Abstract

The aim of this practice is preventing cyber-bullying with leaflets and newsletters which give information about events and cases to students, guardians and teachers.

School supports them without the means of a class to gain the extensive knowledge on an information-oriented society in the view point of Web Science.

This approach is not seeking education by prohibitions, but aiming at students abilities to be able to guess the meaning of an information-oriented society by context of case studies.

This paper shows that most cyber-bullying is caused by ignorance of students about mobile phone and the Internet. The best way school can take is “prevention”.

The biggest reason why guardians can not give guidance to their children is that they are lacking in knowledge on mobile phones and the Internet and can go along with children’s way of using mobile phones and the Internet.

This paper describes that the success of prevention of cyber-bullying in school depends on guardians. The guidance to guardians by school is very important to prevent cyber-bullying.

It is most important that school does not forbid students to use all digital equipments or services in school or at home, and supports them to obtain the ability to guess the new society which will be changed by technology in the future.

1. Background

1.1 The present conditions of cyber bullying

In May, a High School girl (17) living in Kitakyushu City committed suicide because her friend wrote “You should die” in a blog. In October, the Saitama City Board of Education announced that a girl (15) of Junior High School killed herself because of cyber-bullying. Many students died successively and cyber-bullying is a serious problem in Japan.

In January 2009, the MEXT notified all Prefectural Boards of Education in Japan that mobile phones are now banned in principle in an Elementary and Junior High Schools, and mobile phones allowed in High Schools.

1.2 Characteristics of Japanese bullying, “Ijime”

Indirect aggression aims to give psychological harm to the victim. It is hard for the third person to prove bullying of indirect aggression. The bullying of indirect aggression does not always have a fixed relation between “bully and victim”. In the case of the bullying of direct aggression the relationship is fixed. The bullying of indirect aggression has the characteristics that the situation of bully and victim might always be changeable.

Physical violence of direct aggression is illegal and a bully can easily be accused by criminal law. On the other hand, even if many bullies participate in bullying and the victim commits suicide, in many cases, the perpetrators are not accused by criminal law. Intervention to the bully is not effective on bullying of indirect aggression, so intervention is required to all students to prevent and understand indirect bullying.

2. Problems of Mobile phone

2.1 The heart of the matter with mobile phones

The most remarkable characteristics of mobile phone are their mobility and high performance. The point of the problem concerning mobile phones is that children can accomplish tremendous matters using their mobile phone in secret.

When children use mobile phones, their knowledge and morality are the only things that control them. Immature children can become victims or perpetrators because of their ignorance. In addition, bad adults who try to deceive children can enlarge the suffering of children. School faces the darkness of the Internet society, and has no way to overcome it.

2.2 Why is prevention necessary?

The biggest reason that cyber-bullying and illegal acts are not stopped is the misunderstanding and ignorance that the net is anonymous.

Students do not understand what strong weapons mobile phones and the Internet are. Students send illegal message defaming others on the Internet, just like they easily spread groundless rumors to friends before their eyes. They send personal information, address, name, telephone number, mail address, picture taken by a mobile phone camera without any guilty conscience. They can not realize how many people read the messages and pictures.

Once the message has been sent on the mobile phone internet and the Internet, it is hard to delete them because of the constitution, “secret of
communication", “freedom of expression”, “freedom of speech” and the provider law. Only the sender can delete the message. Generally speaking, the anonymity of the Internet is very high, because the nameless senders of illegal information cannot be detected easily. It takes a lot of time to find the perpetrator so the damage of victims is extended.

Even though the sender is detected and the original information or data defaming others is deleted, a defaming message, or illegal personal information or pictures, which seriously invade people’s human rights, have already been copied repeatedly through the bulletin board system and peer-to-peer file exchanging software. Actually it is impossible to delete them all.

Sending illegal information through mobile phones and the Internet gives serious anguish and can sometimes drive victims to suicide. Students who send illegal messages or information on the Internet because of ignorance have to accept responsibility for their criminal acts. However, it is too big for students and their guardians to take all the responsibility. Therefore, the most important thing is complete prevention against cyber-bullying.

2.3 The limits of school guidance

It is essential for guardians to instruct their children in the use of mobile phones and the Internet to prevent cyber-bullying.

Schools have made a desperate effort to prevent trouble caused by mobile phones and the Internet, but despite this schools’ troubles have been increasing. Schools have reached their limits of guidance on the use of mobile phones and the Internet. We might have to recognize that instruction of mobile phones and the Internet has become too much for schools.

