning Commons of Kyoto Sangyo University and students in the teacher librarian training course. In order to establish effective educational styles and teaching materials using the ICT educational method, and to form constructive teacher support systems and networks, assistance from outside individual schools is necessary.

5. Conclusion and future prospects

The Exchange Learning Program program was established in order to develop a curriculum which facilitates the active involvement of its learners. This focuses on the individual's needs, rather than the existing mass learning enviroment. It is our hope that in the future, through the establishment of this curriculum, schools will experience an encouraged exchange with other schools, see an improvement in lessons, and be better able to coordinate with the educational administration. This presentation is another step in the right direction for seeing the Exchange Learning Program introduced across the board in the education system.

Thank you for your time and if you have any questions, feel free to ask.