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EXPLORING CRITICAL THINKING SKILLS THROUGH AWARENESS OF DIGITAL LITERACY

Kairgaliyeva Tursynay
tursynai.k.s-97@mail.ru
4th year student in "Foreign Languages: Two Foreign Languages"
L.N.Gumilyov ENU, Astana, Kazakhstan
Scientific supervisor –R. Fl. Zhussupova

One of the basic forms of preparing to successful activity in informational society of the XXI century is the formation of critical thinking. This process is actual educational problem today.

Academic journals and the mass media have presented critical thinking skills as being essential for the growing workforce of the 21st century. Critical thinking skills have been also recognized as vital for students' academic success. Currently, there is a growing demand for superior critical thinking skills, problem solving, and negotiation skills as well as highly developed communicative competence (Gervey, Drout & Wang, 2009; Halpern, 2004; Zare & Moomala, 2013, Zare & Mukundan, 2015). Critical thinking skills have been identified as a logical, purposive deep thinking approach (Rudd, 2007) and/or as a doubtful or skeptical approach (Mason, 2007) employed in making decisions, mastering, concepts as well as solving problems.

The theme of our article is"Exploring critical thinking skills through awareness of digital literacy". Critical thinking requires active and interactive learning. School attendees learn many transferable skills while pursuing their studies.Criticalthinking for school students helps them analyze information in a way that may predict a desired outcome.Schools have recognized that there is a distinct advantage to teaching critical thinking to school students. Even our president Nursultan Nazarbayev once mentioned: "The principal task of the modern education system is training people that can *think critically* and are capable to steer in the information flows" In an age of technology, information changes so rapidly and is disseminated so fast that some form of mental analysis is required to sort through it all. Sources of knowledge on the Internet are not necessarily reliable, and they must be evaluated on an individual basis. Students who learn how to think critically will be able to do this in every aspect of their lives, from buying consumer products to choosing the right career path.If we want to develop critical thinking in our foreign language class, we need to include some specific lesson components into the lesson plan, in addition to traditional components of the lesson description such as prerequisites, instructional objectives, supporting activities, and assessment. This can be done by relying on the students' previous experience, by asking question for clarification in order to make the issue clearer, more accurate and precise, by comparing opinions, by identifying the underlying factors, etc. All this has an effect on the quality of arguments and thinking, thus becoming personal practice in using a foreign language and thinking critically at the same time.The best way to become a critical thinker is by engaging students in

subject, which means students need to be aware of digital literacy. By digital literacy students will come across different viewpoints, which students can draw on and refer to in order to demonstrate that whatever it is they want to say is an informed opinion, not one born out of lack of knowledge but out of a systematic academic investigation of a particular subject area or issue.

Critical thinking is the general term given to a wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, and evaluate arguments and truth claims; to discover and overcome personal preconceptions and biases; to formulate and present convincing reasons in support of conclusions; and to make reasonable, intelligent decisions about what to believe and what to do.

According to Michael Scriven and Richard Paul *critical thinking* is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.

In a seminal study on critical thinking and education, Edward Glaserdefines *critical thinking* as follows "The ability to think critically, as conceived in this volume, involves three things: (1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experiences, (2) knowledge of the methods of logical inquiry and reasoning, and (3) some skill in applying those methods. Critical thinking calls for a persistent effort to examine any belief or supposed form of knowledge in the light of the evidence that supports it and the further conclusions to which it tends. It also generally requires ability to recognize problems, to find workable means for meeting those problems, to gather and marshal pertinent information, to recognize unstated assumptions and values, to comprehend and use language with accuracy, clarity, and discrimination, to interpret data, to appraise evidence and evaluate arguments, to recognize the existence (or non-existence) of logical relationships between propositions, to draw warranted conclusions and generalizations, to put to test the conclusions and generalizations at which one arrives, to reconstruct one's patterns of beliefs on the basis of wider experience, and to render accurate judgments about specific things and qualities in everyday life.

According to William Graham Sumner *critical thinking* is "**...** the examination and test of propositions of any kind which are offered for acceptance, in order to find out whether they correspond to reality or not. The critical faculty is a product of education and training. It is a mental habit and power. It is a prime condition of human welfare that men and women should be trained in it. It is our only guarantee against delusion, deception, superstition, and misapprehension of us and our earthly circumstances. Education is good just so far as it produces well-developed critical faculty... A teacher of any subject, who insists on accuracy and a rational control of all processes and methods, and who holds everything open to unlimited verification and revision, is cultivating that method as a habit in the pupils. Men educated in it cannot be stampeded... They are slow to believe. They can hold things as possible or probable in all degrees, without certainty and without pain. They can wait for evidence and weigh evidence... They can resist appeals to their dearest prejudices. Education in the critical faculty is the only education of which it can be truly said that it makes good citizens**"**.

