



Papers presented at the conference in English

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Acts of intergenerational transmission in Cypriot children's literature: Changes in a new challenging context

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The term literacy, thus the ability that was traditionally understood as the acquired knowledge and skills of reading and writing, appears frequently in educational literature. However, its definition as well as its importance is continually changing and evolving, especially in contemporary technologically advanced societies. In understanding the quality or state of being literate in the 21st century, it is important that the following essential aspects are considered equally: the enhanced role of technology, the ways and forms of communications, the nature and speed of information and last but not least the change in the composition of societies in the global world. Within this context, the role of education, formal, non-formal and informal, becomes highly important.

This is well recognised by the new educational curriculum developed for all subjects in Cyprus in 2011. The curriculum for literature, specifically, which is the focus of today's presentation recognises literature as an aesthetic means as well as an educational good. According to the New Curriculum for Literature, literature – including children's literature – signifies the specific linguistic and cultural physiognomy of a place, provides the students' active contribution in the learning process as a community of readers and interpreters and expands the horizons of their experiences and their sensitivities. In addition, it increases and improves their expression and the way they recognise aesthetic quality, it helps develop their imagination and their critical thinking. But most importantly it allows them to

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recognises reality in its multiple forms and adopt a critical stance towards personal and social matters (72). Since the New Curriculum adopts Critical Literary Literacy as its main method, it emphasises students' practice in reading multiple texts with a similar scope or theme, intertextual approach, analysis and interpretation of texts and finally encourages the transformation of the writing process and creation of textual meaning towards the creation of personal meaning and identity. Here, I will specifically be focusing on the ways literature can encourage students to adopt a critical stance towards social matters such as the way a people remembers a traumatic past, as happens in Cyprus about the events of 1974 as part of the ways in which they create personal and social meaning and develop their identities.

Literary Literacy and Memory

The motto "I don't forget" (Δεν ξεχνώ) underpinning curricular changes that became a permanent feature of school life and the Cypriot educational curriculum (Christou 286) as a result of the challenges in education since 1974 (Maratheftis 146) has a highly contested nature. "I don't forget" can also mean "I remember". However, in the forty years since 1974 what kind of memories are contained in this act of remembering that subsequent generations of Cypriots are asked to adopt without having any direct experiences and memories of what they are asked to remember? Where do these memories focus? Is it enough to remember without being able to recognise the impact of these memories on our present and future and on the ways we understand ourselves? How are these memories depicted through literary representations? How does literature for the young contribute in the transmission and reception of memories? How does literature create new definitions and practices of memory? All these are questions that need to be asked if we are to use literature in educational practice as part of both our particular historical and political circumstances but also as part of an educational system that recognises and encourages the development of international values, understanding and cooperation.

One of the most traumatic moments in the modern history of Cyprus, the invasion of 1974, stimulated the development of its literature for the young significantly. If Cypriot writers have created a particular literature of memory for young readers, they have done so because of and through the trauma of that conflict which reverberates in writing for the young throughout the decades since 1974. According to the New Curriculum for Literature the study of the tragic experience of a European

occupied country through representative literary texts which embody directly or indirectly the trauma of division provides many opportunities for productive and fruitful reflection. It recognizes more openly the local tragedy and transforms it into a universal matters related to the fate of peoples, human rights, the meaning of freedom and understanding and peaceful coexistence of cultures (75-76).

Significantly, however, although the New Curriculum recognises the importance of local literature that deals with the traumatic consequences of the invasion, this ambitious attempt has not as yet recognised the challenges related to memories that were mentioned above. The memories received by my generation have been associated to the challenge that Maratheftis describes. That is the effort of the educational system to impart values that often become evident and necessary after destructive conflicts, but remaining faithful to the preservation of national and cultural identity (Maratheftis 1992: 146). Christou recognises this national imaginary that maintains conflicting desires (286) as oversimplified in the purposes of the Cypriot educational system. Subsequently, the desire for return, which is part of this double imagination and intertwined with the act of remembering, represents an empty imagination, since the imagined community of a unified peaceful Cyprus remains a discursive utopia (302). As a result, peace education in Cyprus remains a highly ambiguous but at the same time challenging attempt.

Since children's literature is part of and exists in the frame of a set of interactions with the culture that inspires it, and at the same time has pedagogic and developmental functions, it often cannot position itself outside the set of cultural values and aims and so in some ways is subject to their constructions. It needs to be addressed, however, that within this frame of dynamic transactions, children's literature can also be the source of critical shift and transformations in culture and society. In this paper I will not only argue about the significance of children's literature in the New Curriculum for the purposes of peace education. Using examples from the body of Cypriot children's literature notably that which relates to the invasion and its consequences, serving the transmission of memories to subsequent generations of young readers, I show how in the forty years since the invasion Cypriot children's literature begins to show significant signs of transformation that relate to the purposes of critical literary literacy. Therefore, using an intertextual approach and analysis my paper focuses specifically on the ways Cypriot children's literature transmits traumatic memories and

discusses this intergenerational transmission of memories through the example of mother characters in several texts.

The mother figure in culture and children's literature

For second and third generation Cypriots, remembering cannot be separated from the images of grieving girls, women and most of all mothers that feature on posters and in campaigns, exhibitions and stories of the invasion (Figure 1.1). Since 1974 the Cypriot female experience of war and trauma has been transformed to produce icons that are used to promote the political project of ethnic survival (Figure 1.2). The mourning mother dressed in black has come to stand for the idea of the nation, ravaged by loss, while the lost places are frequently depicted as lost children.



Figure 1.1 Girls with photos of missing fathers and brothers. Photo downloaded from news247. The photo was supporting an article by Mika Kontourousi with the title “How “whispers” of the missing haunt Cyprus” [Πώς «οι ψίθυροι» των αγνοουμένων στοιχειώνουν την Κύπρο] published on July 20th 2014. <http://news247.gr/eidiseis/weekend-edition/mnhmes-poy-shmadeuoy-n-pws-oi-psithyroi-agnooy-menwn-stoixeiwnoyn-40-xronia-thn-kupro.2931739.html>

In Cypriot children's books that deal with trauma and memory, this use of mother figures has helped pass on memories of the invasion to subsequent generations

of children: since 1974 at least four school cohorts of children have been brought up on such stories. Today I will discuss intergenerational acts of transmission using five Cypriot children's literature books: Filissa Hadjihanna's *Happinesses and Sorrows* (1976), *Beyond the Barbwire* (1997) and *Marcos and I* (1991) by Hera Genakritou, Paraskevoula Pitsiri's *What does slavery mean?* (2008) and finally Sotiria Pyla's *Memories that hurt* (2004). Although full close readings cannot be provided here, I will focus on the relations between mother and daughter characters and on the role of mother characters in passing on to daughters attitudes associated with the social role of mothering. As I will show, in Cypriot children's books this role is associated with the intergenerational transmission of memories. I argue that Cypriot children's literature about war and trauma since 1974 uses mother-figures both to transmit memories of a traumatic past and to cultivate ideas about the future management of the nation in young readers. I do so by drawing on theoretical work relating to postmemory as the relationship of second generation to the previous generation's trauma, which is transmitted as "an experience" through stories, images, and behaviours that accompany the lives of survivors' children (Hirsch 5) and second-generation memory as the vicarious rather than direct experiences of the past arising from one's elders' remembered past (Ulanowicz 4).



Figure 1.2 Encyclopedia *Cyprus* Volume 1 Memories. Nicosia: Diagoras Publishers, 1987. Print. Photo by Zak Iakovides © Zak Iakovides

Since I focus on mother-daughter relations and the role of mother I also draw on existing theories about mother-daughter relationships, notably the work of Nancy Chodorow (1979) and Marianne Hirsch (1989), and their use in fiction. Marianne Hirsch (1989) focuses on nineteenth and twentieth century Euro-American women's writing mapping out how aspects of the critical work of literature as well as of theoretical thinking of the time began to adjust in ways that resulted in the creation of mother characters who could speak of their experiences and be heard. Unlike Hirsch, Chodorow focuses on real mothers mothering real children. Her main inquiry focuses on why and how women participate in reproducing the social role of mothering as something specific to females; to this end she questions the assumption that mothering is biologically determined. She argues that mothering as a social role specifically linked to women is intertwined with ideologies about women, the reproduction of masculinity and particular forms of labour power which lead to sexual inequality (11). She also shows that the model of caring associated with mothering is psychologically based, reproduced by individual women through social-structurally induced mechanisms and passed down intergenerationally (Miller-Day 92).

Teaching mothers

These points are illustrated by Filissa Hadjihanna's *Happinesses and Sorrows* (1977), one of the earliest texts discussed here. Narrative representations of women in this novel are faithful to the arguments raised by Chodorow regarding the reproduction of mothering as a social role. They also contribute to the reproduction of a national imagery around Cypriot women, which is closely aligned with a complicated image of women's submission. That is while the mother is portrayed as adopting a limiting and even damaging way of behaving, when this behaviour passes on to the daughter is recognised as a form of strength, stoicism and heroism. In addition to Chodorow's arguments this text shows that the reproduction of mothering is often a factor in the creation of postmemories and in the reproduction of an essentialist gender destiny. *Happinesses and Sorrows* is about refugee life and tells the story of ten-year old Georgoulla and her family during the first years after the invasion.

In the text mothering is reproduced as a condition of confinement while simultaneously a gendered form of memory is created. Evidence that the maternal role is being reproduced is seen when the daughter begins to follow her mother's example and to see her value as dependent upon serving her family and others. Georgoulla's own experiences are overwritten by those of her mother. As a consequence, Georgoulla is unable to generate her own story or to separate her destiny from that of her mother or other Cypriot women and mothers, while her mother continues to be suppressed by war and gender trauma.

Through the literary interactions between Maria and her daughter Georgoulla these motherly behaviours and characteristics are passed down intergenerationally and reproduced through the daughter (Figure 1.3). These interactions throughout the book signal the close relationship developed between mother and daughter and its impact on the daughter. The closeness of their relationship becomes the vehicle through which the role of mothering is being reproduced in the text. For instance, Georgoulla describes her mother as "my sweet Maria" (15) or "my gold mother" (35) and realises that "above herself [her mother] thought of her three children, and her husband. She was a Cypriot mother. She was a woman with self-denial" (40). The mother's self-denial, as someone who serves others above herself, as well as the way in which she endures the situations she experiences with silence and a kind of stoical strength and fortitude are recognised here as something positive and important as well as a necessary feature for being a mother of the nation. As a result, her role as a mother who also serves as mother of the nation is praised in the text through the narrator's description of Georgoulla's thoughts, showing that Georgoulla accepts it as part of her future. The phrase "she was a Cypriot mother" charges her maternal role with responsibility towards the nation and reproduces the kind of national imagery around Cypriot women. As a result Maria's role as a mother is ultimately depicted as heroic, despite or because of the oppression she experiences. As a result, as role model this mother is bound up with the old, pre-feminist world and the reproduction of mothering as an essentialist gender destiny. At the same time, what is recognised by the daughter as a heroic way of thinking and acting is for the mother part of her trauma, suffering and pain. Therefore, the way in which the role of mothering is transmitted and reproduced intergenerationally is also closely aligned with the kind of relationship that Hirsch defines as leading to the creation of postmemories.



