

VARGA, RAHAELA**The importance of enhancing critical thinking skill
of pre-service teachers**

The paper deals with the necessity of continuous work on the development of the critical thinking skill in higher education. More precisely, it aims to explain the context in which the need for teaching critical literacy to future teachers arises. The contemporary both professional and private challenges have been increased by the information and communication technology. Apart from being functionally literate teachers and students should improve the refined ability to read, write, research and communicate in a way that supports critical analysis, interpretation, processing and storing both print and non-print texts. In addition, the author discusses the possibilities of incorporating critical literacy in school curriculum, applying either implementation or teacher initiative, opting for the combination of the two (teacher competencies and governmental support). The initial teacher education must empower students not only to teach critical literacy to their own students, but also to keep developing their critical thinking skill.

INTRODUCTION

Literacy has traditionally been described as the ability to read and write (Merriam-Webster's Learner's Online Dictionary) and it has always served some social purpose. Due to the ongoing social changes, the face of literacy has been changing as well. *"The demand for some new literacy has been announced by the process of internetization"* (Previšić 2002, p.59). Undoubtedly, to be literate in contemporary society means possessing a greater scope of skills compared to the past centuries. For instance, in the past it was enough to be able to sign one's name without knowing how to read or write. Later on, to be considered literate, one had to know how to read and write in Latin, without the same ability in a secular language. For a long time, literacy was a privilege of the clerics and wealthy citizens (Munjiza 2009). The ability to read was not necessarily accompanied by the ability to write. Gellner (1983) points out that a Swedish law of 17th century successfully made almost all of the population skilful readers in a hundred years time, yet till the 19th century many Swedes, especially women, could not write. It took four centuries after the invention of the printing press to make the majority of Europeans literate, because the reading materials did not become affordable before the industrial revolution. A technological revolution that we are witnessing nowadays also affects the traditional understanding of literacy. There is a need for the kind

of literacy that would improve global communication, but also improve individuals by making them self-actualised and more active citizens.

How should this new kind of literacy be achieved? In the search for an answer to this question all eyes are on school, since school has a dominant role in the process of educating citizens and is perceived as the primary and central place for becoming literate. New literacy requires a “new” way of thinking. Notar and Padgett (2010) express doubt that there is anything new about the newly proclaimed need to „think outside the box“. The discussion provides solid arguments that the expression just stands for what was known as critical thinking, creativity, innovation. They end with the fact that if there is a box to think within, then accidental learning would never existed. In addition, Warshauer (2000) concludes that regardless of the technology-related skill, there is still the need for critical, active, and interpretative reading, which has been an important part of print literacy as well. This paper aims to find out whether the face of literacy has changed so dramatically that it calls for a re-definition of literacy. More precisely, if there are some newly emerged literacies, how should our schools respond to that?

POSTMODERNIST LEGACY

A complex set of reactions to modern philosophy and its presuppositions is condensed under the name of postmodernism. Slattery (1997, p. 4) states that postmodernist philosophies have articulated the following concepts: “*the death of the subject, the repudiation of depth models of reality, the rejection of grand narratives or universal explanations of history, the illusion of the transparency of language, the impossibility of any final meaning (...), the failure of pure reason to understand the world, (...) the end of a belief in progress as a natural and neutral panacea.*”

Historically speaking, it appeared on a cultural scene after the First World War, developed after the Second World War and reigned supreme throughout 1980s and 1990s. The postmodern movement in art, architecture, philosophy, and literary theory in those decades emphasized eclecticism, deconstruction (a process different from destruction) and multiple forms of representation. Humanity began to resist and struggle with the modern world view, developing a new cosmology that recognizes the limitations of the modern totalitarian beliefs and embraces postmodern relativity. “*The core of postmodernism is the doubt that any method or theory, discourse or genre, tradition or novelty, has a universal and general claim as the ‘right’ or privileged form of authoritative knowledge*” (Richardson 1994, p. 517).

