Engaging Students through ICTs:
A Multiliteracies Approach

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How can Information and Communications Technologies (ICTs) be utilized to both engage students and better prepare them to face the challenges they will meet in the world of work, social citizenship and family life? Engagement is often the easy part of the equation when working with ICTs, as teachers around the world report students' attraction to using this medium. Harnessing that engagement, developing a teaching and learning environment that genuinely prepares students for the future, and thinking critically about the direction technology is shaping our society and social relationships are challenges that we currently face in education.

"Rules of Engagement"

It can be helpful to think about engagement from three perspectives: technical, practical and critical. When students engage with ICTs at a ***technical level***, the learning focus is generally on how to use specific software and hardware - the technical possibilities. This is a necessary stage of engagement but alone will not prepare students for the challenge of living in an increasingly technologized world. A ***practical level*** of engagement adds another dimension to the use of ICTs as we appropriate its use to accomplish a particular purpose. Technical knowledge is applied when ICTs are used for practical intents such as: authoring and expression of ideas or feelings (e.g. publishing, presentation, visual imagery, music and sound effects); research and organization of information so that we can see relationships, make connections, predictions and recommendations; and communicating and collaborating with others. Schools are confidently moving forward by providing a broad range of opportunities for students to engage with ICTs at a practical level. However, it is only when we couple technical and practical engagement with a critical perspective that we genuinely prepare students for the future.

A ***critical level*** of engagement prepares students to "read the world" as well as "read the word." The New London Group (1996) coined the term "multiliteracies" to address a need for literacy learning—always inextricably connected to available technologies of the time—to acknowledge that new communications media are reshaping the way we use language. This goes hand in hand with broad changes in the world that are increasingly characterized by local diversity and global connectedness. If we are to prepare students so that they operate in the world in a "multiliterate" manner, we must provide them with opportunities to both express themselves and make sense of the world through multiple modes of communication (linguistic/textual, visual/graphical, musical/audio, spatial, gestural) sometimes all operating simultaneously.

A critical level of engagement also provides students with opportunities to develop their understandings about the way we construct and communicate information in our society, to learn how this might differ in other societies, and to gain control over such media themselves to the extent that they can make informed decisions about its use. We must teach students the language of design - principles that can be utilized to guide effective representation of a particular message - if students are to genuinely develop their facility to communicate with and "read" multimedia. At the critical level, students critique the effectiveness of the communication modes they have chosen to use, the appropriateness for particular audiences, and the content of the message that has actually been delivered.

Robin Williams (1994, 1998) provides budding authors in both print and multimedia mediums with 4 simple principles (contrast, repetition, alignment and proximity) to consider as they design their publications. These can be used as a starting point for critique as we encourage students to make creative judgments and evaluations of their own work and other communications they observe every day in the world. Being literate means seeing beyond the surface, being able to make meaning in more complex ways, drawing upon life experiences, context and knowledge of the world to make sense of what we see. A critical level of engagement must bring these

together so that ICTs are considered in terms of their role in human communication and effectiveness in message transmission.

From the Field

At Ascot Vale Primary School in Australia, a group of teachers have begun exploring the notion of multiliteracies through the use of animation with their students. After providing time for students to come to terms with the technical aspects of animation, teachers at Ascot Vale begin by asking what issues are important to students. Responses to date have centered on environmental concerns and global issues such as child poverty. Animation is essentially about well-constructed narrative so before harnessing the use of technology, students must draw on their understandings of the world to tease out ideas and establish a concept they want to develop.

Once a concept or idea is established, students are then assisted to devise the best way to communicate their concept to a particular audience. A script that accounts for dialogue, movement and sound effects is developed, followed by storyboarding of visual images that will be used. The creation of the animation set and props provides students with opportunities for individual expression and creativity. At this point the language of design assists students to critique their own and each other's work, thus increasing their ability to control and manipulate the media effectively. As students generally work in teams to construct animations, they develop skills in a broad range of organizational, time management, decision-making, communication and problem solving skills. There is a clear link between such skills and preparation for the world of work, citizenship and family life.

