On the Role of New Technology in Character Education

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This paper discusses the place of new technology in character education. It starts by providing a background to the literature and moves on to seeing how this played out in practice through the My Character project[1]. Interviews were conducted with 3 teachers and 49 students in Y7,Y8 and Y9. The students were mostly interviewed in small groups but some data were also gathered from a class of 27 Y9 students. The purpose of the paper is to give an overview of the theme in the light of evidence drawn from teachers and young people about how it is viewed and operationalised in teaching and learning about character and virtues.

The opinions expressed in this piece are those of the author and are not necessarily shared by the My Character development team.

New Technology and the My Character project

Ever since new technologies were introduced into British classrooms in the 1980s, teachers have tried to optimise their value as tools to support and enrich learning. Broadly speaking, three different kinds of usage have been identified in classrooms. Firstly, computers are superb sources of information and knowledge. Second, they can support learning with pedagogical tools of many different kinds and thirdly, they can assist students in mastering essential computer skills which are so important and all-pervasive in today's knowledge society (Somekh, 2000; Tondeur *et al*, 2007). So much so, that the government has placed computer skills and the acquisition of media literacy at the heart of both the primary and the secondary curriculum (Wegerif, 2010).

Computers and new technology can and should stimulate many different types of thinking, including critical thinking, creative thinking, cross-cultural understanding, communication, and collaboration (Trilling and Hood, 2001, quoted by Wegerif, op.cit.). The use of computers has vastly expanded the range of materials and opportunities which can be routinely included in a child's learning programme. As Norhayati and Siew (2004)put it:

> 'In the context of education, interactive multimedia is defined by three criteria: (1) Interactive multimedia is any package of materials that includes some combination of texts, graphics, still images, animation, video and audio; (2) The materials are packaged, integrated and linked together in some way that offer users the ability to browse, navigate and analyze the materials through various searching and indexing features as well as the capacity to annotate or personalize the materials; and (3) Interactive multimedia is always "reader-centered". In interactive multimedia, the reader controls the experience of reading the material by selecting among multiple choices, choosing unique paths and sequences through the materials.' (p 148).

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[1] The materials can be inspected at http://www.jubileecentre.ac.uk/userfiles/jubileecentre/pdf/projects/development-projects/My_Chracter_spreads.pdf and are described more fully in other papers relating to the My Character Project.

Motivation is a key issue in any learning and therefore teachers should try to ensure that computer-based activities have a purpose with which students can identify and which arouse positive affective responses. Computers may be able to overcome obstacles in the way of learning for some students, or increase engagement in others because of the 'motivating interactivity' which computers can generate (Wegerif and Dawes, 2004). On the other hand, a computer-based learning package can lack the enrichment and human interaction that comes with good classroom-based teaching orchestrated by a good teacher.

In the case of the current project, where the nature of the thinking to be encouraged is, ideally speaking, reflective, personal, creative, critical and deep, the capacity of the computer to enable students more easily and quickly to proceed from draft to polished writing and from shallow to deeper thinking may result both in more enjoyment by students and better quality thinking leading to enhanced attainment. Somekh (op. cit.) points out that computer-based learning can create a culture which is freer and less intense, in which teachers' supervisory responsibilities are reduced because children take more responsibility for their own learning and it becomes possible for teachers to engage in one-to-one discussion with individual children to take their thinking forward (p26). In this way, the culture of the classroom can be transformed in support of more autonomous learning by students. As far as the My Character project is concerned, this culture shift would be entirely consistent with an approach that asks students to be more personally reflective with less emphasis placed on plenary classroom activities and more on personal exploration.

It is probably fair to say that moral or character education is not as advanced or as well supplied by new technology as most other 'subjects'. Nonetheless, some attempts have been made in recent years to explore the potential of computer-aided learning in this important area. For example, Norhayati and Siew (op.cit.) developed a set of character-based stories for use in Malaysian schools. By making the presentation of the stories interactive and using not only text but also graphics, audio, video and animation, the stories were designed to be more appealing and more accessible to a wide range of students. Further, this project added other supportive elements to the story content, including a reading support section, a section which contained multimedia explanations of words in the stories and a final 'knowledge test' section which also contained two kinds of game and a story-creating activity. Students were able to access these different section at will, according to need or interest.

In the UK, Wegerif and Dawes (op.cit.) explored the use of branching problem-solving moral stories to increase primary pupils' moral thinking and discussion skills. It was found that the computers could be used in a highly structured way, with small groups of students being required to discuss problems together before entering their agreed choice into the computer. The results indicated that, once the pupils had been offered some training in discussion techniques and had mastered their ground rules, the results were that the quality of pupil talk was significantly improved.