Postmodernism is itself understood in multiple ways and must not be mistaken for a theory that reflects an agreement on substantive doctrines. It is not surprising

then that it represents a celebration of difference and multiplicity. The concepts that used to be taken for granted are now becoming re-analysed and their understanding depends on the multiple explanations, approaches and personalised perspectives. A similar process has affected our understanding of the term literacy. Postmodernism has established various concepts of literacy, creating a new coin – new literacy, also used in plural due to the multiple understandings of the term. According to Lankshear and Knobel (2003), there are two streams of scientific research that focus on the different approaches to new literacy.

First, there is a field of the New Literacy Studies (*Street 2003*), which represents a new tradition in concerning the nature of literacy, trying to understand literacy as a social practice. It does not dwell on the acquisition of skills, as the dominant approaches, but recognises multiple literacies, varying according to time and space, and emphasises that the issues of text, power and identity must also be taken into account. Researchers of the New Literacy criticise the assumption that literacy is a neutral autonomous occurrence that undoubtedly has positive effects on other social and cognitive practices. In other words, they argue that literacy does not automatically make people better and smarter citizens, and that such approach fails to recognize the cultural background of the illiteracy, presenting western conceptions of literacy as something universal. The same author therefore suggests the so-called ideological model of literacy, which offers a more culturally sensitive view on this phenomenon. There is not one literacy but there are various literacies, and teachers must always be aware which and whose literacy they are promoting in the classroom.

Another approach to multiple literacies tries to detect the new features of literacy which are mostly caused by the rapid technological progress, especially in computer science. This has a certain impact on social behaviour patterns and consequently calls for a more adequate face of literacy suited for the contemporary society. The definition of literacy must be broadened with many other skills, along with the updated perception of reading and writing. As a result, we talk about multimedia literacy, computer literacy, information literacy or technology literacy (*Kress 2003*). Selber (2004) claims that multiliteracies should be understood as an umbrella term for functional literacy, critical literacy and rhetorical literacy. Applied to computer literacy, functional literacy would mean that computers represent a tool and students are able to use them effectively. Critical literacy sees computers as cultural artefacts and students are informed questioners of technology. Rhetorically literate students are reflective producers of technology using computers as a hypertext media. Computer literacy seems to dominate our educational concerns. Nonetheless, the trap of focusing more on the technological issues instead of literacy issues must be avoided.

DIGIMODERNISM

It is believed that postmodern theoretical glasses for the perception of the world are no longer suitable in the contemporary societies. Numerous aspects of life in western societies are highly influenced by the development of information and communication technology. Therefore, Kirby (2009) believes that a new cultural paradigm is on stage and he names it digimodernism (digital + modernism). Digimodernism is a direct consequence of the impact of computerisation on all forms of art, culture and textuality. It has revolutionised traditional arts, invented new cultural relationships, and slowly engulfed the textual world we live in.

Its effect on literacy is best observed on the Internet, where it represents a significant change in the nature of the text itself, seen vividly in the platforms of Web 2.0. Here, the digimodernist text permits the reader or viewer to intervene textually, physically to make text, to add visible content or tangibly shape narrative development. Web 2.0 is defined by O'Reilly (2006) as a perceived second generation of Web-based services which are characterised by open communication, decentralisation of authority, freedom to share and re-use, user's ownership of data and an effectiveness of communication that develops proportionally as more people use them. In other words, it allows users to learn and contribute to Web 2.0, unlike Web 1.0, which offered information only. The most popular examples of interactive online communication are Facebook, Twitter, MySpace, blogs, chat rooms, forums, message boards, Wikipedia, etc.

Because of the new technology, new literacy skills are being developed. Lunsford (2008) argues that we are experiencing a literacy revolution based on the fact that we write far more than any generation before us. Never before had we approached the Ancient Greek ideal of democracy so closely though conversational and public writing. Namely, it is becoming increasingly important to assess one's audience and adapt the tone and technique in order to get the message across as intended. Indeed, for the new generation of college students, writing makes sense only when it is about persuading, organising and debating. Online communication teaches them to deploy the kind of concision that lacked the previous generations and at the same time the Internet is full of lengthy comments on current social and political affairs. According to Schultz von Thun (2001), precisely the willingness to be informed and the ability to create information are the prerequisites for democracy.