Figure 1.3 From the book Χαρές και Λύπες [Happinesses and Sorrows]. Illustrations by Mimis Hadjihannas © Filissa Hadjihanna, 1981

Mother-symbols of the nation

Similarly to the previous text, narrative representations of mothers and daughters which are aligned with the national ideology of mothering also appear in two books by Hera Genakritou, *Beyond the Barbwire* (1997) and *Marcos and I* (1991). They illustrate well the symbolisms associated with mothering in Cyprus. Beginning from *Beyond the Barbwire* a powerful symbolic depiction of the mother appears in the story “Pentadaktylos’ Dance” from the book. The text revolves around the separation of Eleni, an enclaved girl, from her family. This occurs when she is required to attend school in the south. Because her mother is determined to continue living in their place of origin in the occupied area, the children of the family have had to be sent to school in the south for several years. Eleni, the youngest child, has witnessed all the previous separations. When her time comes she questions her mother’s attitude and decision. Her mother is shown performing the role of a mother of the nation. In the text this role cannot be separated from the creation and transmission of postmemories from mother to daughter.

This mother is central to the meaning of this text as well as to the daughter’s shaping of memories and experiences. She appears as a strong female personality. The decisions she takes have a strong impact on the members of her family. As a mother she does not appear in the traditional and limited role of the housewife who serves her children and husband. The way Eleni’s narration focuses on and describes her mother’s stance and attitude, behaviour and decisions as well as the interactions between them shows that the model of caring associated with mothering in this story relates to a

specific form of resistance. This is expressed through her decision to stay away from her children so as to hold to their memories and connections to their place of origin as a way of acting as a mother of the nation and resisting to the oppressive occupying regime. As a result, the strength with which she is imbued in the story, the matriarchal attitude she displays and her strong decisive personality are ultimately dependent upon the nation's broader anxieties.

Reinforced by national pressures, this version of mothering with its associations with strength, resistance, fortitude and patience, is transmitted intergenerationally and reproduced through the daughter in the form of postmemories. Therefore, the interactions between Eleni and her mother project on to Eleni as a mother to be, not only the ethical responsibilities associated with a traditional form of mothering but also the responsibility for the future management of memory. In particular, attention is focused on the mother as she constructs connections with her daughter in a conscious and symbolic way in order to create and transmit a relationship with the previous generation's past.

Through its effective use of the parallelism between the enclaved mother and the image of a tree, the text enacts the passing of postmemories, which links with a symbolic ability to connect with the past, to endure and remember. This ability is associated with women, especially mothers. The explanation provided by the mother for her decisions takes the form of a story as well as of a powerful image which is transmitted to Eleni as an experience rather than as a simple memory: "I stay, so that I can protect your roots. I'm the tree. You are my branches, for as far as they spread, their roots and life will remain here in this land; for now and ever and as long as I exist" (Genakritou 27). In this short story, the image of a mother as a tree encapsulates the whole complex network of associations and obligations around mothering that the text shows as important. Through this image Eleni experiences her mother's essentialist gender destiny of becoming part of the land and creating a powerful form of memory as her own. She identifies with the memory of her mother as the link who holds the intimate ties between land and her children and it teaches Eleni to accept her destiny as naturally connected to her roots. As a result, the maternal role is reproduced through Eleni in the form of postmemories that center on the symbolic connections between women and place. It also extends Chodorow's discussion of women's sense of self in relation to others by adding that they can also develop a sense of self in relation to place which is in turn extended through the way they become able to connect with others.

Central to the way Eleni experiences postmemory is the way she articulates these connections by affirming her mother's perspective. "Bless my mother who was so strong in heart and grew roots like a centuries old olive tree in the soil of our land in order to water our roots with care" (Genakritou 28). Eleni's articulation of what becomes a postmemory for her at the end of the story is part of how the text addresses its readers by serving as a second-generation memory for a subsequent generation of young readers. Eleni not only accepts her mother's perspective but also reproduces it through her narrative point of view. Her narration creates a vicarious experience of enclavement and consequent family separation as well as a memory of the traumas arising from the conditions of enclavement. By doing so, it aligns with national ideologies around mothering. The story reproduces dominant cultural beliefs and Eleni's mother is appropriated and reshaped to provide a visible symbol of the national and collective memory of trauma.

As happens with the previous book, Hera Genakritou's *Marcos and I* (1991), the kind of memory that it produces continues to be affected by collective narratives of trauma and reproduces the dominant ideologies in relation to messages about women. The story of the book is narrated from the perspective of adolescent Katerina in the form of a diary. It is a recollection of her childhood years with her teddy bear Marcos and of the letters she wrote to him when the bear was lost when they moved house. Katerina was born shortly after the war to a refugee family meaning that she belongs to the postmemory generation in Cyprus. Although Katerina did not experience the war as such, she experiences its trauma through her parents' and other adults' stories, behaviours, attitudes and ways of dealing with the consequences of war. One such case is her acquaintance with an elderly, refugee neighbour who lives in the neighbourhood to which her family has recently moved. The story features an indirectly motherly relation created between Katerina and this old lady.

This elderly lady, who Katerina calls grandma is a refugee herself and depicted in the text as a typical Cypriot grandma dressed in black with a scarf covering her head and white hair and wearing small glasses. She lives alone, surrounded by family photos in a small room in the corner of the neighbourhood. After the war her children immigrated to Australia and only come to visit very rarely. The distance separating her from her children and grandchildren becomes the source of her sadness, melancholy and nostalgia. Like Eleni's mother, Grandma Melpomeni takes on the role of the mother

of the nation in order to create the essential national ties between homeland and her children.

Grandma Melpomeni is depicted as a mother who puts her family and the nation before herself, considering the pain she experiences from being separated from her children less important than the need to create for them the bond and memory of their place. Highly symbolic and emotive language is used to denote the associations between mother, children and the nation. The mother is the anchor who holds onto the memories and ties of her children as they travel in strange seas and explore new lands. The anchor stands for fortitude and resistance: characteristics inherent to the national iconography of mothers. This role is transmitted to Katerina, and it is reproduced through her, since we view her taking on as her own responsibility to bring Grandma's children back and soothe her pain.

Towards a new generation of memory

Even though the need to remember is still strong in Cyprus and the figure of the mother continues to receive significant respect, some of the most recent texts in Cypriot children's literature have begun to show signs of a significant change. This takes the form of a more contemporary but still emerging generation of memory. In some more recent works narrative representations of mothering and the narrative interactions between mothers and daughters are being revised and renegotiated.

Paraskevoula Pitsiri's *What does slavery mean?* (2010), *Memories that hurt* (2004) by Sotiria Pyla and Makis Antonopoulos's *With sun's little dress* (2008) are examples of texts that explore new possibilities for the management of trauma and memory in Cyprus. *What does slavery mean?* is an autobiographical novel featuring a young girl named Vaggelitsa who experiences the overwhelming first moments of the invasion and becomes a refugee with her family.

Although the mother in *What does slavery mean?* appears in several of the book's scenes, her role is only secondary and not as important as in the other texts. The focus here is instead on the main character, Vaggelitsa, her daughter. Unlike the mothers in the two texts by Hera Genakritou, Vaggelitsa's mother lacks symbolic or heroic dimensions. She displays more human characteristics such as fear and weakness. She weeps and is clearly terrified by the news of the war. She shows none of the fortitude and strength to endure found in mothers in earlier invasion fiction. Instead of suppressing her feelings she is constantly expressing them.

Since the role of the mother and the literary interactions between mother and daughter are not so central and present in the story, the text does not depict any kind of intergenerational transmission of memories in the form of postmemories. Instead, it expresses and reiterates the daughter's personal memories as these were shaped by her own experiences of events and not as transmitted maternal experiences. This story is concerned with the articulation of the daughter's previously experienced memories, framed by new circumstances. Vaggelitsa, the author's alter ego in the story, is shown years after the invasion as a middle age mother with one daughter. Her life is obviously changed and her memories are now imbued in a new framework of experiences. Therefore the memories transmitted by the text are articulated from a new perspective which is different from the author's point of view as a child. The writing adopts the perspective of the mother writer addressing a new generation of readers.

As a result, this articulation of memories shows that the voice of the mother does not totally disappear in the text. It rather takes another form: that of the narrator's voice. The mother here appears in the writer's renewed expression of previously experienced memories as second-generation memories rather than in the form of a mother character that transmits postmemories to her daughter. This agrees with Ulanowicz's statement that children's literature is associated with the creation and transmission of second-generation memories not least because "it depends upon the reiteration and reinterpretation of previously articulated memories with respect to a new generation of readers" (11).

Sotiria Pyla's *Memories that hurt* (2004) is another text featuring this transformation of memories and centers on the life and experiences of the author's family before and after the invasion. The story is narrated by the oldest daughter of the family, Maria, revealing her family's traumatic uprooting. Of significant interest at this point is Maria's narration about her family's life after the invasion and especially the story "At Frenaros". The story features a mother-daughter relation which is related to the transmission of memories. The narrative structure of the story reflects characteristics of second generation memory as related to writing for children. "Reiteration" and "reinterpretation" of previously articulated memories, as characteristics of Ulanowicz's definition of second-generation memory, are evident in the use of narrative language which shows that memories are reframed by new experiences. The adult narrator's current experiences allow her to recognise the impact of her mother's previously articulated memories and experiences, to recollect them as

hurting and painful and to understand the impact of time and other life experiences on these memories.

In the chapter the narrator refers to her mother's experiences at Frenaros, when after the invasion she was sent to serve as a teacher. The narration begins by highlighting the suffering and headaches Maria's mother experienced as a result of her war trauma. In order to deal with her distressing thoughts and emotions, her mother found escape in knitting. As Maria explains, "in order to keep her thoughts away, she always held needles and wool and knit all the way to Frenaros. She made all our knitwear in the car" (translated from Pyla 76). This act is associated with characteristics of mothering, such as love and care described by Chodorow. Acts of love and care by this mother appear in other chapters of this book and include her cares to transform a new home for the family, her handmade creations for the house and her efforts to make her family happy. Nevertheless, the emphasis here is on her pain and suffering as a result of war trauma, rather than elevating her effort into a heroic form of martyrdom. Speaking to and for each other, mother and daughter make this suffering visible as a painful experience.

The mother's experiences and stories shared with her daughters continue to appear in the daughter's narration as she introduces specific incidents with young students which had a strong impact on her mother. One such case, which shows the reproduction of a particular model of mothering and the transmission of memories to the daughters, is the story of six-year old boy in Maria's mother's class whose mother was under medical care in the hospital for the mentally ill. The story of the boy endorses mothering behaviours to the daughters and encourages them to "adopt" him. "From that day I began asking my mother every day about Giorgos. We, the sisters often saved our pocket money, bought him chocolates and lollipops and sent them with Tota to him at school" (78). Clearly the role of mothering is reproduced through the daughters. This role is enacted very traditionally though the development of a sense of care and protection for the boy. Even though the role of mothering, as traditionally defined, is reproduced through the daughter characters, unlike the previous text here this role is not associated with the reproduction of a national image of women. Instead, the narration focuses on touching with respect and articulating the most sensitive aspects and life experiences of this individual mother. Although the pattern of mother-daughter connections remains similar between the two texts examined here its use in narrative changes. Where previously was used to transmit memories linked to the nation and the

symbolic image of the mother, in *Memories that Hurt* is used to transmit the experiences of an individual woman. The symbolic and heroic dimension of mothering is absent from this book. Characteristics of actual mothering passed on intergenerationally to the daughter characters through the mother's sharing of stories and experiences, are not used to reproduce characteristics of the mother of the nation. This change attests to new narrative and psychological perspectives that can be created through the literary interactions of mothers and daughters as they speak to and for each other (Hirsch 8).