Students who refuse to go to school because of cyber-bullying have increased. If the use of mobile phones is banned in school, cyber-bullying occurs outside of school. School does not even have authority to ask providers and administrators of the sites to delete the illegal defamations on the net, because of the laws and regulations.

2.4 The biggest reason guardians can not instruct

The lack of a guardian’s knowledge about mobile phones, the Internet and an information-oriented society is the biggest reason that guardians can not instruct on the use of mobile phones and the Internet.

Guardians do not understand the increased importance of mobile phones in student's life. They can hardly keep up with teenagers' use of mobile phone.

20 percent of students use mobile phones for more than 3 hours a day (S High School, 2008). 37 percent of Junior High and High school students think it is important to be sent a replay email to a received email at once, and 18 percent think to be sent in 5 minutes (private research, 2008). Some students were excluded and bullied because they did not reply mail quickly. To notice received emails, some students use their mobile phones during dinner. Guardians are concerned about dating sites, net fraud, fictitious charges, mobile phone addiction, and harmful information sites etc.

Guardians do not understand how students use the mobile phone and the Internet. Only 47 percent of guardians know the actual use by students (S High School, 2007). 70 percent of guardians of Junior High and High School students do not know that their children use blogs, profile home page sites, BBS, SNS, etc. A fixed sum system of paying for mobile phones makes it difficult for guardians to know the exact use by students.

2.5 Guardian’s take responsibility with support from school

Guardians and school can not confront the darkness of the Internet society unless guardians can instruct the use of mobile phones and the Internet at home. The teenagers know everything about mobile phones. It will not be long before they become parents then the sufficient instructions can be given to students at home.

Guardians should have responsibility of minors’ use of mobile phones and the Internet. School have to make their position clear, inside and out-side of school, that guardians should make themselves responsible for the use of mobile phones and the Internet by students.

3. Purpose of the study

The purpose of this practice is to support students to obtain the ability to have an insight into an information-oriented society, and to prevent cyber-bullying. The second purpose is to reconstruct school education of information morality from a viewpoint of a guardian’s responsibility for the use of mobile phones and the Internet by students.

The details are as follows;
We help students to learn information morality through case studies and understand how our information network society will be changing.

Students learn how information technology influences people, their daily life, the market and the law. They learn to recognize the information network society as a system composed of many social factors. Then they will be able to adapt themselves to deal with unknown situations more effectively in the future.

We help students to understand the intention of the information sender on the Internet or the intention of the person who sent the e-mail by asking them why these cases or events have happened.

We prevent students from getting involved in troubles as a victim or a perpetrator owing to a lack of
knowledge of the Internet and information technology. We help students and parents to obtain the ability to adapt themselves to the information network society, which is also rapidly changing.

We help students to obtain the ability and aptitude to make judgments using their own initiative without being confused by transient incidents or social trends.

3. From an approach of ban to an approach of having an insight into society; An interdisciplinary approach to “Web Science”

The influence of the progress of technology in Web society is much larger, and much more rapid, than in the real world. The changes of Web network society precede the real world. Students live in a Web network world and guardians live in the real world. The difference between them is getting larger. The progress of Web networks brings a revolution into the real world and nobody can stop that. Guardians have to have more knowledge about Web Science.

3.2 Merit of a Web Science approach in school

Students neglect school instruction to keep safe on the Net. They do not like moral education and never listen to serious instruction of principles. A merit of a Web Science approach is that it does not depend on compulsion of morality or prohibition. Learning the events or cases, students understand why they happened, or think how technology related to them. Then they come to recognize the changes of society as a process of social development; they gain an insight into an information-oriented society, and adapt themselves to the changes of a society. An insight into a technological society is useful to decide their courses in the future. It helps students to choose an occupation that they will not loose in 10 or 20 years hence.

4. Target of development of method

The following is the aim of method.
1) To put emphasis on a timely instruction.
2) To reduce a tendency of moral education.
   Three years instruction in a way of no compulsion of morality, have same effect as moral education.
3) To keep a way to always provide information to guardians.
4) To utilize the instruction of guardians to the max.
5) Guidance to be short.
6) To require no prior knowledge.
7) To be used repeatedly.
   Repeating the method is more effective.
8) To be a Web Science approach.

5. Method

5.1 Complete prevention

It is actually impossible to delete information and data sent on the Net. For complete prevention, Information and warning of the Net are given to students and guardians with leaflets at every opportunity, short homeroom class, classes, long homeroom class, school meetings, PTA committee, PTA general meetings.

