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Human and Animal Welfare: A computer game as a tool to enhance moral sensitivity

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Abstract

This paper explores the potential of computer games as tools to enhance students' development of moral sensitivity. As computer games are an important part of children's leisure lives and of our culture as a whole, it can be argued that the experience of electronic gaming today is part of the construction of identity and morality. This paper explores the learning potential of a computer game to enhance students' moral sensitivity. The problem is studied in the specific context of a game on human use of animals. Studies report that schools have difficulties in reaching the aims of developing in students the citizenship values stated in the curriculum

Background

This paper explores the potential of computer games as tools to enhance students' development of moral sensitivity.

Young people have to build a morality of their own in interaction with the world they live in. As computer games are an important part of children's leisure lives and an important part of our culture as a whole (Kirriemuir & Mc Farlane, 2003) it can be argued that the experience of electronic gaming today is part of the construction of identity and morality (Svingby, 2005). Computer games have often been described as morally destructive, but researchers have shown that 'good video games', that is games that build on simulation, offer a range of learning potential, can be a powerful medium to support learning (Gee, 2003, 2006, Jenkins, 2005, Kirriemuir & Mc Farlane, 2003, Prensky, 2006).

The educational use of electronic simulation games works the same way--not as a replacement for good teaching or tried-and-true methods, but as a tool that good teachers can use to spark learning and to provide a context for a range of other related experiences. More and more teachers are bringing games into their classrooms on these terms (Jenkins, 2005).

In many European countries Citizenship education is given the aim to help students develop the core values of the society they are part of.

This paper explores the learning potential of a computer game to enhance students' moral sensitivity. The problem is studied in the specific context of a game on man's use of animals. This issue has grown controversial during the last decades, which is illustrated by questions like 'For what reasons and to what extent can humans use animals? How can you distinguish use from abuse?' There are no simple answers to

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these and similar questions and the debate has provoked strong feelings, and even violent and law breaking actions. In some school curricula like the Swedish, the issue is part of the aim of citizenship education. Studies report that schools have difficulties in reaching the aims of developing in students the citizenship values stated in the curriculum. Teachers also find it difficult to deal with moral issues in a time where there are few clear rules and much ambiguity, as observed by European researchers.

Life in post-modern society is characterised by moral ambivalence and competing moral discourses, even within one individual. The statement that morality is socially grounded is not controversial. It gets controversial only in the actual situation of cultural and moral heterogeneity of many European countries. Morality seems to be increasingly uncertain, fragmented, and pluralistic.

In such a world of conflicting moralities and lifestyles, young people have to develop the ability to reflect on and articulate the morality of their own actions. As part of 'citizenship education' schools have been assigned an important role in helping students to develop in this respect. Education needs to enhance a truly situational morality by developing situational sensitivity (Bagnall, 1998). In order to acquire such sensitivity in decision making, there is a need for relevant factual information.

What sort of educational experiences may contribute to moral sensitivity? The traditional method of teaching of rules and morals as transmitting from teacher to students is not effective enough.

As an example, in a national survey Swedish students aged 15-16 expressed negative attitudes towards the use of animals for medical research but are positive to cosmetics tested on animals. For most of the students the attitude is hardly reflected, and the majority of the students seem unable to articulate the rationale behind their moral choices (Oscarsson & Svingby, 2005).

When discussing what schools can do the importance of experience - lived or simulated - in forming values is underlined. Simulated situations may locate the learner in situations which are authentic interpretations of the situations-as-lived or are truly fictional. It is argued that this can be done by interactive computer games (Nussbaum, 1990, Gee, 2006).

Games and learning

Computer games are part of every day life for many European young persons, and they already use them to act out various types of morality. While commercial video games often stress a match between worlds and characters like soldiers or thieves, there is no reason why other types of games could not let players experience such a match between the world and the way a particular type of scientist, for instance, sees and acts on the world (Gee, 2006, p.14). Such games would involve facing the sorts of problems and challenges that a scientist does and playing by the rules that the scientist uses.

The fact that most simulation games offer multiple perspectives and often ask the player to assume multiple roles in the course of the game play is a reason for this assumption.

Researchers like Jenkins (2005) and Gee (2006) argue that games have a great potential for learning by linking virtual world problems to problems in the real world, and by allowing players to test different identities and roles. Games can also create a social context that connects learners to others who share their interests. The act of sharing what we know solidifies our own understanding and also provides a sense of empowerment and expertise.

Gee argues that learning is imbedded in simulation games. One factor is that in such games the player builds a virtual character, which s/he controls in the virtual world. Through the character the player acts and interacts within the simulation. In order to reach her/his goals, the player must recognise problems and solve them from within the simulated world. This essentially means that the player must figure out the rule system that constitutes the simulation. A player, thus, can test out consequences in a virtual world before s/he acts in the real world.

Secondly, the player can explore various identities. When acting out one or more characters in a virtual world s/he may meet issues that are relevant also in the real world. Eventually s/he may project and confront her/his own values in the game world.