Conclusions

This discussion attempted to show that Cypriot children's literature books about war and trauma often employ narrative representations of mothers that serve the transmission of memories. Significantly, however, the texts written in the last decade provide evidence indicating that significant change in Cypriot juvenile literature of the invasion is happening. This change involves a shift in the kind of memory passed on through literary representations of mothers. While Cypriot texts are now moving from a depiction of postmemories to a transmission of more contemporary articulated memories, fictional depictions and messages about Cypriot women are undergoing an equally important transformation.

If we need to develop a peace education project in our educational system that would help children understand and accept others and work together towards a peaceful coexistence, we need to begin from the ways we remember and the kind of memories we transmit to our children. We need to revise and reflect on these memories. Some Cypriot children's books have begun this process. This is only the beginning and a small part of the international children's literature that deals with similar topics. The introduction of such books in this project can be challenging and demanding but is also promising and intriguing. Including the intertextual analysis of such books in educational practice can contribute to the understanding of the ways in which we remember the past and how we can change these ways based on our contemporary context so as to promote a more conscious recognition of the impact of the past and its memory on the present of current generations of young readers.

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Changing the Ways: Promoting Reading for Pleasure of EFL Students at the University

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Changing the Ways: Promoting Reading for Pleasure of EFL Students at University

ABSTRACT

The study is aimed at the development of a love for reading fiction in students majoring in English and Education. Freshmen and sophomores participated in a specially designed “Pleasure Reading Program”. We investigated how learning-centered approach and active teaching/learning strategies used for designing and implementing a framework for extensive reading for pleasure may contribute to the enhancement of positive reading habits and attitudes, motivate and equip students for further reading for pleasure in a foreign language.

The study suggests that creating a reading-friendly environment rich in round-fiction activities enhances student autonomy and step-by-step fosters students developing into self-motivated lifelong readers.

The activities involving teachers, librarians and junior students included reading conferences, writing a dual-entry diary, vocabulary sharing sessions, book promotion presentations, reflective practices, open-questions discussions, short-story projects, reading recommendations for peers, etc.

The experimental students demonstrated evident improvement in their attitude to reading fiction for interest, enjoyment and learning.

Keywords: EFL, reading for pleasure, ERR-based Pleasure Reading Program

INTRODUCTION

Extensive individual reading of fiction has long been a requirement at Russian linguistics Universities. However, despite the availability of the growing amount of research on effective reading promotion teacher-centered methods of instruction still prevailing in Russian universities hardly make individual reading a sustainable reading promotion experience. Traditionally, the assignment with the specified obligatory amount of pages is given at the beginning of the semester and without any monitoring throughout the term is part of a credit test at the end of the semester. Traditional assessment procedure includes presenting an oral summary of the book and a written vocabulary list of unknown vocabulary items. It results in a student’s formal hectic preparation for the test before the appointed date, and, in worst cases (as was found out

in an anonymous survey of graduates), a student may read the book in the native language and present a summary found on the Internet or even borrow the notes from a senior student.

Another concern in this context is that, as surveys repeatedly show, outside the program many of the students limit themselves to reading on the Internet choosing to read mostly messages on social networking sites, blogs, etc., hopping from one website to another without much concentration or effort, mostly skimming and scanning. We witness a rapidly growing dominance of image. Multi-modal texts that commonly include sound and music, voices, intonation, stance, gesture, and movement, as well as a print and image have become readily available (Cremin, 2007). As a result, modern “multi-modal texts have changed the ways in which young people expect to read, the ways they think and the ways they construct meaning”(Bearne, 2003:98). It is disheartening to find out that there is a growing amount of relatively successful EFL students that do not engage themselves in reading for pleasure preferring to browse highlighted texts, watch movies and listen to music both in Russian and English.

The decrease in reading for pleasure among university students specializing in humanities is part of an acute social problem. According to the latest survey of WCIOM (Russian Public Opinion Research Center) the number of people reading for pleasure in the country where reading fiction was for a long time a common skill and activity continues to fall. 20 percent of Russians surveyed in 1996 never read fiction for pleasure, 2015 survey shows an alarming 35 percent.

To make extensive individual reading of fiction in a foreign language more efficient inside the curriculum and foster the importance of pleasure reading in the lives of young adults currently more educators in Russian linguistics universities give sufficient thought to promoting students’ independent reading. They try to examine the ways of establishing lifetime reading habits of students and explore methods and activities that may help engage students in pleasurable reading across the curriculum as well as support and develop them as lifelong readers.

The article describes the methodology of autonomy-supportive educational practices applicable to designing innovative competence-oriented ERR-based Pleasure Reading Programs (PRP) at university.

THEORETICAL BACKGROUND

The following theoretical background specifies the domains relevant to the proposed PRP: reading for pleasure vs. extensive reading in educational context; motivation for reading and the motivating role of a teacher.

Reading for pleasure is frequently referred to as leisure reading (Greaney, 1980), spontaneous pleasure reading or lucid reading (Nell, 1988), voluntary reading (Krashen, 2004), or independent reading (Cullinan, 2000). Although, reading for pleasure is done on the person's volition and not only for the purposes of education or professional development, research in this area emphasizes the importance of reading for pleasure for both educational as well as personal development.

According to Smith (2005), reading for pleasure is oriented towards finding personal meaning and purpose and related to the human need to make sense of the world, the desire to understand, to make things work, to make connections, to engage emotionally and feel deeply.

Reading for pleasure by young adults learning EFL at the university level is in some ways similar to extensive reading. Extensive reading also belongs to Free Voluntary Reading approaches that share the common idea of independent, voluntary reading. As Bamford & Day (2004) note, "in contrast to academic reading and intensive reading, and the detailed understanding they require, extensive reading encourages reading for pleasure and information" (Bamford & Day, 2004:2). Like pleasure reading, extensive reading is aimed at general understanding of the text with the main goal of finding pleasure in it and building reader's confidence. Both kinds of reading give the reader an opportunity of personal experience. They are individualized and self-determined as a student has a choice of choosing materials for reading and reads them independently. A student is free to stop reading in case he/she finds the book dull or too challenging. Research findings suggest that self-selection of extensive reading materials is, indeed, one way to promote learner autonomy.

These similarities are particularly evident if an extensive reading course is administered as "a non-credit addition to an existing reading course" or as "an extracurricular activity" (in terminology of Day & Bamford, 1998). In the first case it's an optional reading activity done for pleasure and to the students' interests in addition to a formal reading course and often no follow-up tasks are required. In the second case it's an optional open-access extracurricular reading club.

Two other ways of incorporating extensive reading into a foreign language curriculum are a separate, stand-alone course and a part of an existing reading course.

They have a more calculated specified format and timeframe as well as a certain kind of assessment and less resemble reading for pleasure. Students' autonomy in this learning procedure is also more limited.

In this paper the term "pleasure reading" is used in the authors' interpretation and can be defined as "independent, voluntary reading of self-selected materials done outside the classroom as a long-term student's individual reading project monitored during group reading conferences and one-to-one interviews, and guided by individual or group scaffolding of the teacher or a junior peer with a final presentation of the assignments on the chosen book as a credit procedure before the integrated exam in EFL".

As it was noted by Sanacore (2002), becoming a lifetime reader is predicated on developing a love of reading. From this perspective and in the view of traditional understanding of reading for pleasure and extensive reading pleasure reading at the linguistics university should be a learning procedure aimed at fostering students' lifelong reading habits that stimulates their personal, academic and social growth. It is supposed to promote students' intrinsic motivation for reading, make the process and result of reading more meaningful and pleasurable, and develop young adults' reading autonomy.

Motivation for reading is another crucial issue in promoting lifelong reading habits of young adults through a specially designed PRP. It should be noted that motivation is multi-faceted and determined by a variety of factors and attitudes.

As it was shown in one of our previous papers (Levina & Mariko, 2015) the motivational theory of self-determination (Ryan & Deci, 2012a) can serve the basis for development of more efficient in-service training programs at university. It is also applicable to other autonomy-supporting programs at university that uses a competence-based approach to learning, like, for example PRP, which can develop a positive attitude to language learning and increase motivation of young adults to read for pleasure in a foreign language.

Self-determination theory assumes that propensity to learn and develop is innate and expresses itself through proactive and future oriented behaviors. Such behaviors are promoted by three types of motivation: intrinsic, integrated and identified (Ryan & Deci, 2012b). Extensive research has proved that behaviors resulting from these three forms of motivation vary in the level of self-determination. Intrinsic motivation has the most positive impact on cognitive, behavioral, and emotional aspects of learning, while

identified motivation - the least positive (Ryan & Deci, 2013a). Evidence suggests that this effect decreases with the degree of extrinsic determination when external controls introduced into the learning environment affect the psychological processes connected with high-quality learning (Ryan & Deci, 2013b; Wilkesmann & Schmid, 2014, cited in Levina & Mariko, 2015: 235).

Research has also shown that intrinsic but not extrinsic motivation predicts reading for pleasure (e.g. Wang and Guthrie, 2004). Reading motivation is defined as “the individual’s personal goals, values and beliefs with regard to the topics, processes, and outcomes of reading (Guthrie and Wigfield, 2000: 3). In the context of motivation for reading intrinsic motivation “has to come from readers undisturbed by an externally imposed task who are reading for their own enjoyment and satisfaction” (Alderson 2000:54). Cox and Guthrie (2001) demonstrated that readers who are intrinsically motivated are more likely to be reading for their own pleasure and satisfaction; the research suggests these readers may be reading more widely and more frequently and enjoying their reading more. This correlates with the findings of research focused on children’s motivation (Wigfield et al., 2004). The authors discuss the nature of reading motivation, focusing on two major constructs that determine reading motivation: reading self-efficacy, and intrinsic motivation for reading. Their findings demonstrate that the often-observed decline in children’s motivation can be reversed with instructional practices designed to foster children’s motivation (2004:308). In an earlier research assessing whether or not reading motivation is domain specific, Wigfield (1997) came to the conclusion that “for some of the important motivation constructs, particularly, competence and efficacy beliefs, there is strong evidence for domain specificity. For other constructs, particularly, achievement goal orientations, most of the measures are general” (1997: 62). Guthrie (2001) expresses similar ideas about engaged or motivated readers, emphasizing that they are “mastery-oriented, intrinsically motivated, and have self-efficacy” (2001: 1).

A powerful motivational factor in the learning environment is teachers’ motivational influence. According to Dornyei (2001b), it is based on: a) personal characteristics (motivation, warmth, commitment, empathy and competence); b) immediacy (perceived closeness and accessibility); c) active motivational socializing behavior permitting to exert a direct influence through appropriate modeling, task presentations, a system of feedback and rewards; d) classroom management (setting and maintaining group norms and maintaining autonomy supporting authority).

Dornyei developed a comprehensive model of a motivational teaching practice that has four dimensions: creating the basic motivating conditions, generating initial student motivation, maintaining and protecting motivation, encouraging positive retrospective self-evaluation Dornyei (2001b:29).

The autonomy-supporting PRP piloted at the Chair for the English Language and American Studies at LUNN, Nizhny Novgorod, Russia also took into consideration Nell's motivational analysis of lucid reading and his three-part Flow chart of the antecedents and consequences of lucid reading (Nell, 1988:8).