5.2 Guidance with leaflets in short homeroom class

We have published and produced a regular series of leaflets, “The SEKIKO Good Net News for Family (pic.1)”. The leaflet is like a newsletter concerning information morality and new information network technology. We have distributed 185 editions of “The SEKIKO Good Net News for Family” to all students and their parents since 2002. Every homeroom teacher hands out leaflets to his classroom students during their short homeroom sessions, and comments on a story just for one minute, for example, texting by mobile phone or a case of cyber bullying that occurred in our school, or recent cyber crimes. Sometimes the teacher will caution the students not to bully with mobile phones or the Internet.

After students read each leaflet, they hand it over to their parents. We help parents to understand new technologies and what students are doing at school or in their daily lives.

Every year, we edit all of the distributed leaflets for that year and write an Annual Textbook of Information-related Education.

5.3 Guidance given to new freshmen and guardians prior to starting school

The Annual Textbook will be given to all new freshmen and their parents of next year when they attend a briefing. School encourages them to read the Textbook before students enter High School.

To guardians, in front of students, school explains what kinds of illegal acts can be conducted with mobile phones and how cooperation from parents is needed. Parents’ responsibility for children’s use of mobile phones is confirmed.

Freshmen have less knowledge on mobile phones and the Internet. They are a high-risk group, who can easily get involved in trouble. The intensive instruction targets the high-risk group. New freshmen and their guardians are promoted to understand the danger of the Net with the Textbook and to talk about that before entering High School.

5.4 An immediate and intensive instruction

An immediate and intensive program of guidance is given to freshmen in their first three months. Freshmen are taught a program about characteristics and dangers of the Net again and again. The program
prevents freshmen becoming either a victim or perpetrator.

5.5 Contents of leaflet
At least one quiz is made to present a problem, and let students think why the event happened and what the point of the problem is.

Contents are the following:
(1) Events in school
Students think why did the event happen and why was it not prevented / how could it have been prevented.
(2) Risk information
Information about management system and dangers of BBS, dating site, underground site, profile home page, SNS, free game sites on a mobile phone internet are given. Students especially think why these services are free, students guess the true intention of these services.
(3) About cyber-bullying
School explains that the difference between bullying by direct aggression and bullying by indirect aggression. Students understand that cyber-bullying is bullying by indirect aggression, and characteristics and countermeasures against cyber-bullying.
(4) Request of guardians' instruction
As soon as a serious event, such as a suicide by cyber-bullying, a murder caused by dating site, buying hemp through the Net has occurred, detailed information is given to students and guardians in a leaflet. School requests guardians to check the use of mobile phones and the Internet by students are safe.
(5) Explanation on information technology
Explanation of familiar technology, the Internet system, the newest trend of computer, the mechanism of mobile phones, organic EL is provided by leaflets. Students know that the sender of illegal information can be detected technologically and understands that the Net has a high anonymity, but is not anonymous.
A case study of a typical event, or example, corrects misunderstandings and incorrect knowledge on mobile phones and the Internet.
(6) Impact given to industry by information technology
Digital technology, how products and traditional industry have been influenced, changed and declined. On the contrary what kinds of new services or products has technology provided? How has technology changed daily life and the law? Finally, how has a society been changed by information technology? School shows students the influence to market or law.
(7) Information-oriented society
School indicates that the progress of technology and development of an information-oriented society more often causes an invasion of human right of individuals, School gives a basic knowledge on copy right law, freedom of expression, freedom of speech and confidence of communication, protection of personal information.

There are many illegal copying and leakage of personal information because of file exchanging software. P2P software such as “Winny” has caused serious problems in Japan. Schools show the use of such software is illegal, and gives repeated warnings not to install it.

(8) The future built by technology
We discuss what will become of our technological society in the future with a leaflet.

6. Results
The methods using leaflets are very effective. School has practiced these methods for three years, and could get rid of all trouble caused by mobile phones and the Internet in school. The main reason for its effectiveness is the following:

Leaflets are so flexible that the school can use them for any purpose, in combination with various methods. This practice proved that these combinations have been very effective. We can make a leaflet quickly, take it anywhere and teach immediately. The merits of flexibility, which class lessons do not have, have extended the target from students to guardians, and increased the chances of timely guidance.

All results show that there is no difference between the basic concept of prevention against cyber-bullying and that of traditional bullying. The different point is that significant knowledge of the power of technology is necessary to prevent cyber-bullying.