Since video games are “action-and goal-directed preparations for, and simulations of, embodied experience” they allow language to be put into the context of dialogue, experience, images, and actions. Furthermore, good video games give verbal information “just in time” – near the time it can actually be used – or “on demand” – when the player feels a need for it and is ready for it (Gee, 2006, p. 17)

Drawing on socio cultural theories, it is further easy to see that games give opportunities to the formation of learning communities, which can support collaborative learning or knowledge building (Vygotsky, 1978, Malmberg, 2006).

The issue of man and animal

Since Singer published his book *Animal liberation* (1975) the debate has been intense on man’s right to use animals for his own good. The debate has focused on a range of situations where animals are used (and abused) by man.

The positions range from on one hand seeing man first of all as an animal amongst animals to on the other hand stressing man’s superiority to the rest of the creation, with an absolute right to use animals in his own interests.

We can exemplify with animals within laboratories, and with the situation for animals raised for food use. Young people in many countries have been deeply involved in questioning the morality of consuming animals, and of using them for research and clothing (Gålmark, 1998). The debate has contributed to national and international regulations and practice (Orlans, 2002). As a consequence of the debate, Swedish schools now offer vegetarian food as a luncheon alternative.

Recent studies indicate that the majority of Swedish students on a general question agree with the position that ascribes the same value to animals as to humans. The consequence would mean that the Human rights declaration also should apply to the animal world (Jönsson & Persson, 2006).

When however confronted with specific, authentic situations which involve human illness, the majority give preference to man and consider it right to use animals for medical research. The studies, however, show that boys and girls as groups express very different positions. While a majority of the boys in authentic situations say that a man's life has a higher value than that of an animal, only one third of the girls support the same opinion. The dominant argument forwarded by the girls is that animals should not suffer because of human's disastrous ways of life. The answers to factual questions revealed that students' decisions to a large extent were based on emotions and not on factual knowledge or on reflected values. On the whole, the students were ignorant of the basic knowledge of the issue. For the majority of the students, the answers, thus, did not mirror a reflected moral attitude on the use of animals but a strong interest in the issue. Answers from both students and teachers indicate that moral issues like the use and abuse of animals is seldom dealt with in schools (Jönsson & Persson, 2006).

'Man and Animals' - a computer game as a tool for citizenship education

In order to test the assumption that a 'good simulation game' can be used to help students develop their knowledge and sensitivity of a value issue, a computer game was developed and tested. The study reports on the experiences of a game in school. A simple computer game *Man and Animals* was designed at Malmö University School of Teacher Education and Malmö University Centre for Game Studies, with grants from The Knowledge and Competence Foundation, Astra Zeneca AB and Navigator HB, Sweden. The game was built with the intent to let players explore the complex interrelationships between men and animals. The players are confronted with authentic simulated situations where man uses various animals as food, for clothing, as pets, for enjoyment, and for cosmetic tests, and medical research.

The game is based on the assumption that to build a morality of his/her own a student has to be engaged in authentic/virtual problems that can be 'solved' in more than one way. Each solution should represent different moral values. Of equal importance is the assumption of the importance of engagement and reflection. The possibility of a good game to involve players should be matched by a request for more information, and for discussion and reflection. The game is built to correspond with these assumptions. The recommendation to play the game in pairs is also in line with the request for discussion and reflection.

When playing the game, students will meet with and explore different value positions. In order to make the decisions taken during the game more informed and reflected, the game presents relevant factual information and puts the player in situations with time for discussion and reflection. The game was tested on twenty young students in 2005 and then revised (Svingby, 2005, Bergman & Svingby, 2006). The revised version focuses on using animals for food, medical research and cosmetic tests. The game takes

approximately 45 minutes to play. It can be played several times allowing students to test the consequences of polar value positions.

A virtual city

The game setting is a small virtual city. The players act the character of Mayor of the city. The game presents a range of realistic situations which force the Mayor (the players) to take decisions on *if* and *how* to use animals for medical research, as food, and for tests. In order to take a reflected decision, players can ask for advice from the five members of the 'Citizenship committee'. These are virtual characters designed to represent five positions on a scale from animal liberationist – free all animals – to the position that man can use all animals without any restrictions (Orlans, 1993). Additional facts are presented to players if they ask for it. A 'good' choice may give the players credit. Choices are reacted to by the villagers. At any time, the players can get an indication of how satisfied the villagers are. To use animals for medical research will, as an example, gain credit from those positive to man's use of animals at large, but will create hostility from 'animal liberationists'. Continuously, players can also observe their decisions in relation to the five value positions referred to above.

The game is constructed to give the players enough time to reflect on the situations before taking a decision with enduring effects. This is met by situations that are complicated and 'slow'. Quite substantial texts are presented, and players are given time to read, reflect, and discuss. Various long term health problems representing different degrees of self-infliction are presented to the Mayor, who chooses among five different long-term actions.

The demand for 'fast action' is met, when unforeseen things occur which demand immediate action.