METHODOLOGY

The suggested PRP operationalizes the methodology of ERR (evocation – realization of meaning – reflection) educational framework (Meredith & Steele, 2011) used as an inclusive model and a mechanism for organizing students' independent and group activities fostering learners' motivation for reading through engaging them intellectually and emotionally in an interactive process in a reading-friendly environment specially created to encourage enthusiastic readers.

It should be noted that each stage of ERR model corresponds to a stage of the learning process organized with the help of pedagogical and methodological means. Certain processes prevail at each stage of ERR scheme and these processes give a chance to “build up” learning in full correlation with the organizational structure of the learning process. At the evocation (anticipation) stage – realization of need, provision of motive, establishing of self-directed purposes (which includes choosing a way to realize the motive, planning activity and ways of action) prevail. At the stage of Realization of meaning (building knowledge) – organized active cognitive engagement and support to the learner's monitoring of understanding new information by using methods adequate to this very content (achieving specific objectives through performing actions and procedures that activate acquisition of content). At the Reflection (consolidation) stage – getting the outcome that realizes the motive and to this or that extent satisfies the need prevails (Levina & Mariko, 2015:237).

The participants of the program (experimental students) are freshmen and sophomores majoring in English and Education.

The activities involve faculty members, librarians from the English-language library and junior students. The teachers organize individual and group activities

including goal-setting, monitoring the participants' pleasure reading during the semester, reader's conferences and reflection practices, final eye-to-eye interviews anonymous feedbacks and portfolio reviews. Scaffolding adjusted to the needs students is provided by teachers, librarians and junior students or peers at group sharing sessions, individually outside classroom hours, in the library, through freshmen and sophomore web-sites that organize students' independent learning. The librarians (independently or in cooperation with the teachers) organize reading-oriented project activities.

At the end of each semester students meet with the teacher for individual interviews where they discuss follow up assignments and portfolios with the teacher conducting the program in his/her group. Dual-entry diaries and portfolios are handed in two weeks prior to the appointed interview. The books are brought to the interview or sent to the teacher by e-mail beforehand.

The participants of the program autonomously choose the book for the semester, but are given the minimum amount of pages to read. They also choose whether it will be a paper or an e-book, paper or web-portfolio for reflection and the way of presenting the written part of follow-up assignments (a hand-written or e-version).

RESULTS

To achieve the goal of enhancing student autonomy and step-by-step fostering their developing into self-motivated lifelong readers active and interactive methods that fit EER framework were used in system (when methods are chosen in order to reach certain objectives) and in the context of an activity-based instructional theory of practice that involves the learner in setting goals, active participation in the activity and decision-making.

A specially designed PRP structure was developed for creating a reading-friendly environment rich in round-fiction activities. The taxonomy of chosen activities includes reading conferences, writing a dual-entry diary, vocabulary sharing sessions, book promotion presentations, reflective practices, open-questions discussions, short-story projects, reading recommendations for peers, book trailers, etc.

The Program was launched as a long-term project in its present framework in 2012 and is still an on-going project. It constantly undergoes changes proposed both by facilitators and participants. The changes are connected with incorporating into the program framework new methods, events and activities and revising follow-up procedures.

The participants of the program autonomously choose the book for the coming semester, but are only the lower limit of the amount of pages to read per semester. We observe that a slowly growing number of students regularly read more than recommended. The students also choose whether it will be a paper or an e-book, paper or web-portfolio for reflection and the way of presenting the written part of follow-up assignments (a hand-written or e-version).

Only qualitative data has been collected so far through portfolio reflection, questionnaire surveys, class observations and interviews. The responses of experimental students demonstrate evident improvement in their attitude to reading fiction for interest, enjoyment and learning. Increased motivation and strengthened confidence in free reading has also been observed. As we may currently conclude analyzing the collected data students are particularly inspired by group reading-oriented projects and round-fiction activities. Communication over pleasure reading provokes interest to additional voluntary reading on recommendation of a peer or teacher. Students, especially freshmen, are impressed by the community spirit and lifelong learning role models they observe through a closer out-class contacts with the faculty team which resulted in summer reading projects we launched on agreement with students at the end of the very first PRP year. The English-language library that spiritually is an integral part of the faculty gives students the feeling of belonging. Shared values, activities and events, in which teachers and sometimes visiting alumni participate together with students, a healthy learning environment the faculty tries to create foster motivation to advance both in students and teachers.

CONCLUSIONS

Though we can not present statistics evidence to the fact, nevertheless our experience allows us to conclude that not PRP alone but a well-designed curriculum based on mutual values and promoting students' autonomy is crucial in fostering young adults' motivation to reading.

The article has described aspects of reading for pleasure in EFL at university for which classroom practice can be informed by empirical evidence. The experience of using the suggested RPR allows us to conclude that not PRP alone but a well-designed curriculum based on mutual values and promoting students' autonomy is crucial in fostering young adults' motivation to reading. However, many questions require further analysis. For example, the language teaching community would benefit from knowing whether the PRP will adequately serve the needs of linguistics university students for whom English is a second major. It might also be of interest to explore peculiarities of pleasure reading programs in other countries, what methods and activities are efficient in other cultural contexts. The above mentioned issues might be the focus of further research.

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Computer-Based Early Remediation for Reading Difficulties in a Consistent Orthography

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Computer-Based Early Remediation for Reading Difficulties in a Consistent Orthography

ABSTRACT

Previous studies have demonstrated the efficacy of cognitive and phonological training for children with reading difficulties (RD) but there is no study that has compared these two treatments or their combination. A group of 56 Greek-speaking children with RD, aged 6-7, were assigned to 4-week intervention focusing on cognitive (PASS Reading Enhancement Program) or grapho-phonemic (Graphogame) training or the two combined (PREP-to-GG or GG-to-PREP). Children were divided into four experimental groups following a randomized experimental design. Experimental and control groups were compared on a number of reading-related measures, before, during, and after treatment as well as a year later. Analyses of covariance revealed that experimental groups showed sizable improvements in all skills over time. This development was comparable to the development seen in the CA-C group, after controlling for their initial score. No significant differences of the type of treatment were found, although experimental groups showed some trends towards intervention.

Keywords: Reading Difficulties, Early Reading Intervention, Computer-based Remediation

INTRODUCTION

Despite a number of successful early remediation programs, a percentage of students continue to experience difficulties in reading-related skills, notwithstanding attempts at intervention. Even if these struggling readers learn to decode adequately, fluency remains a problem for many, particularly in languages with a transparent orthography. This study uses a randomized experimental design to test the efficacy of

a grapho-phonemic versus a cognitive intervention program on word reading fluency and accuracy, spelling, and reading comprehension outcomes in a group of readers with reading difficulties identified as early as in Grade 1. The section that follows on literature review (a) summarizes the most recent findings on early correlates of reading development and (b) outlines the properties of two theory-driven first-grade reading interventions that aim to improve the necessary cognitive and linguistic skills for successful reading to young poor readers.

LITERATURE REVIEW

It is widely accepted that one in five children has trouble learning to read and spell in spite of having normal intelligence, adequate instruction, no emotional disturbances, no neurological or sensory deficits (Vellutino, Fletcher, Snowling, & Scanlon, 2004). The question of why some children experience such difficulties has been the focus of a great deal of research over the past four decades. Such children have extreme difficulties with accurate and/or fluent word identification, poor spelling and phonological decoding, that is in acquiring basic reading subskills (Lyon, Shaywitz, & Shaywitz, 2003). These difficulties tend to be accompanied by specific deficits in cognitive abilities related to reading and other literacy skills (Papadopoulos, Georgiou, & Kendeou, 2009).

Cognitive and Linguistic Correlates of Early Reading Development

Reading is a complicated process that depends on the development of decoding and comprehension, each of which depends on different underlying skills and abilities (McNamara & Kendeou, 2011). However, word decoding has been the main focus in theoretical approaches to literacy skill development for many years because of its critical role in early reading acquisition (e.g., Adams, 1990). The initial phases of literacy development are occupied with the growth of precursor or enabling abilities that are related to later literacy learning (Lonigan, Schatschneider, & Westberg, 2008). Phonological ability, alphabetic knowledge, and naming speed along with basic cognitive skills, such as verbal working memory, are among those abilities that are known to play a significant role in early reading development. Although research on reading has been dominated by the study of the English language (Share, 2008), there is a general consensus that skills such as the preceding act as predictors of reading skill across different language systems (Ziegler et al., 2010). By implication, deficits in these component reading skills lead to the diagnosis of reading difficulties as a specific learning disorder, as described in the DSM-5

(APA, 2013). Consequently, an understanding of these component reading skills is essential to ensure that children's reading difficulties are identified early, and that timely interventions are put in place.

In a review of dyslexia research, Vellutino et al. (2004) summarized some of the most important findings evaluating the hypothesized causes of specific reading disability (or dyslexia) over the past four decades. First, there is a general consensus that reading disability has its origins in a *phonological deficit* (e.g., Lyon et al., 2003). There is a great body of research showing that acquisition of facility in alphabetic mapping depends, partly, on the acquisition of phonological awareness (e.g., Caravolas, Vólin, & Hulme, 2005; Papadopoulos, Kendeou, & Spanoudis, 2012). Deficits in phonological awareness have been found in studies with consistent orthographies, such as Finnish (e.g., Puolakanaho et al., 2004) and Greek (e.g., Papadopoulos, Charalambous, Kanari, & Loizou, 2004; Porpodas, 1999), as well as with inconsistent orthographies, such as English (e.g., Snowling, 2003). However, there are also studies which have challenged the importance of phonological deficits in children with reading difficulties learning to read in consistent orthographies (e.g., Wimmer, 1993; de Jong & Van der Leij, 2003). These researchers have argued that the effect of consistent spelling-sound correspondences in consistent orthographies is sufficiently powerful to secure children's phonological ability, at least after the first few years of schooling or until the age of 9.

Second, since Wolf and Bowers's (1999) seminal work on the double-deficit hypothesis, *naming speed deficits* have been also proposed as a second core deficit of reading disability. According to the naming-deficit hypothesis, children with dyslexia show impairments in quickly naming visually presented familiar symbols such as objects, colors, digits, and letters (e.g., Badian, Duffy, Als, & McAnulty, 1991). A number of studies have demonstrated that individuals with reading difficulties are slower in performing naming tasks in both inconsistent (e.g., Kirby, Parrila, & Pfeiffer, 2003) and consistent orthographies (e.g., Papadopoulos et al, 2009), with the effects of naming speed deficits on reading increasing with grade level.

Third, among the various etiological cognitive predictors of reading difficulties, memory deficits have been the most researched (Swanson, Cooney, & McNamara, 2004). Verbal working memory (VWM) deficits, in particular, have frequently been identified as markers of reading disability (Swanson, 2015). For some, these difficulties are considered as manifestations of the underlying cognitive

deficits in phonology and language skills as opposed to specific problems with VWM (Schatschneider et al., 2004; Snowling, 2003). For others, they are attributed to deficits at the level of information processing, considering particularly the significance of memory span to reading and comprehension as a function of cognitive processing speed (Das, Mensink, & Mishra, 1990; Kendeou, Papadopoulos, & Spanoudis, 2015). Savage, Lavers, and Pillay (2007) suggested that, in making sense of the relationship between phonological processing and WM, one needs to consider the type and demand of the task involved as well as the developmental level of children and the element of WM involved.