The Big Picture

This example is used in order to illustrate that what matters in terms of students' use of ICTs are the contexts: thinking and learning opportunities that teachers situate around such use. Students need opportunities to engage in rich tasks that enable them to simultaneously develop a broad range of skills, knowledge and understandings about their world. Being literate in a multiliteracies sense, means that students will draw on a range of knowledge and contexts from many disciplines, as well as on multiple modes of communication.

A bigger picture than a broad range of technical capacities must therefore determine what students do with ICTs. Ultimately, whether or not they can use PowerPoint, create a Web page or make an animation is irrelevant if we don't consider what human purpose is accomplished by doing so. In particular we must ask ourselves if such purposes are 'school purposes' that only have meaning in the context of the schooling, or whether such purposes have relevance and connection to life beyond the school.

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As teachers, we must also engage with ICTs at a critical level in terms of our pedagogy. This means examining the educational intention of the tasks we set our students. For example, are we aiming simply at a technical level of engagement or are we providing opportunities for critical engagement where students are encouraged to use higher order thinking and develop deep understandings? Do we encourage students to reflect on the content of their work, its relevance at a local and global level, as well as the appropriateness of the mode of communication they have used to exhibit what they know, understand and can do? We therefore must also examine our role in the design of the learning environment itself and how this impacts the social and learning relationships that develop in our classrooms.

Australian teachers, currently participating in a study on Technology and Educational Change, have found that their use of ICTs has changed as they focus more on issues of pedagogy than on the technology itself. This is not to discount the need to learn the technical. But significant change in student learning outcomes was not in evidence until change in pedagogy occurred. Early in the project, for example, the Internet was used for research during "Literacy Blocks" wherein students were asked to identify facts or summarize from Web sites. Although students found this more enjoyable than worksheets, academic outcomes were often limited to students copying or slightly modifying the information they found by putting it into their own words. Teachers identified 'regurgitation of information' as problematic and explored this issue further with students. They discovered that students felt that other authors had explained the information better than they could. This caused teachers to examine the way they presented tasks to students, to explore relevance, and to work out ways to make sure students' ideas, concepts and conclusions were valued in the framing of the task. Now teachers work to ensure that students apply information in some way and encourage the generation of new thinking and ideas.

The Whole Person

Use of ICTs to provide students with greater opportunities

for communication, collaboration, thinking and creativity also provides us with challenges in terms of authentic assessment. The Australian National Schools Network has recently launched a national Authentic Learning and Digital Portfolios project. Beginning with a focus on the whole person, school communities are clarifying what young people should know, understand and be able to do at particular stages of their education. They have conceived broad domains, such as "Effective Communicator," "Thinker and Learner," "Creator and Designer," "Problem Solver" etc., as cross-curricular goals that shift the focus of learning and assessment to the whole person. The use of digital portfolios, where evidence can be represented in multiple modes of communication, is being explored as a way of capturing a richer picture of individual students. The project aims to bring learning and assessment together with

- students having significant control in the construction of their portfolios;
- the portfolio structure providing opportunities for feedback, questioning and reflection;
- assessment moving to a more central part of the learning process, conducted *with* students rather than *on* them; and
- rich, authentic tasks providing evidence of learning in multiple domains.

Conclusion

Use of ICTs in these ways leads to change in both teaching and learning structures, which ensure that learning is meaningful for students, connected to their interests and understandings about the world, and caters to a range of learning styles and levels of intelligence. If we are to extract maximum benefit from ICTs, both in terms of engagement and learning, a futures oriented approach that prepares students to 'read' the world and communicate through multiple modes of communication is necessary preparation for functioning in an increasingly technologized society. As students become multiliterate, constructing meaning as they simultaneously draw on contextual, experiential and disciplinary knowledge they have developed about the world, they increase their ability to shape their own futures. Thoughtful, responsive and futures oriented teaching is a vital link in this process.

References and Further Reading

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