Research Questions

The overall aim of the study is to investigate if the game, when used in a school setting, can help young people develop a more reflective and more informed moral attitude towards the issue of man's use of animals. The following more specific questions were explored:

1. If and how students engage in discussions on the use of animals for the benefit of man,
2. If and how students use the factual information offered by the game and express a wish for more information,
3. If and how students change moral attitude towards man's use of animals and how they estimate the impact of the game on the attitude of players to man's use of animals,
4. How do students experience the game?

The questions are built on the assumption that when exposed to virtual but authentic situations which can be solved in several ways, young people are helped in the building of their reflective values and eventually in changing their naïve attitudes. Secondly, to

work like this, the actions in the game have to be reflected on, and the players will be informed as well as emotionally involved.

An empirical study

In order to answer the research questions the game was tested on students aged 18-19. The experiment group consisted of two groups of 20 and 24 students (Group 1-2), who were studying at a theoretical programme and two groups of 22 from vocational programmes: a group of men studying data technology and medicine technology (Group 3) and a group of women studying how to handle horses (Group 4).

The game was played as part of the curriculum for philosophy and religious studies.

Data collection

The attitudes of the students towards man's use of animals and what animals they could accept for scientific research were collected by a questionnaire with multiple-choice and open questions (Q1). Some of the questions portrayed authentic dilemmas.

Students' experiences of games (Q2) and the experiences of and reactions on playing the game on Humans and Animals were tested with multiple-choice and open questions (Q3).

Students' use of and questions for factual information was gathered by observation/ field notes (O) and questionnaire (Q3).

Students' discussions when playing were gathered by observation/ field notes (O).

Design

The questionnaire Q1 was given to the students in Group 2-4 about a week before playing.

Immediately before playing all students answered the questionnaire Q2 and after playing they answered Q3 and Q1. Observations were made during playing.

Results

The game was very well received by the students, who found it interesting and thought provoking. The fact that the game was played in the classroom added to its value. The students were observed to be intensely engaged in discussions both when playing the slow situations and when new situations occurred and they had to decide what to do. The situations where the students had to make decisions were found to be thought provoking and demanding, and in some instances even funny. Two thirds of the students experienced the continuous demand for decision-making as highly engaging, whereas a group consisting mainly of male players in contrast mentioned the striving for credits as most engaging.

The students showed almost the same attitude to the general question of man's and animal's value after as before playing. After playing, however, they were more in favour of using animals for medical and scientific research, but not for tests of chemical products as a whole. The greatest change appeared among the women in Group 2, who initially were more restrictive than the men to the use of animals but after playing differed less from the attitudes of the men. The women in Group 4 did not show the same change in overall attitude to the use of animals. On the question of which animals they could accept for scientific research, however, they appeared more tolerant to the use of animals, especially of rats, than before playing. The game obviously made them question and revise their initial general morality of man and animals.

On an open question on whether players would be influenced by the game a majority of the students estimated that players' attitudes to man's use of animals could be influenced. Out of men who played computer games every day or every week, however, a majority questioned the impact or gave no answer at all. But on the whole the students argued that playing the game will make you more observant, more conscious and more sensible on the issue.

The most interesting thing in the game was, according to a majority, that it embedded realistic situations where you had to make difficult decisions and could see the results in the virtual community. It makes you aware of how society has to deal with problems that its inhabitants evaluate in different ways - and makes clear 'how difficult it must be to be a politician'!

The students appreciated that they encounter different opinions and also get new information in the game, but the ambition with the game is that it also should awake a need for further studies. So far it has not been used for more elaborated studies at school, but the answers on an open question indicated that a majority of the students were interested in acquiring more information on the issue, such as how animals are treated in research laboratories, the different opinions on this matter, what benefits research on animals have resulted in, information about human illnesses and their origin, and about national and international laws on animal rights. Information of this kind can be found via internet links that are connected to the game, and which can be used by teachers in classroom follow ups of the game.

Conclusion

Gee (2003) discusses the presence of different semiotic domains and identities in game playing: the virtual, the real and the projective identity. In this game the players take the virtual identity of a decision maker. The outcome of the game will depend on whether the players engage in the moral problems of the game or in reaching the highest possible credit. The students' 'projective identity', the identity they find most appropriate in the play situation, will either reflect the player's own values independent of the credit given, or it will reflect the values that the players estimate will give the best credit. As the content is very close to real life, the problems that the players are confronted with in the virtual world have their equivalents in the real world.

By playing the game students are involved in realistic situations. The game confronted students with situations and consequences which made them question and revise their initial general morality of men and animals. The study indicates that the game can be a rewarding tool both for engaging students in moral problems and for the deepening of the understanding of such problems.

The game brings questions of similarities and differences between man and animals, of human versus animal rights, of research ethics, food production, and laws to the fore, questions that can be followed up in the classroom.

The study supports the assumption that a good simulation game on a central issue may be a valuable tool to stimulate students' engagement in and learning of values. We agree with Gee, that further studies of actual learning and the integration of the game in the school learning system are needed to realise the full learning potential of games in Citizenship education.

The cutting edge of games and learning is realising the potential of games for learning by building good games into good learning systems in and out of school. (Gee, 2006, p. 21).

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