Given the above, the developers of the My Character project decided to develop the project materials experimentally, using on the one hand, a specially designed pen-and-paper journal and, on the other hand, a computer-based version, enabling students to choose their own unique paths through the material and to access specially selected enrichment material, such as film excerpts, through embedded hyperlinks. Research questions therefore included the issue of whether the web-based version would increase student motivation, enhance the learning and improve the quality of written outcomes, particularly the passages of personal reflection.

New technology versus old in practice

In response to questioning, many of the students expressed the view that the online version of My Character was the better version. Such judgements were of an intuitive kind, however, since none of the students, so far as I'm aware, had sampled both versions. There is perhaps here, a sense that computer-based material is automatically more modern, or 'cool'. There were certainly many features of the online version that students liked. For example, one student enjoyed the fact that the online version could be easily customised:

Student: I liked customising it. You could set it with a picture if you had one you liked, to come up on the homescreen of My Character. And there were also bits like the quotes of famous people that could help raise your self-esteem as well.
Interviewer: Did that help you do the work better?
Student: It made it more personal and more, like, it's yours rather than someone set you this and you *have* to do it for classwork or homework. [Y9]

This was a very popular feature and, certainly for some students, increased the feeling that the focus was a personal and reflective one. And the ability to work at one's own pace also helped:

"Someone next to you could be on something different because they work faster or slower than you. So there was no rush to get anything done quickly" [Y8]

This is obviously advantageous for a teaching programme whose principal focus is on generating deep, reflective thought. The fact that the teacher was less likely to take the work and read it also gave an increased sense of freedom.

"You can work more freely online because it's not so easy for the teachers to have a look at what you've put about yourself." [Y8]

Another popular feature was that the students were able to access videos and multi-media with ease whenever they wanted to:

Student: "The online version lets you put pictures on your profile which you can't do on a book and you can straight away do a PowerPoint without having to wait. We also got to watch videos.
Interviewer: Yourself, or as a class?
Student: We watched these as a class but if we forgot something we could go back and watch it again on the computer. [Y8]

The advantages of having personalised access to the media elements of the package are obvious but the teacher of this student had obviously decided that an introductory discussion of each theme would be beneficial, presumably to assist and enrich the learning with some discussion and probably to increase motivation before the students were asked to work at their own pace through the material. This semi-mediated approach would have provided some variety to the pattern of lessons, which can reduce the possibility of student boredom and loss of momentum which may result from going through precisely the same routine every lesson with no external stimulus from the teacher.

Several students mentioned the fact that the online version seemed less daunting than the journal version because the book provided large areas of blank space for the completion of answers and this was rather intimidating. On the computers, answers were typed into relatively small boxes which could expand to accommodate fuller answers if needed.

However, the fact that a learning package comes in an online version is no automatic guarantee of success. The material ideally needs to be well pitched, varied in approach and differentiated in some way to cater for a wide ability range of pupils. One teacher commented:

> "Both the book and the online version had a lot of repetition in them. And, I must admit, sometimes they struggled with accessibility levels."

A second teacher suggested that to improve accessibility the online version could have had a 'hover' facility allowing students to access a dictionary by placing the cursor over a difficult word, a supportive device used by Norhayati and Siew (see above).

The use of technology, of course, can bring technical or logistical problems, for example, where there is limited access to the computers. In one school, where the project material was being used in registration time, which was 35 minutes long, the students, whose form room had no computers, had to descend two floors to the library area before they could log in which gave them little more than 15 minutes per session actually working on the material. One student who had quite enjoyed the project thought that the setting and the restricted time had, at least for him, reduced the level of engagement and undermined the impact of the project.

On top of this, several students had difficulty logging into the site and this had wasted significant amounts of time which was frustrating for them and time-consuming for the teachers involved. These login problems were largely resolved as the project progressed but the issue of the reliability and accessibility of the technology is one which has to borne in mind when deciding whether to utilise a learning program in an online format. In another school, the project material was accessed online by a PSHE group but since the classroom was equipped with only eight computers, students were asked to do the work on their own at the side of the classroom whilst the majority of the form studied issues based on the theme of the family. The teacher was pleased that there was an element of overlap between the two themes, but it did mean that students using the computer-based material had little teacher mediation of the My Character material.