Critical thinking refers to the following:

1. awareness of a set of interrelated critical questions;
2. ability to ask and answer critical questions at appropriate times; and the
3. desire to actively use the critical questions.

Critical thinking is that mode of thinking about any subject, content, or problem in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it. Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities, as well as a commitment to overcome ones native egocentrism and sociocentrism.

Critical thinking is essentially a questioning, challenging approach to knowledge and perceived wisdom. It involves examining ideas andinformation from an objective position and then questioning this information in the light of our own values, attitudes and personal philosophy. It is essential that within the process of critical thinking the writer substantiates the stance they have taken by providing evidence about the issue they are discussing in such a way that their judgments are seen as secure and verified.

Digital literacy is an umbrella concept for important skill clusters whose names are often used as synonyms; their content, however, is not exactly the same. *ICT literacy* refers to a set of user skills that enable active participation in a society where services and cultural offerings are computer-supported and distributed on the internet. *Technological literacy* (previously called *computer literacy*) entails a deeper understanding of digital technology and comprises both user and technical computing skills. *Information literacy* focuses on one of the key aspects of our Knowledge Society: the ability to locate, identify, retrieve, process and use digital information optimally.[1] In this paper, we will employ the term *digital literacy* because it retains a close connection with other basic literacies (e.g. reading and writing, mathematical competence) that are integral parts of education.

UNESCO's *Information for All Programme*3 (IFAP) recognizes the considerable effort being invested by many international organizations in "measuring the information society", defining digital literacy as a life skill. UNESCO identifies indicators for the development of knowledge societies and integrates them with more established milestone systems for other important skill areas. In May 2007, the Education Council adopted conclusions on a coherent framework of 16 core indicators for monitoring progress towards the Lisbon objectives in education and training. There are many of them with direct relevance to digital literacy – *ICT skills, civic skills, learning to learn skills, participation of adults in lifelong learning*. High values in these targeted areas certainly require the development of digital competence. Other indicators also may involve ICT skills. For example, *cross-national mobility of students in higher education* is made possible through blended learning courses that involve travelling students staying in touch with the learning process of their peers at home. Professional development of teachers and trainers, another key indicator, is mostly achieved through blended or e-learning courses in which new methodological skills are acquired and then applied in the workplace. These examples illustrate the importance of digital literacy for the achievement of Information Society goals. Digital literacy is a life skill because it targets all areas of contemporary existence.

In seven out of the sixteen literacy indicators, digital literacy plays a central role. In the last century, the shift from the manufacture of goods to the provision of services has resulted in an economy based on information and knowledge. Computers substitute for workers who perform routine physical and cognitive tasks, but they complement workers who perform non-routine problem solving tasks. Modern organizations and companies have been facing *a restructuring of work*, which means flatter organizational structures, decentralized decision making, widely shared information, flexible work arrangements and collaboration in project teams. Companies applying these changes in organizational structures and business practices require new skills, as wells as an increased role of ICT in the work place for communication, information sharing, and simulation of business processes. Routine cognitive and manual tasks in the economy decline, and non-routine analytic and interactive tasks rise. Resulting *new hiring practices* demand workers with the ability to respond flexibly to complex problems, communicate effectively, manage information, work in teams, use technology, and produce new knowledge.

Critical thinking and digital literacy. It may sound strange to refer to critical thinking as a key digital literacy for the 21st century. Critical thinking as a concept has been around since the time of Socrates. However, in a world where access to information is abundant and constantly growing, but authority and reliability are increasingly questionable, critical thinking has become the key digital literacy that our students need in order to negotiate the complex networked world of user created content and digital information media.