Fourth, information processing deficits provide a broader theoretical approach to the explanation of reading difficulties. Das, Parrila, & Papadopoulos (2000) have suggested that two types of cognitive processes are necessary for learning to read: a) those, such as successive and simultaneous processing that contribute to the development of phonological processing and decoding of print; and b) those, such as planning and attention, which allow the successful deployment of phonological and other skills. The PASS (Planning, Attention, Simultaneous, and Successive) model of cognitive functioning includes both kinds of processes (Das, Naglieri, & Kirby, 1994; Papadopoulos, 2013 for a thorough review). With regard to reading disability, poor readers have been found to experience difficulty primarily in the successive processing tasks, such as remembering random word sequences or word series, sentence repetition, and speech rate (Das et al., 1994). They also have been found to have inferior performance compared to their chronologically matched peers on measures of planning and simultaneous tasks accounting for significant independent variance in reading performance and, particularly, reading comprehension (Das et al., 1990).

The Case for Early Reading Intervention

The failure to reach functional levels of reading skills can lead to cumulative deficits in reading and in other areas of academic and cognitive functioning. In the area of reading difficulties there are no empirically validated answers to the question of what intervention(s) work best for which children in what setting(s) for what duration and for what reason. Factors such as the type and severity of learning difficulties, the cognitive characteristics of the learner and the interaction between cognitive attributes and features of remediation may be important in predicting the

effectiveness of remedial programs (Kearns & Fuchs, 2013). With the controversy still surrounding the type of intervention most useful for reading problems, this section examines the properties, remedial objectives, and efficacy of a cognitive intervention program (PREP: PASS Reading Enhancement Program; Papadopoulos, Das, Parrila, & Kirby, 2003) and a program focusing on grapho-phonemic training (Graphogame; Lyytinen et al., 2009).

The Graphogame Intervention

Graphogame is a child-friendly computer game that aims to improve the reading skills of children with reading disabilities with specific emphasis on the training of phonemic awareness skills and letter knowledge. Graphogame was originally developed within the Jyväskylä Longitudinal Dyslexia Study (see e.g., Lyytinen et al., 2006) in Finnish, a language with a consistent orthography, for children with learning disabilities or at-risk for dyslexia. The program provides practice in letter-sound relations, phonemic awareness, decoding skills, accuracy, and fluency and is delivered over the internet (Saine, Lerkkanen, Ahonen, Tolvanen, & Lyytinen, 2011). It focuses on the core issue of reading, learning the connections between spoken and written language, by providing an intensive adaptive learning environment with individualized repetition. Intervention data are recorded on a server and online recordings enable researchers to monitor the responses of each individual.

Early results are very promising regarding the effects of the Graphogame on the reading skills of young readers with or without reading disabilities, in both Finnish (Lyytinen et al., 2007; Saine, et al., 2011) and English (Kyle, Kujala, Richardson, Lyytinen, & Goswami, 2013). Saine et al. (2011) reported that children receiving Graphogame intervention showed significant gains in reading-related skills, such as letter-knowledge, as well as in word decoding, reading fluency, and spelling in Grade 1, catching up to their counterparts in fluency by the end of Grade 2.

The PASS Reading Enhancement Program (PREP)

PREP was developed as a cognitive remedial program based on the PASS model of cognitive functioning. It was designed to improve selected aspects of children's information-processing skills and increase their word reading and decoding abilities (Papadopoulos et al., 2003). PREP is an alternative to direct training of strategies for remediating reading skills and is based on the assumption that transfer of principles can be facilitated through inductive rather than deductive inference (Carlson & Das, 1997). To meet the multiple objectives of the study, a computerized version of the PREP

program was designed and piloted in Greek following up the original work by Papadopoulos et al. (2004).

PREP has produced positive results in terms of cognitive performance and reading ability, in both non-transparent (e.g., Carlson & Das, 1997; Papadopoulos et al., 2003) and transparent orthographies (e.g., Papadopoulos et al., 2004); with children at-risk for reading difficulties in Kindergarten (e.g., Papadopoulos et al., 2004); with poor readers in Grades 1 and 2 (e.g., Papadopoulos et al., 2003; Parrila et al., 2000); and in comparison with other experimental groups receiving different treatment programs, such as phonics-based (e.g., Das et al., 2008), meaning-based (Papadopoulos et al., 2003) or neuropsychological-based programs (Papadopoulos & Kendeou, 2010).

METHODOLOGY

The purpose of the present study was to compare a grapho-phonemic remediation program, the Graphogame, with a cognitive intervention program, the PREP for the enhancement of reading performance in a transparent orthography. Following a randomized control trial design, the study also investigated whether web-based or computerized applications can produce significant effect sizes for change in literacy in the early years. The intervention programs were delivered over the internet or on a CD-ROM using different platforms that allowed data keeping and processing via remote servers and locally, respectively.

Previous studies have demonstrated the efficacy of phonological or more general cognitive training for children with reading difficulties (RD). However, there is no study that has compared these two treatments or their combination. In the present study, a group of 56 Greek-speaking children with RD, aged 6-7, were assigned to a 4-week intervention focusing on cognitive (PREP, $n=14$) or phonological (Graphogame; GG, $n=14$) training or the two combined (PREP-to-GG or GG-to-PREP; $n=14$ in each group) and they were compared to a chronological-age matched control (CA-C) group ($n=17$) of typically developing readers. All groups were matched on the basis of age, gender, parental education levels, non-verbal and verbal ability. Outcomes were assessed in multiple cognitive, linguistic, reading, and orthographic measures, before (Time 1), during (Time 2), and after treatment (Time 3) as well as at a follow-up a year later (Time 4). Here, we report only the findings on groups' performance in reading fluency. Remediation consisted of daily 30-min

sessions, administered individually, during school hours by certified special education teachers or trained graduate psychology students.

RESULTS

Two 5 (group) x 3 (time) between subjects analysis of covariance were performed for word reading and phonemic decoding fluency to determine the effects of the four training programs (i.e., GG, PREP, GG+PREP, PREP+GG) on post-intervention and follow-up reading performance. Pre-intervention reading performance was used as a covariate in order to remove the effects of pre-test performance and thus, reduce the within-group error variance. In both analyses, results of evaluation of the assumptions of normality of sampling distributions, linearity, and homogeneity of covariance were satisfactory. Tables 1 and 2 present the unadjusted and adjusted intervention means for mid-intervention, post-intervention, and follow up reading performance with pre-intervention scores as a covariate, for word reading fluency and phonemic decoding fluency, respectively.

Word Reading Fluency and Accuracy Performance

Word reading fluency: Results showed that after adjustment for pre-intervention performance (Time 1) on word reading fluency, no significant differences of the type of treatment were found, $F(4, 67) = .44, p > .05, \eta^2 = .03$, nor was there a significant interaction between group and time ($p > .05$). However, statistically significant changes in word reading fluency were revealed over time, $F(1,67) = 35.94, p < .001, \eta^2 = .35$. Subsequent analyses revealed significant differences from mid- to post-intervention, $F(1,67) = 27.15, p < .001, \eta^2 = .29$, from post-intervention to follow-up, $F(1,67) = 21.32, p < .001, \eta^2 = .24$, and from mid-intervention to follow-up, $F(1,67) = 53.03, p < .001, \eta^2 = .44$. In other words, children participating in this study were learning to read irrespective of the group they belonged to.

Phonemic Decoding Fluency: Similar results were observed for phonemic decoding fluency. Particularly, no significant differences among the groups were found, $F(4, 67) = 1.39, p > .05, \eta^2 = .08$, nor was there a significant interaction between group and time ($p > .05$). However, statistically significant changes in phonemic decoding fluency were found over time, $F(1,67) = 46.08, p < .001, \eta^2 = .41$. Subsequent analyses showed significant differences between mid- and post-intervention scores, $F(1,67) = 27.14, p < .001, \eta^2 = .29$, between post-intervention and follow-up scores, $F(1,67) = 51.92, p < .001, \eta^2 = .44$, and between mid-intervention

and follow-up scores, $F(1,67) = 66.60, p < .001, \eta^2 = .50$. These results indicate that all treatment groups developed decoding skills enabling them to reliably identify words that are unfamiliar to them in print.

Overall, these findings show that the development in reading ability seen in all treatment groups was comparable to the development seen in the CA-C group, after controlling for their initial score, which was far faster than what would be expected over participants' school careers.

Table 1. Unadjusted and adjusted intervention means for mid-intervention, post-intervention, and follow-up reading performance with pre-intervention scores as a covariate for Word Reading Fluency.

Groups	N	Mid-intervention				Post-intervention				Follow-up			
		Unadjusted		Adjusted		Unadjusted		Adjusted		Unadjusted		Adjusted	
		Mean	SD	Mean	SE	Mean	SD	Mean	SE	Mean	SD	Mean	SE
CA-C	17	18.71	5.50	14.44	0.86	19.82	5.95	16.53	0.95	30.35	6.59	25.13	1.65
PREP	14	13.93	3.12	13.94	0.82	15.36	3.00	15.36	0.91	27.71	9.57	27.73	1.58
GG	14	11.50	5.36	13.47	0.85	15.71	3.17	17.24	0.94	26.29	7.29	28.70	1.63
PREP+GG	14	12.36	4.22	14.27	0.84	16.00	3.53	17.48	0.94	26.21	5.91	28.56	1.62
GG+PREP	14	12.64	5.33	13.92	0.83	15.76	5.37	16.78	0.92	26.57	7.54	28.14	1.60

Table 2. Unadjusted and adjusted intervention means for mid-intervention, post-intervention, and follow-up reading performance with pre-intervention scores as a covariate for Phonemic Decoding Fluency.

Groups	N	Mid-intervention				Post-intervention				Follow-up			
		Unadjusted		Adjusted		Unadjusted		Adjusted		Unadjusted		Adjusted	
		Mean	SD	Mean	SE	Mean	SD	Mean	SE	Mean	SD	Mean	SE
CA-C	17	14.41	4.09	10.38	0.87	17.29	4.52	13.62	1.04	19.00	4.99	16.09	1.23
PREP	14	10.57	2.74	11.05	0.83	13.00	3.19	13.43	0.98	18.14	5.55	18.49	1.16
GG	14	9.14	5.45	10.15	0.83	10.57	6.03	11.49	0.99	16.71	4.12	17.44	1.17
PREP+GG	14	9.64	4.40	11.98	0.87	13.57	3.94	15.70	1.03	17.43	3.55	19.12	1.21
GG+PREP	14	9.86	5.45	10.93	0.83	12.86	5.50	13.84	0.99	17.43	5.96	18.20	1.17

CONCLUSIONS

Results suggest several conclusions about research and the development and practice of reading intervention. First, designing and implementing intervention schemes in reading research has never been an easy task and it is not going to become one, unless we understand what remediation actually requires. Our results show that successful remediation requires direct, intensive intervention with programs that build the necessary cognitive or linguistic skills to read proficiently. Specifically, our results are consistent with the findings of previous studies demonstrating that both an intensive cognitive intervention (Papadopoulos et al., 2003; Parrila et al., 2000) as well as an intensive grapho-phonemic intervention (Huemer, Landerl, Aro, & Lyytinen, 2008) hold promise for improving student word reading performance early on. The new and interesting finding is that this improvement is also observed when the two types of interventions are delivered in combination. Findings like these may be attributed in part to the theoretical underpinnings or the administration properties of the two programs and in part to the transparency of the Greek language or a combination of the two.

