A Learning System for Internet Addiction Prevention

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Abstract

Preventive education on Internet addiction is quite important for students to recognize the risk of Internet addiction and to practice the correct use of the Internet from the beginning. In this study, we designed a learning model for preventing Internet addiction and developed preventive education materials to provide to students. In addition, we developed a system to support education for Internet addiction prevention based on the learning model. This system is composed of 3 modules supporting such learning activities, which are Internet addiction diagnosis, preventive education materials and preventive activities. Using the system developed in this study, teachers can obtain various materials, which can be shown to students in class, induce students to plan and execute activities to prevent Internet addiction.

1. Introduction

As juveniles' Internet addiction is emerging as a serious social problem, school education needs to cope with Internet addiction. Preventive education is quite important for students to recognize the risk of Internet addiction and to practice the correct use of the Internet from the beginning[2]. In addition, it holds back the rapid increase of the number of Internet addicts and reduces diverse types of damage caused by Internet addiction. So, this study developed a system to support education for Internet addiction prevention based on the learning model.

2. The prevention of Internet Addiction

Goldberg defined the concept as the pathological and obsessive use of the Internet and included factors such as tolerance and withdrawal symptoms as criteria for diagnosing the disorder [1].

Previous researches on the prevention of Internet addiction utilize several common methods as follows. First, identify the pattern of Internet overuse[3].

Second, investigate situations or causes that make Internet users absorbed into the Internet[3]. It is possible to treat Internet addiction or to prevent it by identifying the causes of problems and removing them. Third, plan and practice a time table for Internet use[3][4]. Planning and practicing a schedule is helpful in developing self-control. Fourth, enjoy activities other than the Internet[4]. If one finds more pleasant and interesting things than the Internet, he/she may be able to reduce time for Internet use.

These methods need to be reorganized for preventive education and school classes for all kinds of Internet users.

3. Learning Model for Internet addiction prevention

The objective of the Internet addiction prevention education is for all students who use the Internet to recognize the seriousness of the Internet addiction problem, to develop self-control in using the Internet and to learn how to use the Internet correctly.

For these purposes, Internet addiction prevention learning is composed of five steps. Step 1 is to recognize the problem. In the step, students understand Internet addiction and its influences. Step 2 is to take addiction as my own problem, students observe the pattern of Internet use, test Internet addiction, and recognize that Internet addiction can be my own problem. Step 3 is to look for solutions, students examine methods of preventing and treating Internet addiction and methods of utilizing the Internet in education. Step 4 is to plan Internet use, students plan time for Internet use, educational utilization of the Internet and various activities alternative to the Internet. Step 5 is to execute plans established in Step 4, students record the results, evaluate them and share them with other students.

4. Design of the system

The system to support preventive education is composed of three modules, which are contents for

preventive education that teachers are to present to students in class, Internet addiction diagnosis with which students can evaluate the degree of addiction for themselves and get the indivisual results of the evalution, and preventive activities such as time table, records of alternative activities and self-evaluation. The structure of the system can be diagramed as Figure 1.
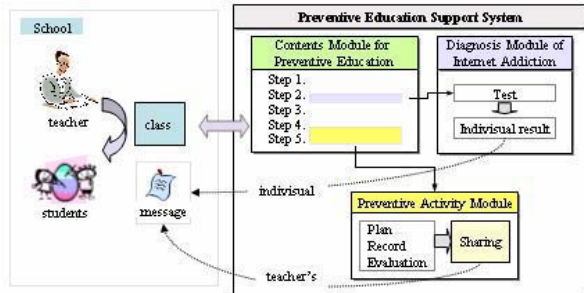

Figure 1. Composition of the system

The contents are linked to the diagnosis module and preventive activity module, so students can experiences various activities proposed as contents for each step. In the preventive activity module, students share the results of the preventive activities so that teacher can leave messages for the activity contents.

Contents for preventive education are composed of detailed items for the five steps in the proposed learning model. The contents enable teachers to guide students through the steps of learning on Internet addiction, to provide relevant materials, and to teach Internet addiction-preventing classes.

Table 1. Contents for preventive education

Step	Detailed contents
1	• Overview of Internet addiction • Case studies of Internet addiction • Evaluating the influence of Internet addiction
2	• Observe the pattern of Internet use • Diagnose Internet addiction • Check the environment of Internet use
3	• Methods of prevention • Strategies of recovery • Educational use of Internet
4	• Plan educational use of Internet • Create a time table for Internet use • Plan alternative activities
5	• Record the results of executing Internet use • Evaluation and sharing

5. Implementation of the system

The contents module for preventive education included graphics, animations and videos to be presented to students. The diagnose module is to determine the degree of Internet addiction in Step 2 of contents module. The preventive activity module is to promote the right use of Internet in Step 4 and 5 of contents module. Using this module, students plan their Internet use, record and evaluate the results of executing the plans, so that they can control own internet use. Furthermore students share the results that utilize Internet in education with other students. The Figure 2 shows a screen in the preventive activity module. Teacher read shared students' contents, then leave a message to the student.

Figure 2. Composition of the system

6. Conclusion

This study developed a learning model for Internet addiction-preventing education, designed contents for preventive education by applying the model, and developed a learning system based on the contents.

Using the system developed in this study, students can view the results of Internet addiction diagnosis for them and teachers can obtain various materials, which can be shown to students in class, induce students to plan and execute activities to prevent Internet addiction by themselves. The results of this study are expected to be applied to school education for Internet addiction prevention and contribute to the solution of juveniles' serious Internet addiction problem.

7. References

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