Although many criticize the internet for enabling anyone to ''pollute our students' world of

information with their unsupported opinion and unsubstantiated facts, the reality is that 'information' has always and should always be questioned and questionable. History, which as we know is written by the victors, teaches us this lesson. Any dictatorship wishing to control a population looks first to control its access to news and information and second to recreate that information in the light of what they want people to believe. To claim that there can be any totally unbiased sources of news or information is at best naive and at worst disingenuous and even dangerous. So the internet's ability to allow anyone, not just unfettered access to information but also the ability to take part in creating and circulating that information has forced institutions to readdress the issue of 'authority' and what makes some information sources more reliable than others. Previously educational establishments were able to define authority within the walls of their library and use those walls to insulate young minds from that which could be of questionable authority. In recent years, however, educationalists have been forced to establish new methods of ascertaining the authority of online content which includes a range of techniques and measures to help students judge the veracity of web based content. However effective these techniques may be, none is as effective as a curious, open and critical mind.

It is important to consider how youths' literacy, learning, and identity practices are both shaped by and shape the interactions they have in online spaces (Jensen, 2003). Knowing this can also help educators understand, and cater to, the learning needs of students in regards to both on and offline environments. Learning to effectively use and adapt to technological innovations is a skill that will serve youths well in the 21st century (Black, 2009). One challenge for online readers lies in the composition of the webpage: Where does the reader first look on the screen and where does that lead him or her? (Rowsell & Burke, 2009).

Components of digital literacy are:

- Learning to learn, 'study skills' for a digital age, for which learning outcomes are often defined in terms of: reflection, action planning, self-evaluation, self-analysis, self-management (time, etc.).
- Academic practice (an alternative conceptualization of general learning skills), for which learning outcomes are often defined in terms of: comprehension, reading/apprehension, organization, analysis, synthesis, argumentation, problem solving, research, inquiry, academic writing.
- Information literacy, for which learning outcomes are often defined in terms of: identification, accession, organization, evaluation, interpretation, analysis, synthesis, application.
- Media literacy (also 'visual', 'graphic', 'audio', 'filmic' etc. literacy), for which learning outcomes are often defined in terms of critical reading and creative production.
- ICT/computer literacy, which is very variously defined, and often in terms of technologies that are already fading fro use, but some learning outcomes might include: keyboard skills, use of capture technologies, use of analysis tools, use of presentation tools, use of social tools, personalization, navigation, adaptivity, agility, confidence.

Some scholars in the field (of digital literacies) suggest that digital reading involves a different logic and set of practices governed by multimodality. In this context, multimodality is defined as an understanding of different modes of communication (visual, acoustic, spatial) working together without one being dominant. Students may use available designs in linguistic, gestural, visual, and spatial modes, and in turn redesign it however they see fit to make it more meaningful (Rowsell & Burke, 2009). Such a wide variety of digital media also has the advantage of catering to all types of learning styles and levels (struggling readers, ELL students, oral learners, visual learners, etc.). This designing process can be described as one that "transforms knowledge by producing new constructions and representations of reality" (The New London Group, 1996). Digital texts offer many ways for readers to experience the reading process. Furthermore, adolescents need a critical awareness of the semiotics of language, (i.e., language as design), which is essential to the critical understanding of the composition and production of digital texts (Rowsell & Burke, 2009). In a digital age, learners need to practice and experiment with different ways of enacting their identities, and adopt subject positions through different social technologies and media

(Beetham & Oliver, 2010). When reading online, a reader performs different "comprehending selves" when they read across online texts (Tierney, 2006). These selves represent the plural nature that reading online affords and demands (Wiszniewski & Coyne, 2002). Flexibility and purposively marshaling the comprehension strategies that accompany the stances of these various reading selves, readers become critics of the veracity of information online, aesthetes of sudden fiction and online poetry slams, searchers for the minutiae of media star trivia, and synthesizers and linkers of disparate people, information, and events (Hartman, Morsink, &Zheng). This pluralism is instrumental in helping students build not only comprehension skills, but critical thinking skills as well.

First, critical practices involve two generic components: analysis and evaluation. A critical orientation implies judging, comparing or evaluating on the basis of careful analysis.

Second, critical pedagogy and critical literacy engage students and teachers collaboratively in making explicit the socially constructed character of knowledge, language and literacy, and asking in whose interests particular 'knowledges' and textual practices are constructed, legitimated and given privileged status within education (Lankshear & Knobel, 2002).