PREP aims at improving the distal cognitive processes that are responsible for the successful deployment of more proximal reading skills, such as phonological processing, and thus, reading (Papadopoulos et al., 2003). The results showed that all three groups who received PREP benefited considerably from training on phonological, naming, cognitive, reading and orthographic processing skills after remediation. This means that this was true even in the case where PREP followed Graphogame, a result that could be attributed to the properties of the Greek language and the nature of the Graphogame intervention (see next paragraph). Training success yielded significant long-term effects a year later, in Grade 2, a finding that has not been regularly reported in studies of reading remediation (Troia, 1999; Papadopoulos et al., 2003).

Graphogame aims to train the reading skills of children with reading disabilities with specific emphasis on training phonological processing skills. It has been shown to be successful when it is delivered for both short (e.g., <20 days; Lyytinen & Richardson, 2013) as well as long (e.g., ≤30 days) periods of time (Kyle et al., 2013). Given also that in a transparent writing system, the letter-sound connections can be drilled efficiently and without complications (Lyytinen et al., 2009) and that reading accuracy and fluency are

strongly predicted by phonological skills in Greek (Papadopoulos et al., 2012), it does not come as a surprise that Graphogame alone or in combination with cognitive training may also lead to efficient word reading. The transparency of the Greek language enables even children who show insufficient phonological processing at school entry to gradually tackle their difficulties with phonological processing and find means to compensate for poor reading performance (Papadopoulos et al., 2009).

Of course, the big question hanging over these results is why both treatments and their combinations were shown to be equally efficient in remediating reading fluency and accuracy problems. We believe that these patterns of results may be also due to the complementarity of the alternative treatments in a randomized control trial design or the lack of an untreated control group of children with reading difficulties. We discuss these limitations next.

A randomized control trial design may be ill-suited to answer questions about the long-term effects of complementary or alternative treatments on reading difficulties. That our experimental groups did not differ from each other at either post-intervention (Time 3) or follow-up assessments (Time 4) indicates a difficulty in making causal inferences regarding the relationship between intervention(s) and outcome(s) when utilizing a randomized experimental design. In the case of the combined treatments, it is possible that some components of one program may augment components in the other, while others may be redundant, and still others may cancel out each other's effects. Therefore, comparing outcomes of these sorts of intervention may obscure systematic individual differences in response to specific treatments, whereas differentially effective treatments may be the result of systematic or predictable differences at the reader's level. Hence, as Das (2001) has pointed out, perhaps for reading research the question should be not which treatment works best, but more importantly which works best or better for whom, when, and why. In fact, earlier research which considered the individualization of a treatment to a unique combination of reader characteristics concluded that remedial benefits can be maximized when the cognitive and linguistic processes that may be lacking for learning to read are identified prior to intervention (Das, 2001; Papadopoulos & Kendeou, 2010). Therefore, it is important for the science of reading intervention to

understand better which aspect(s) of solid or combined remedial packages make a difference for whom, or how the various components actually work.

In conclusion, the findings of the current study clearly demonstrate that both PREP and Graphogame remedial programs, as well as their combination, are effective and beneficial for remediating reading difficulties of children in Grade 1 in a transparent orthography, such as Greek. Consequently, these remedial tools, in combination with other remedial reading practices that already class teachers or special educators employ in their classrooms, should form an important part of daily resource room routines. After all, what makes a reading remediation program effective are its theory, methods and structure, the skill and experience of the teacher, the quality of instruction delivered, the ability and motivation of the student, and the amount of time spent learning to read.

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DYNAMICS OF VOCATIONAL LITERACY DEVELOPMENT IN MOZAMBIQUE

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Abstract

The study presented in this paper aims to provide an historical analysis of the situation with vocational literacy in Mozambique. In particular, the role of Non-Formal Vocational Education (NFVE) and influences that shape it in the context of Mozambique are problematized. The analysis is done through the theoretical lens of the Cultural-Historical Activity Theory (CHAT). Employing the CHAT approach, the study analyses the historical development of vocational literacy in formal and non-formal education in Mozambique, as well as current trends and perspectives. Methodologically the study was done through an analysis of oral, printed and e-resources produced by the main stakeholders and a reflective experience of the authors' decades' long educational work in Mozambique. The findings show a strong dependence of formal and particularly NFVE sector on technical and financial support provided by international organisations. NFVE courses are characterised by a lack of adequate equipment and poor practice. This lead to domination of theoretical or elementary forms of vocational knowledge provided in the courses resulting in the learners' and the educators' dissatisfaction. Vocational literacy development proved to be a complex field that faces many challenges and is characterised by various inner-contradictions.

Introduction

Present, past and future developments of social phenomena are always interconnected. It is of great interest to understand developmental trends in different educational fields. This study attempts to provide an historical analysis of the situation with vocational literacy in Mozambique. This field is actively developing in the country and has constant political attention, as it is expected to expand educational and employment opportunities for a broader public (Ministry of Education, 2012). Lack of previous academic studies systematically exploring the development of vocational literacy in Mozambique is justifying this work. We define vocational literacy here as the activity oriented towards the development of job-related and income-generated knowledge and skills including essential elements of functional literacy and numeracy. For example, a vocationally literate person needs to learn to read and follow instructions, do, understand and communicate measurements, and develop basic knowledge and skills of a trade. This study does not embrace formal vocational education and training that is expected to give more advanced professional competence.

In Mozambique, vocational literacy is provided mainly by formal schooling through Labour Activities/craft lessons and by different organizations giving short Non-Formal Education (NFE) courses. This latter approach can be defined “as all systematic communication of skills, knowledge and attitudes provided outside the limits of the formal school...” (Tuijnman, 1996 p. 22). NFE can allow opportunities to gain knowledge and skills necessary to improve citizens’ economic and social wellbeing and was one of the focal points of this research. The major research questions are:

- What are the historical trends of vocational literacy development in Mozambique?
- Which factors and influences have shaped this development?
- What are the major challenges and tensions in the current development of vocational literacy in the country?

The study is taking place in the complex historical context of a developing country which is briefly presented below.

Mozambique: outline of the historical and educational context

Mozambique gained independence from Portugal forty years ago (1975) and chose socialist post-colonial orientation, as socialist block countries had actively supported the liberation of the country. Thus, Mozambique became involved in a confrontation with capitalist block countries including the apartheid regime of South Africa (then Rhodesia), which intervened directly and fuelled military resistance to the socialist transformations in Mozambique resulting in sixteen years long civil war. In the 1990's, following the collapse of the socialist block, the country started to change to a free market economy. This trend led to a rapid expansion of the private sector including private educational institutions in the field of formal, non-formal and higher education. A number of private NFE programmes offered courses in English, tourism, management, business, accounting, etc., thus marking transition towards liberalisation and integration in the world free market economy. In 1995 there were only four higher education institutions in the country, all of them public, however, recently there are 46 (MINED, 2013) higher education institutions, most of them private.

Today, after more than twenty years of liberal development characterised by enormous socio-economic stratification in the society, Mozambique remains one of the world's poorest countries, in 178th place out of 187 in the Human Development Index (UNDP, 2014). Child labour remains a broadly accepted practice in the society where almost 40% of children are out of school (Casey, 2014). Mozambique's adult population has an average of just 1.2 years of formal schooling, compared to the average of the Least Developed Countries of 3,7 years (Casey, 2014). Following cut in public expenses demanded by the World Bank, the main promotor of the process of liberalisation of Mozambican economy, education in the country remains largely dependent on foreign funding. Donor assistance accounted for 35.4% of the total education budget (Bertelsmann Stiftung, 2014). In general, schooling completion rates are very poor. Only 63% manage to finish grade five. The quality of teaching and poor infrastructure are decisive factors here. There is a chronic lack of qualified teachers and the teacher/pupil ratio remains high, at 58 pupils per instructor (Bertelsmann Stiftung, 2014). These unfavourable figures concerning the functioning of public school system help us to understand the importance of Non-Formal Education (NFE) in the country.

Theoretical framework

The Cultural-Historical Activity Theory (CHAT) is used as a framework for the analysis of the process of vocational literacy development. Its key concepts are presented and their meaning is defined within the context of the study. Employing the Cultural-Historical Activity Theory approach, the study analyses the historical development of vocational literacy in Mozambique, as well as the current dominating trends and perspectives. This also includes the understanding of the development of motivational aspects associated with vocational education activities.

The Activity Theory developed by Leontiev (1978) is based on the two main theses of Vygotsky. The first thesis is that the sources of personal development are situated in a social environment. Vygotsky and his followers conceptualised mental development as the transformation of socially shared activities into internalised processes. The second thesis is that human actions, both on the social and the individual level, are mediated by tools, both psychic and physical. These tools are the products of socio-cultural evolution which individuals have access to by being actively engaged in the practices of their communities (Vygotsky, 1981). When talking about tools, the researchers refer to external material artefacts as well as to signs, concepts, spoken and written language, works of art, stories, diagrams, maps, drawings, internalised mental models, etc.

The mediating artefacts convey a particular culture and history and a persistent structure that stretches across activities through time and space. Engeström (1990, p. 264) inferred that they “insert mankind’s historically accumulated and objectified experience into individual actions.” An important aspect of mediation pointed out by Wertsch (1991) is that mediating tools are viewed as fundamentally shaping and defining the activity. This means that mediating cultural artefacts, such as working tools, instruments, machines, signs, languages and narratives need to be analysed to understand any human activity.

Cole (1988) asserts an important claim that there is no universal, context-free tool. The use of tools implies context specificity. The context of an activity could be defined in general terms as its “physical and conceptual structure as well as the purpose of the activity and the social milieu in which it is embedded” (Rogoff, 1984, p. 2).

Thus, following the CHAT, it is possible to state that in order to understand an educational activity, it is necessary to pay attention to mediating tools, including narratives, and the context of the activity.

The methodological principles of CHAT

Engeström (1993) presented three basic principles that can be used to analyse and interpret data that record and describe human behaviour from an activity-theoretical viewpoint. First, a collective activity system can be taken as the unit of analysis. Second, the activity system and its components can be understood historically. Third, inner contradictions of the activity system can be analysed as the source of disruption, innovation, change and development of that system, including its individual participants.

1. The entire activity system as the unit of analysis

Vygotsky raised objections to reducing the phenomenon of interest into separate elements that are studied in isolation. He proposed that, for the purpose of analysis, the whole should be partitioned into what he called units. In contrast to atomistic elements, units designated a product of analysis that contained all the basic characteristics of the whole. According to the activity theory, the unit of analysis includes both the individuals and their culturally defined environment (Cole, 1981). Rogoff (1995) states that the use of activity as the unit of analysis – with active and dynamic contributions from individuals, their social partners, and historical traditions and materials and their transformations – allows for a reformulation of the relation between the individual and the social and cultural environments in which each is inherently involved in the other's definition. In this study vocational literacy is taken as a unit of analysis.

2. Historicity as the basis of classification and analysis

Cultural phenomena are necessarily historical and can be understood only through historical analysis of their development. Cole (1995, p. 191) explains that if we are to understand the workings of culturally mediated behaviour, it is necessary to understand the processes of change and transformation that, by definition, take place over time. Such notions as development and progress should be appropriate for this analysis. Considering the development of complex human activity systems, Engeström (1993, p. 70) suggests

that progress in the activity system could be analysed by taking into account a degree of movement from low complexity and high centralisation towards high complexity and low centralisation. The latter is a typical case of Non-formal vocational education and training.