On the other hand, Williams (2006) warns that participation in Web 2.0 can be simply a celebration of self, a narcissistic infatuation. The dilemma is that there is a lot of information that individuals in an informed democracy need to know, without realising that they need to know it. If their online activity comes down to looking for information they like and agree with, they will never pay attention to

the opposing attitudes and contrary world view that could make them reconsider their beliefs, and thus learn. Adding to that, the issue of power is very important. The general assumption, that power is accompanied by a level of responsibility, and unless the responsibility is felt and active, the possession of power becomes untenable, is not applicable to Web 2.0. Here responsibility can be abused without the loss of power, and as a result, fiction can parade as fact. So, given that participation in electronic democracy is freely available, and there is no system of checks and balances on the power that is derived from participation, a question arises as to the development of responsibility in the context of education. Because there is a vast amount of online information, students need to develop not only skills how to find the necessary and valid pieces of information but also the skills to deal with them. The latter illustrates a crucial role of critical literacy in contemporary education.

CRITICAL LITERACY IN THE EDUCATIONAL CONTEXT

The use of computers in technology classrooms does not imply more effective teaching of literacy. To illustrate this point, Kramarski and Feldman (2000) have discovered that the Internet environment contributes to student motivation, but not to reading comprehension and metacognitive awareness. This means that students should not be taught just technical knowledge and skills how to use computers, but also refined reading, writing, research and communicating ability that includes critical analysis, interpretation, processing and storing both print and non-print text. Chun (2009) adds that a multiliteracies pedagogy fosters students' critical awareness of multimodal texts by using students' own resources. The development of literacy and critical literacy need not be independent of each other. In fact, they are mutually constitutive in a classroom that emphasises the need to read the world.

Critical media literacy (*Kellner* 1998) thus involves developing conceptions of interpretation and criticism. Engaging in assessment and evaluation of media texts is particularly challenging and entails careful discussion of specific moral, pedagogical, political, or aesthetic criteria of critique. Critical media literacy not only teaches students to learn from media, to resist media manipulation, and to use media materials in constructive ways, but it is concerned with developing skills that will help create good citizens and that will make them more motivated and competent participants in social life. In short, the critically literate students ask themselves the following questions while reading either traditional or digimodernist texts: What is the (hidden) message? What are the arguments for that? Why the chosen media/type of a document? Who is the target audience? What techniques are being employed to convey the message? What purpose does this serve?, etc.

Williams (2009) stresses that teaching critical literacy should result in a more strongly developed sense of moral responsibility. The development of personal responsibility for Baumann (1993) represents an extension of postmodern relativity in ethics (listening to one's own consciousness as opposed to Kant's categorical imperative). According to Rodesiler (2010), classroom practice should empower students to ask questions, provide opportunities for exploring text messages and introduce meta-language necessary for discussion (e.g. non-verbal communication, representation, selection). But how should critical literacy be taught? Different educational systems provide different answers to this question.

Croatian National Curriculum Framework (2010) represents the initial step in a process of changing the understanding of literacy within school curricula. Firm boundaries between school subjects are to be blurred by the introduction of cross – curricular themes. The goals of two such themes, Learning to learn and Use of information & communication technology, are highly corresponded with the goals of critical literacy: “Students will differentiate between facts and opinions; be able to ask substantial and problem-related questions, search for and validate the information from various sources (dictionaries, maps, encyclopaedia, Internet, etc.); acquire skills to cooperate, discuss certain topics and issues, and come to solutions (...); be able to apply their knowledge and skills in different situations, take over the responsibility for their own learning and achievements (NCF, Learning to learn, p. 25); and be able to present data in a clear, logical, concise and precise way; use effectively information and communication technology; develop awareness of the consequences of the use of technology; develop critical attitude regarding the validity and reliability of the available information and the legislative and ethical principles of interactive usage of technologies in an information society (NCF, Use of information & communication technology, p. 26). In order to reform our educational system, these goals should be implemented in each school curriculum and achieved on a classroom level.

Unfortunately, the countries that have a longer tradition of teaching cross-curricular themes than Croatia report many difficulties in the process. For example, Harris (2008) states that in the UK such approach have not resulted in increased level of literacy due to the observed conflicting government instructions for implementation coupled with an ever-increasing emphasis on performance measures that create a school culture which leaves teacher little time for the cross-curricular collaboration necessary to make impact on student learning. Furthermore, the collaboration of teachers is impeded by the subject-related differences and teachers' different views on the priorities that need to be taught, which causes divergent messages and approaches, making it difficult for students to make transference between subjects.