With a drastic increase in the use of technology in the classroom, educators have seen a decline in the way students think critically about, and respond to, what is being read – most notably relating to new literacies. Children around the globe have 'entered an enduring and passionate love affair with the computer …. and educators must address the question of how the relationship between children and computers affects learning. Understanding this relationship will be crucial to our ability to shape the future (Papert, 1993). With the abundance of online information comes the need for students to critically evaluate the source and the author's intended message/viewpoint. It is vital that the students consider many questions while gathering information on line, such as: Where does the information come from? What is the author's intent? Who benefits from the publication of this information? Technological change always results in winners and losers. Without critically thinking about these questions, students may use the information they find out of context, or worse yet, copy directly from on-line sources. Issues of plagiarism are compounded where cyberpapers and digital resources abound. Students roam the Internet, often finding inappropriate content of suffering from information overload (Postman, 1993). Given the abundance of material on-line, students need to learn to slow down and think critically about what they find. Methods need to be put in place to gauge this critical understanding (see appendix A). At the same time, most schools (if not all) try to control what the students can access via the Internet (blocking sites deemed inappropriate). Access to the Internet outside of school does not offer this filtering. This lack of control ups the literacy ante, requiring that students learn to be critical consumers – to deconstruct messages, to identify bias, to ask whose voice is represented, whose is not, and to what end? (Dalton & Proctor, 2008). Critical consumers are also producers of their own messages, skillfully manipulating tools, text, and media with a heightened awareness of agency, audience, and purpose (Hobbs, 2006).

The experts agreed that critical thinking has six main components which are illustrated in the following table:

Table: Critical Thinking Cognitive Skills and Sub-Skills (Facione, 1990, p. 6)

Skills	**Sub-skills**
1. Interpretation	categorization, decoding significance, clarifying meaning
2. Analysis	examining ideas, identifying arguments, analyzing arguments
3. Evaluation	assessing claims, assessing arguments
4. Inference	querying evidence, conjecturing alternatives, drawing conclusions
5. Explanation	stating results, justifying procedures, presenting arguments
6. Self-regulation	self-examination, self-correction

Technological changes and advancements in today's society dictate that changes need to take place in the classroom as well. Traditionally, an English class has relied heavily on print based media. While this form of literature is still very important and should not be disregarded, it should

no longer be the main emphasis.

Bringing about these changes also requires that teachers have a strong knowledge base in regards to these new literacies and best methods needed to engage all students regardless of cultural background or skill/achievement level – teaching strategies need to be in place for ELL's, struggling students, high achievers, and students from all ethnic and economic backgrounds (a teacher can only teach what he or she knows well – this holds true with critical thinking and new literacies just as it does with math and science). The teacher also needs to believe that these new literacies are important and that there is a need for them to be an integral part of the modern classroom – if he or she places little or no value on new literacies, they won't be successfully taught and the students will not see learning about them as relevant/important in relation to their lives.

In many cases, teachers need strong support and training in order to successfully incorporate new literacies into their curriculum (he or she may not be aware of these technologies or specific aspects of the technologies) – some of this support may very well come from the students themselves. If teachers are not comfortable with new literacies, they will need to step out of the confines they are used to in order to use these literacies in ways that make connections to the lives of their students. The teachers must additionally have a strong understanding of popular culture (what the students are interested in) and ways to use pop culture and technology to engage the students.

Creating a more interactive, collaborative based learning environment will aid in allowing students to work with their peers as well as with the teacher. This type of atmosphere encourages students to immerse themselves deeper in their work, making it more personal (bringing in connections to their lives outside of school) as well as work and communicate with other students (the importance of teamwork and peer input). When the students work together collaboratively, they place themselves in the role of a teacher, enabling them to take more ownership of their learning.

It is vital that educators impart skills relevant to the current forms of technology, digital literacies, as well as the critical thinking skills necessary to successfully use and these forms of media. In conjunction, professional development needs to become much more of an ongoing reality in order to make sure teachers have the necessary skills to not only use these new technologies, but methods to teach and use them in ways that engage the students (incorporating aspects of student's lives, interests and experiences). In direct correlation, standards and assessment must reflect these new technologies and ways of thinking.

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2 Richard Paul and Linda Elder, The Miniature Guide to Critical Thinking: Concepts & Tools, 2006, p.4

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PODCASTING AS THE WAY OF RECREATING A FOREIGN LANGUAGE TEACHING

Kakimova Ainur

k.aynur.95@mail.ru

2[1st] year master student in "Foreign Languages: Two Foreign Languages"

L.N.Gumilyov ENU, Astana, Kazakhstan

Scientific supervisor – A.M.Abdykhalykova

In the century of technological progress English teachers have to look for new methods of