3. *Inner contradictions as the sources of change and development*

Activities never take place in isolation. They are interwoven with other activities that deal with the same or connected objects or produce the instruments used in the activity in question. An activity is not a stable and harmonious system. External influences may change some elements of activities, causing imbalances between them. CHAT uses the term contradiction to indicate a misfit within elements, between them, between different activities, or between different developmental phases of a single activity. Contradictions manifest themselves as problems, ruptures, breakdowns or clashes. CHAT sees contradictions as sources of development. Activities are virtually always in the process of working through contradictions (Kuutti, 1996, p. 34). To understand the development of an activity it is necessary to study contradictions existing within the activity system, for example, between the tools currently used and the object created, or the norms that are part of praxis and the division of labour. According to the dialectical philosophy, to develop means to tackle and resolve existing contradictions in the activity system, both intellectually and practically.

The study methodology

This qualitative study was initially based on desktop document analysis, both printed and electronic. Document analysis implied constant reading and interpretation of material for identification of relevant data and its categories. In this process, data was organized into categories linked to the research questions (Bowen 2009). Further, as Bowen (2009) suggested, document analysis is logical to combine with other qualitative research methods to ensure triangulation. Thus, in this study structured conversations with different educational stakeholders were also used as well as our own reflective, decades-long experience of studying and working in Mozambican formal and NFE. This method allowed us to connect time, space and instances of human practice in a story describing the complex development of vocational literacy in Mozambique from a holistic perspective.

Methodologically, our analytical approach is related to Narrative Inquiry and draws upon the conceptualisation of written and oral narratives and our experiences. This is a rather common methodological approach used in the studies of educational experiences. Connelly and Clandini (1990) suggest that the main strength of narrative inquiry is in providing “a sense of the whole.” They further explain that the sense of the whole is built from a rich data that can be collected in the form of “field notes of the shared experience, journal records, interview transcripts, others’ observations, storytelling, letter writing, autobiographical writing, documents such as class plans and newsletters, and writings such as rules, principles, pictures, metaphors, and personal philosophies” (Connelly & Clandini, 1990, p. 5). In our study most of these methods were used in different stages of the work and validation of data and inferences coming from it were done through the use of independent sources of information.

Findings

The selected subheadings or categories structuring the presentation of the findings in the text below were inspired partly by the CHAT methodological principals, and partly from the analysis of the data.

Dynamic educational field

There are many different providers of vocational literacy in Mozambique. The Ministry of Education and Development and the Ministry of Labour, Employment and Social Security are major national actors in the field of education and training in general, including adult education and NFE. The Ministry of Education develops and monitors the entire educational system. For example, through the National Office of Literacy and Adult Education, it provides the curriculum for literacy programmes, the teaching and learning materials, employs literacy educators and promotes vocational skills development in adult education programmes. The National Institute of Employment and Professional Training belonging to the Ministry of Labour, the Employment and Social Security Department is the main institute responsible for Non-Formal Professional and Vocational Education and Training. For instance, it organises the training centres and the training programmes, provides the certificates and some teaching material. Foreign and local NGOs, private and religious organisations are other important actors working with different kinds of

vocational literacy in the country. The field of vocational literacy development is rapidly evolving and expanding. Two driving and partly complementary forces could be identified behind the recent development trends. On the one hand, political pressure of expanding provision of vocational education opportunities for the broader public (Ministry of Education, 2012) and, on the other hand, economic interests of non-formal education providers. Private actors can gain good money by offering expensive courses and a market for such courses continues to expand in the cities.

A challenging cultural context for promoting vocational literacy

Educational development inevitably mirrors and at the same time contributes to the development of local cultural context. Mozambique with population of about 26 million has a very complex cultural environment. There are 13 main languages in the country, but the only official language is Portuguese, which is spoken mostly as a second language. The largest religion is Christianity, with significant minorities following Islam and African traditional religions. This means that the Mozambican society is multilingual and multicultural. After independence, a new native social elite was created, and the new “modern” values came in conflict with the “traditional” values leading to many challenges in educational development.

Currently in Mozambique, there are clear tensions between modern individualistic society values that, for example, prioritise the nuclear family and traditional cultural values where the rules and needs of the extended family are in focus. The role and status of traditional culture have changed greatly in the society. Before the independence, the colonial administration marginalised traditional culture. During that period there was a minority of “assimilated” Mozambicans, who had been challenged to adopt Portuguese culture to enjoy “the constitutional rights and privileges of Portuguese citizens” (Ferreira, 1974, p.18), and a majority of “non-assimilated,” who maintained their traditional culture and was deprived of such rights and privileges.

After the independence, the national government encouraged the reinvigoration of some traditions, such as folklore, but maintained an orientation towards state-driven cultural unification and a socialist modernization of society. Thus, the use of local languages in the educational institutions was discouraged, since Portuguese was considered the language of

national unification. Nowadays, it is possible to witness a strengthening of traditional cultural influences in the society in general. Use of local languages is encouraged in primary education, and adult literacy courses in Mozambican languages are promoted by some NGO's. According to political willpower, all major Mozambican languages will be used in formal education for supporting the development of basic literacy skill. However, this demands significant investment in developing learning materials and training teachers that appears to be problematic to assure this without massive donors' support.

Multiculturalism in Mozambique has another subtle social tension – between official strive for national unity and valorisation of local cultural traditions leading occasionally to regional separatism. This issue is very sensitive and periodically appears to have explosive character resulting in paramilitary actions in the Centre of the country.

Many contradictions could be identified in the development of vocational literacy. We will present just some of them that are particularly revealing in the Mozambican context. One of the major contradictions is the inadequate attention to the development of agricultural literacy in formal and non-formal educational sectors when there are continuing social demands for it. More than 75% of the people in Mozambique depend on agriculture for their livelihood (Bertelsmann Stiftung, 2014). Low productivity small-holder farmers account for 95% of the country's agricultural production (ibid.). Here, considerable gains could be made by helping them to improve productivity. Formal and non-formal education could make its contribution by providing relevant agricultural literacy skills, at least for that 70 % of the population that lives in rural areas. Agriculture is and will continue to be one of the most important sectors of the country's economy. This issue remains a serious challenge for the national education system. The Ministry of Education and Development fails in their curriculum policy of promoting agriculture in rural schools. One of the reasons could be a complex issue of assuring provision of necessary resources and materials for agricultural school activities and related issues of accountability and management assuring purposeful use of provided supplies. Practical activities cost money and demand logistics that is not currently in place within the formal education system. The non-formal sector also has a rather marginal contribution to promoting efficient agricultural practices, mainly through foreign NGOs.

In general, non-formal technical vocational education should have practice and hands-on based courses. However, they are usually characterised by a lack of adequate equipment and poor opportunities for practice. Thus, here lays another important inner contradiction between the practical nature of technical knowledge and skills and absence of the necessary conditions for realisation of practical activities. This lead to domination of theoretical or rudimentary forms of vocational knowledge provided in the technical courses (e.g. car-repairing or refrigeration) resulting in the learners' and the educators' dissatisfaction. Vocational literacy has proven impact on employment and self-employment but also on generic life-skills development. However, in many cases, participants have higher expectations about program outcomes than those really achieved.

Another contradiction is about learners' desires and opportunities. Becoming literate in modern technology is more attractive for young people than learning agriculture in schools or training centres. However, lack of necessary resources in schools makes computer and other kinds of modern technology literacy unrealistic for the majority of pupils in formal education, but relevant vocational literacy, including learning agricultural activities, is rather undesirable as they have seen it only as hard work in the fields giving very poor income. Non-formal computer courses are too expensive for most of the young people. Private providers with good reputation charge about 1700 *meticais*, equivalent to 35 Euros per month, for six months (over 200 €), which makes them rather inaccessible.

A similar situation also exists as concerns foreign language studies. English language skills are considered as important vocational knowledge by many Mozambican people. The country is neighbouring to powerful regional economic leader – South Africa and actively involved in the regional and global collaboration. Skills of communication in English creates new income generating opportunities. Formal primary school education provides limited possibilities for learning English. It is not even in the curriculum for grades 1-5 in public schools. Therefore, private NFE institutions are active in this area, but courses usually are very expensive.

Poor professional context

Educators, teachers, literacy workers are the main actors defining how vocational literacy will be shaped and even if it will be implemented at all. Educational activities in

Mozambique are rather teacher centred. Thus, teacher motivation defines much effectiveness of such activities. In the liberal economy system, monetary remuneration becomes rather decisive for teachers' commitment to their work.

In the formal education system, the teachers giving practical activities related to vocational literacy do not receive any monetary benefits in comparison with those who choose not to do practical component. But any practical activity, for example, teaching embroidery, demands extra time for organising logistics of the process, e.g. asking children to bring necessary material from their homes, share materials, etc. The situation is aggravated by the fact that teachers do not receive almost any preparation in crafts and *ofícios* during their teacher education. In NFE the situation is rather similar. Practical component is weak in most of the NFVE courses.

Poor work conditions could be illustrated by the fact that currently, a literacy worker in Mozambique earns a salary of about 700 *meticaís* (about 15 Euros) per month. Contracted by the Ministry of Education and Human Development she or he has usually a contract for a maximum of one year. Salary delays for 3-4 months are rather "normal". Low salaries and high workload are what face literacy workers and educators in many NFVE courses. Sometimes literacy workers are also teaching other courses like sewing or small business management gaining an extra income. However, when such educators have to go to give classes twice a day (morning and evening) and take rather expensive transportation this makes their extra income marginal.

Additionally, we could witness that one of the general weakness of NFVE is the absence of quality assurance and support system for curriculum implementation. For example, there is no external monitoring of the programmes. Educators do not have the possibility of improving their professional competence. There is no pedagogical resource centre for NFVE teachers or functioning centres supporting vocational literacy development. All this contributes to the poor professional context for educators working with vocational literacy.

Discussions

The development of vocational literacy that enhances learners' job-related and income generated knowledge and skills including essential elements of functional literacy and

numeracy can assure social wellbeing of the citizens. According to the World Conference on Education for ALL (UNESCO, 2000 p.8), “all children, young people and adults have the human right to benefit from an education that will meet their basic learning needs, aiming to improve each individual’s abilities, personality and their life”. Mozambique experiences rapid economic, social and political changes but unfortunately current trends of globalization and its neoliberal policies increased unemployment, poverty and social exclusion for a significant part of its citizens. At the same time, the country is also heavily affected by HIV/AIDS that poses a significant threat to its development. Formal education that should respond to these challenges is characterized by high rates of drop out, lack of relevance, as well as insufficient provision, mainly in the rural areas. As we have found, vocational literacy is almost absent throughout the formal educational system. Pupils in schools do not learn practical skill related to possible income generating activities and satisfying their daily life needs, like cooking, sewing, carpentry, computer, etc. Therefore, this poses extra expectations on non-formal vocational courses that people need to pay for. Considering CHAT theoretical stances, we need to reflect on contextual factors affecting human development. In the light of historical perspective, it is possible to state that context was not only unsupportive but also oppressive for the majority of people during colonial, socialist and liberal phases of societal development in Mozambique. Low-income families in the cities and rural areas have had little support to improve their wellbeing through education. The current dramatic increase in the socio-economic stratification of society makes a professional career through education for the majority of not wealthy people almost equally problematic as in colonial time. Vocational literacy remains the only way for “ordinary people” to get involved in sustainable income generating activities.