Similarly, Finger and Houguet (2009) detect many intrinsic and extrinsic chal-

lenges identified by teachers themselves during their attempts at the implementation of technology education. Intrinsic challenges refer to challenges that teachers may face on a personal level, such as professional knowledge and understanding of new literacy, a level of professional confidence, attitudes toward technology education, flexibility to modify teaching approaches and participation in curriculum construction instead of implementation. Extrinsic challenges for teachers are environmental factors, such as insufficient resources and time, the need to find suitable methods for student assessment and the lack of history and (theoretical and practical) tradition. It is evident that the quality of teaching new literacies, including critical literacy, directly depends on the immediate work of teachers, i.e. their competences.

IMPLICATIONS FOR TEACHER EDUCATION

Individuals in the contemporary world must become critically literate in order to be active citizens who make their choices responsibly. This applies both to students, and their teachers. Apart from implementation of critical literacy through educational legislative (top-down strategies), much can be done during the initial education of teachers. Studies of the implementation of technology in the schools (e.g. *Cradler 1999; Robertson 2002; Cradler, Freeman, Cradler, and McNabb 2002*) reveal that without adequate teaching training and technology policy, the results of introducing computers and new media into education remain highly ambiguous. Technology itself does not necessarily improve teaching and learning and without proper resources, pedagogy, and educational practices, technology might be an obstacle to genuine learning.

So far the national approaches to technology education have not proved to be sustainably successful (*Lowther 2004*). Perhaps the reason for this lies in the fact that the existing school curricula for the Generation Y students have been designed by older generations. Generation Y is defined as a generation of young people who are born in the 1980's and 1990's, and present the first generation that has been immersed in technology all their lives (*Yerbury 2010*). They are also referred to as 'digital natives' (*Bennet, Maton and Kervin 2008*), as opposed to other generations who are 'digital immigrants'. Preservice teachers that are about to enter work market are digital natives, who are believed to naturally possess the functional computer literacy.

However, critical literacy does not develop spontaneously. This is why teacher training colleges should be developing their students' critical literacy so that they could become role models for their future school students in that respect. This process should start by making them aware of the importance of critical literacy for their personal and professional development (*Tan and Guo 2009*), and

they themselves must become critical thinkers sensitive to cultural differences in literacy. Additionally, instruction in teaching strategies for critical reading and writing skills should follow (*Steel, Meredith and Temple 1998*). Consequently, more adequate forms of representation and assessment must be made acceptable.

Teaching critical literacy can be organised in several ways. Firstly, critical literacy can be taught as a separate course, with the obvious shortcoming of being disconnected from the contents of other courses. It can also be integrated in an already existing course (e.g. ICT, literature, foreign languages, etc.) and linked to the themes and issues of a particular course. Finally, critical literacy can be taught as a cross-curricular theme, in several or all university courses, which possibly represents the most exhaustive and systematic approach but also the most challenging one. Such approach requires constant collaboration of university teachers who should share the pedagogic and subject-specific knowledge and professional attitudes and values. Most importantly, teachers of critical literacy must be willing to continuously learn together with their students since literacy has become an essentially dynamic construct that one is always developing towards and never achieving.

CONCLUSION

Within the field of literacy research, there is an increasing recognition that the advent of information and communication technology necessitates a broader conception of literacy. A new definition of literacy is required to encompass not just the traditional literacy, such as the ability to read and write, but also multiple literacies related to multimedia technology. The concept of multiliteracies is embedded in postmodern philosophy of relativism, and coupled with digimodernist world view can be divided into functional literacy, critical literacy and rhetorical literacy. This paper focused on critical literacy in educational context. The contemporary educational system in Croatia has started to acknowledge an increasing importance of critical literacy, as it is evident from the National Curriculum Framework. It implies certain changes in teacher education as well. The role of teacher training colleges is two-sided. In addition to teaching prospective teachers how to think critically, they should also teach them how to teach critical literacy to their own students.

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