One disadvantage of the online version was that, at the end of the project, students were not able to take it home with them, as they could with their completed journals. Not all students wanted to, naturally, but many took the book home and were able to keep it for reference. As one student put it:

> "I preferred doing the book. It's always kind of with you and you've kind of written it down. It's a bit different. There is space to draw things and read things and I don't think it would be quite the same on a computer. You could personalise your own page at the front." [Y9]

And another student commented on the positive value of writing down her thoughts on paper:

> "I think that puts it in your mind because you've actually written it down so it sticks in your mind easier than just thinking, 'Oh yeah, I'll do this.' Writing it down definitely helps."

Discussion and conclusion

The My Character Project has undertaken an interesting pedagogical experiment by creating parallel online and paper-based versions of the material. From the point of view of the learners, key questions will include whether a computer-based version of the project enables students to achieve deeper or more personal levels of reflection because of the private nature of the technology. Were students more motivated or stimulated by the online version? Given students' familiarity with online sites and with social media, is this a more natural way for them to think about values and character?

By comparison, are there advantages in sticking with the old technology? What does a book or personal journal in paper form offer that an online version cannot? My own thoughts on these issues are based on experience as a teacher and curriculum developer without any detailed data from the project comparing the quality of online versus paper-based responses. Experimentally, this would have been quite difficult to gather and would probably have involved asking the same students to use both formats and then comparing the quality of their responses. In the current experiment classes used either one or the other format and had different teachers so comparisons of quality are difficult to make.

What emerged from my discussions with the students was that there were advantages and disadvantages to both formats. There were students who really enjoyed doing the project irrespective of the format. The personal and relatively private nature of the online version was appreciated by some students who suggested that their reflective writing felt freer with less direct teacher supervision. Many students enjoyed personalising the computer version and appreciated the ready access to the media-based material. Being able to repeatedly view a clip of, e.g., Martin Luther King's 'I have a dream' speech means that one can get more from it and this should enhance the learning. However, if an online version is to be used, considerable thought probably needs to be given as to how to provide built-in differentiation if weaker students are not to become discouraged.

Personalised learning programs have the disadvantage of making class discussion of issues more difficult and, given the particular values focus of the project, this is arguably a disadvantage. Quite a lot of material in this project asks students to consider how a series of abstract values play out in their own and other people's lives. Many students in Key Stage 3, and indeed in Key Stage 4, find abstract thinking of this kind challenging. As we noted in the discussion on personal reflection in this series, students said that they found it helpful to hear what other students thought before committing their own thoughts to paper and, as Wegerif and Dawes found (op.cit.), some discussion of an issue before entering answers onto the computer can significantly enhance students' thinking. I suspect this is why some teachers preferred not to use the online version without an element of mediation and teacher-imposed structure. This would help teachers assess the extent to which a topic has engaged students and the good teacher, in handling a class discussion, will try to find ways of asking all students to contribute in some way. This accepts the reality that not all students find work of this kind either easy or self-evidently valuable. Furthermore, in one class, where eight students at a time were asked to work online completely independently (whilst other students carried on with the main PSHE topic) some students reported that on finding the material rather daunting, they had become distracted by some of the 'bells and whistles' of the online version and were able to waste a lot of time on e.g. personalising the site repeatedly whilst still apparently remaining 'on task'.

On the other hand, what was the experience of students using the paper-based journals? Students were reportedly very excited at being given their own My Character journal which they could make their own and keep. They were impressed with the quality of the product and this certainly raised the bar of expectation

and motivation. Many students who had completed the project wanted to take the book home to keep. One advantage is that it contains a record of what they were thinking at the time about a range of interesting and worthwhile issues and, as students mature, they will come to see new depths in many of the inspirational quotations used. Though personalisation of the journal may be less sophisticated than with the online version, it is not impossible. One teacher put it like this,

> "There are swings and roundabouts. I personally am a bit old school and so I like the book because I'm a firm believer in being able to flick through very quickly and write on the front cover, or the back, and make that your work in progress. I'd say 'On the inside cover, or the back cover, I want you to put your favourite quotation, or the things that make you the happiest or the saddest."

There are, of course, issues of logistics and access where paper-based versions of the material have some advantages over a project which is heavily reliant on new technology. For one thing, most schools are still unable to provide every pupil with a computer all the time, though this may change with the advent of 'tablets'. We noted that some classes doing the online version had to ask students to move to another location in the school before accessing the project and this lost time which was already limited. Combined with this were technical problems associated with logging in which students found frustrating and, according to one student at least, had had the effect of reducing the material's impact.

In the end, deciding whether to deliver the project using the online version or using paper-based journals may come down to a choice between a teacher's preferred teaching style, perhaps combined with a realistic assessment of the needs of the learners in the light of the material's interest levels, accessibility and a careful consideration of the *kind of thinking* with which the teacher wants students to engage.

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