The practical effects are the following:

(1) Effects of easy reading
□ Only a short time, a few minutes, is needed to learn. School can teach information-related education in a very short time during short homeroom sessions. School can not have enough class for information-related education. This method improved two issues of regular class and information-related education. The method with leaflets is so flexible that it has immediate and certain effects for prevention of problems on the Net, even though there was insufficient time for full school guidance.
□ The leaflets are easy to understand so that those who read them do not require any prior knowledge of the matter. Students can start learning any topics, whenever they want.
□ The leaflet is so easy that it does not burden students at all. Even if a person read it for the first time, they can understand it easily. Using a good quiz, students enjoyed learning more.

(2) Effect of timely publishing
□ As soon as a serious event or a dangerous case takes place, we write a leaflet about those topics and give new information or knowledge to students and parents. We stopped students having to face the same risks as
these cases. Especially, repeated warnings to the freshmen year and reduced exposure of personal information on the Net, which is sent with mobile phone cameras from school often.

- With a leaflet school gives information to guardians at anytime. As soon as a profile homepage caused a suicide, school informed both guardians and students of the details of the event, and gave instructions and guidance to check that students’ use of mobile phones is safe.

3. Effect of case studies

- The leaflets have a positive impact, students and parents can learn how to take precautions against cyber bullying and crime. Also, by using actual cases or newspaper topics, students can learn with greater interest because it’s from their own real world.

Students do not want to face the danger but do not like moral education.

4. Learning the risk of mobile phones and the Internet

- Learning the risk of mobile phones and the Internet before new freshmen enter High School was a very effective way to prevent new freshmen getting involved in trouble because of ignorance on mobile phones and the Internet. In Japan, one third of Elementary School pupils, half of junior High School students, and 97 percent of High School students have mobile phones. Half of freshmen start to use mobile phones for the first time. They do not have enough knowledge on mobile phones. The simultaneous guidance to students and parents is very effective.

5. Campaign for communication with guardians

- 73 percent of guardians think that school guidance with leaflets is useful. As a result parents recognize that they have responsibility for students’ use of mobile phones at school. Parents realized the power of mobile phones and the Internet, and the limits of school guidance to students. School easily obtained parents’ cooperation for school instruction.

- Leaflets give an opportunity to talk about the use of mobile phones and the Internet at home. In response to the schools request for safety checks, more guardians discussed safety and use of mobile phones with students. According to the result of questionnaire many parents felt the leaflet was also useful for instructing other siblings.

6. Teacher-training and Web Science

- A teacher who doesn’t have any knowledge about cyber bullying and technology can teach information-related education to students by using these leaflets. Teachers can obtain current information to inform this.

- Teachers, students and parents can obtain a fundamental understanding of information morality, (for example, cyber bullying, the Internet, information technology, copyright, law) just by reading one textbook. They do not have to read many books.

The textbook of information-related education edited every year is useful for teacher training also. They can learn how technology, a law, network society have been changing.

- Leaflets and Textbook are digital and its contents is easily distributed to homes or other schools through the mobile phone Internet and the Internet.

7. Monitoring the effect of our guidance

- We surveyed the attitude of students and parents on the use of mobile phones and the role of parents by using a questionnaire about cyber-bullying. According to the survey, 41 percent of students don’t keep the school regulations about using their mobile phone in school. Also, only 45 percent of parents agreed to students using mobile phones at school. Therefore, mobile phones remain banned at school.

7. Issues and solutions

Officially, school has prevented trouble caused by mobile phones and the Internet completely. Actually, there is the possibility that cyber-bullying goes underground, continues secretly and becomes more serious. School keeps sufficient communication with guardians. School established a system that guardians inform the school if they suspect any symptoms of cyber-bullying at home.

- 25 percent of students do not read the leaflet. We take a countermeasure that the homeroom teacher urges students to read leaflet and give short comment about it.

- A leaflet can not substitute a class. It is important that essential instruction should be done in a class and a whole school meeting too, especially, a whole school meeting is very effective. A whole school meeting can make students understand the matter is a serious problem.

- 25 percent of guardians do not receive the leaflet at all. Students do not pass them on to parents. Students don’t want to pass the warning information to ban the use of mobile phones and the Internet. We take a countermeasure that school send a leaflet to guardians through their e-mail.

- The best guidance for each school is important. The actual conditions of use of mobile phones and the Internet in each school vary very much. One school could be banned and another should not.

- What kind of problems are there in an information-oriented society, how important is each problem? Which problem should be picked up? We call these studies ‘Mapping’. Mapping is very important. Mapping should be done from viewpoint of Web Science. It is very important for good mapping to understand innovation of technology and computer science, and to catch the changes of a society. The most important thing is to have greater insight into information-oriented society.