Mediating artefact often creates proper activity. For example, sewing is not possible without a sewing machine. CHAT affirms that mediating tools are fundamentally shaping and defining the activity. If vocational education courses lack basic equipment, they cannot provide necessary skills and competencies for the participants. This situation is what we could find in many NFVE programmes in Mozambique. Outdated and non-functional equipment is rather typical phenomena in NFVE programmes. A similar situation happens in public school, introducing agricultural activities in the curriculum where the Ministry of

Education does not provide necessary tools, modern seeds, and fertilisers to make these activities visibly relevant and appealing to teachers, learners, and their parents.

Absence of proper practical components and internships opportunities lead to handicapped vocational competence development. According to general CHAT postulates, individual development is seen as the transformation of socially shared activities into internalised processes. Without active participation in vocational activities it is not possible to develop desired individual vocational literacy.

Upcoming exploration of newly discovered natural resources (coal, gas, minerals) in the remote regions of the country with the involvement of big foreign actors, in particular China, open new demands for vocationally literate people. We can predict upcoming dimensions of literacy programs that will focus on multi-language skills and vocational literacy with elements of English and local languages. Vocational literacy in Mozambique is a complex educational activity that faces many challenges, has many contradictions and needs more systematic analysis and further research.

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Language assessment literacy: empirical research findings and pedagogical recommendations

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Language assessment literacy: empirical research findings and pedagogical recommendations

Abstract

This chapter discusses the notion of “language assessment literacy” (LAL) and its related issues, with a particular focus on English language teachers and their professional development as a major component of teacher professionalism in the context of school transition from traditional to innovative entities. The different definitions of the term ‘language assessment literacy’ are presented first charting its emergence in the field of second language assessment. Research findings LAL are considered in pre- and in-service training in the Cypriot and other European contexts. Finally, the chapter outlines the pressing challenges which exist for fostering LAL among EFL teachers and suggest approaches to professional development which help schools become dynamic and efficient systems and foster teachers’ empowerment and autonomy.

Key words: language assessment literacy, test washback, high-stakes tests, classroom-based assessment

INTRODUCTION

The Oxford English Dictionary (OED) defines the term ‘literacy’ as ‘the ability to read and write’. The inability to do so is called ‘illiteracy.’ However, the term “literacy” has undergone an expansion in meaning in recent years. For instance, the United Nations Educational, Scientific and Cultural Organization (UNESCO) defines literacy as the “ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society”².

The broadening of the traditional scope of literacy has led to some “new” literacies in the academic and public discourse in recent years. Among these, the concept of

², "The Plurality of Literacy and its Implications for Policies and Programs". *UNESCO Education Sector, Position Paper*. 2004, p. 13. Available from: <http://unesdoc.unesco.org/images/0013/001362/136246e.pdf>

"assessment literacy" has emerged in the literature of educational measurement. First coined by Stiggins (1991), "assessment literacy" is viewed in a broader sense as "the ability to understand, analyze and apply information related to student performance to improve instruction" (Falsgraf, 2005, p. 6). However the term "assessment literacy" has undergone both an expansion and fragmentation in meaning. For instance, within the umbrella term "assessment literacy", it has been argued that "language assessment literacy" (LAL) is a research and training area which might need to be considered separately due to the unique complexities that are entailed in the testing and assessment of linguistic skills and communicative competence (see Inbar-Lourie, 2008, 2013; Taylor, 2009; 2013; Jeong, 2013). Nevertheless, it was not until the early 2000s that LAL began to be explored in earnest in the language testing and assessment (LTA) literature. The past decade, for instance, has seen rapid growth in research and commentary on LAL, with symposia, handbook and encyclopedia entries, and recently a special issue of *Language Testing Journal* (see Inbar-Lourie, 2013) was devoted to the topic.

While recognized now as a distinct entity, LAL has been conceptualized in various ways across the literature in the field of LTA. For example, O' Loughlin (2013) defines "language assessment literacy" as "the acquisition of a range of skills related to test-production, test score interpretation and use, and test evaluation in conjunction with the development of a critical understanding of the roles and functions of assessment within society" (p. 363).

Inbar-Lourie (2008) sees it as "having the capacity to ask and answer critical questions about the purpose of assessment, about the fitness of the tool being used, about testing conditions, and about what is going to happen on the basis of the test results" (p. 389). Fulcher (2012) offers perhaps the most detailed working definition to date, when saying that LAL refers to:

"The knowledge, skills and abilities required to design, develop, maintain or evaluate, large-scale standardized and/or classroom-based tests, familiarity with test processes, and awareness of principles and concepts that guide and underpin practice, including ethics and codes of practice" (Fulcher, 2012, p. 125).

Recent studies have recommended that appropriate levels of assessment literacy be developed among a wide variety of school stakeholders (see O'Loughlin, 2013; Pill & Harding, 2013; Taylor, 2009). However, it is first and foremost language teachers who are considered to need "a dose of assessment literacy" as language teachers with a solid background in assessment are well-equipped to integrate assessment with instruction and use appropriate forms of teaching leading to enhanced learning (Coombe, Troudi, & Al-Mamly, 2012; Inbar-Lourie, 2008; Malone, 2008; Stoyanoff & Chapelle, 2005; Taylor, 2009).

But what kind of assessment issues are language teachers confronted with in their everyday classroom activities? Language teachers deal with various assessment procedures in their professional life on a daily basis. For instance, they have to design and administer classroom tests themselves. In some cases, they even create high-stakes tests without trialling them and often mark them on their own without a second rater. Teachers also employ various forms of continuous or formative assessment procedures and develop or adapt scoring schemes for their institution, region or country. In many contexts, FL teachers are faced with external testing procedures, e.g. school-leaving examinations and international standardised tests and usually offer exam courses that prepare learners for proficiency tests like TOEFL or IELTS and other high-stakes exams.

Furthermore, new developments in language teaching, as well as EU policies on language learning, require new competencies of teachers. For example, the European Language Portfolio (Morrow, 2004; Schneider & North, 2000) highlights self-assessment as a supplement to teacher assessment. Peer-assessment has also been added to the pedagogic agenda of the innovative FL teacher. These developments call for new skills to be acquired by EFL teachers (see also Edelenbos & Kubanek-German, 2004).

However, despite the recent discussions and interest in LAL, we still do not know enough about the true levels of language teachers' assessment literacy and about the complexities of developing appropriate skills of assessment literacy. In other words, we know little about the ways in which language teachers cope with their assessment demands, whether they possess the assessment competencies required of them or whether and to what extent teachers can be or are prepared for these new challenges. These questions actually call for an investigation of the *status quo* of the teachers' assessment literacy. This will be

the focus of this chapter which will briefly present results of research undertaken in LAL by the current research over the last five years offering insights into teacher cognition of their LAL needs and outlining pressing challenges which exist for fostering LAL among English language teachers. Based on these studies, the chapter will propose various approaches to the professional development of language teachers.

RESEARCH IN LAL

LAL as a concept seems to be more closely associated with language testers (Popham, 2009; Malone, 2013) and consequently, much of the research that has been carried out is related to this important group of stakeholders. However significant, and numerous, this group of stakeholders may be, research seems to suggest that the levels of LAL of teachers must improve. For example, Scarino (2013), who continuously worked with teachers at schools and used ‘collaborative dialogues’ with teachers as the primary source of data, observes that teachers were struggling with the construct of assessment on a theoretical, practical and institutional level. She stressed the need to develop LAL for teachers in the in-service training informed by a holistic approach that goes beyond a mere knowledge-based concept of LAL.

Hasselgreen, Carlsen, and Helness (2004) focused on previous training in LTA with three types of stakeholders as a critical parameter of LAL as well as their perceived training needs in various areas of LTA. Among the stakeholders were teachers, teacher trainers and testing experts (n=914) from Europe and beyond, with the majority of respondents coming from Finland, Sweden, and the UK. The results of the online survey revealed that all stakeholders seemed to lack formal education in LTA and expressed a need for training across the board.

In addition to the above, Fulcher (2012) identified the training needs of foreign language teachers (n=278) using an online survey. His findings suggest that language teachers are aware of assessment requirements that are not currently supplied in existing training materials and that there is a need for comprehensible and practical materials to enhance their assessment literacy. Kvasaova and Kavytska (2014) also targeted foreign language teachers (university level) in their effort to gauge their LAL shortcomings and to investigate their training needs in the field. Despite good competence levels in assessment-

related tasks such as using ready-made tests or providing feedback, Kvasova and Kavytska conclude that "overall assessment literacy has not yet reached an appropriately high level" (2014, p. 175).

In two recent studies, e.g. Tsagari and Vogt (forthcoming), Vogt and Tsagari (2014) the researchers considered current LAL levels of pre- and in-service foreign language teachers (FLTs) based on research findings conducted in several European countries. Both quantitative and qualitative data was collected in a mixed method approach via questionnaires (n=589) distributed to FLTs and interviews (n=63) with teachers. The data was analysed using descriptive and inferential statistics (frequency distributions, correlation analyses, regression analysis) and qualitative content analysis (following Mayring 2010).

Despite the small differences across countries, the results of these studies showed that only certain elements of teachers' LAL expertise are developed such as testing microlinguistic aspects (grammar/vocabulary) and language skills (e.g. reading and writing). LAL aspects such as compiling and designing non-traditional assessment methods (e.g. self-/peer-assessment or portfolio assessment), grading and placing students onto courses such as establishing quality criteria for assessments (e.g. validity, reliability or using statistics) are not. To compensate for insufficient training, teachers reported that they learn about LAL on the job or use teaching materials for their assessment purposes. Teachers overall expressed a need to receive training across the range of LAL features identified in the study with varying priorities depending on their local educational contexts.

The interview data yielded individual insights into perceptions and sensitivities of teaching professionals in their local contexts. Respondents in the study tended to revert to traditional assessment procedures that were mainly written and typically used similar assessment formats. Opinions were divided on the transparency of marking criteria for learners, ranging from rather positive statements to raised doubts and uncertainty caused by a lack of LAL in this area. Feedback procedures seemed to reflect a deficit-oriented approach rather than the more positively worded feedback that is inherent in the Common European Framework of Reference and its descriptors. Alternative forms of assessment have not yet entered mainstream assessment practices although once teachers in our sample have tried them out successfully, they realised their potential for assessment *for* learning.

Teachers also had no experience with standardized tests and were not in a position to evaluate them critically. Concepts related to LTA remained fuzzy to a substantial number of respondents in the study, which was attributable to low LAL levels. Consequently, teachers had difficulties in specifying their personal professional development needs although teachers in some contexts did identify urgent areas for training.

Empirical research in ‘test washback’ (the influence of tests on language teaching and learning, Alderson & Wall, 1993) painted a similar picture (Tsagari and Cheng, forthcoming). In Cyprus, research undertaken by Tsagari (2012; 2014) based on classroom observations and interviews with teachers preparing students for high-stakes English language exams (e.g. First Certificate in English, administered by Cambridge English Language Assessment) revealed that teachers were actively involved in the process of washback as they mediated between the test and the students. Teachers tried to operationalise the exam specifications into practical, exam-oriented language activities and develop students' test-taking strategies to meet the needs of their prospective candidates. However, teachers did not fully cover the exam requirements because they were not adequately trained in the provision of exam support. They used a limited range of techniques and were not always aware of the advice and variety of practical support provided in the FCE Handbook for Teachers, e.g. overemphasised grammar, frequently resorted to L1 to provide explanations and guidance, used L2 inappropriately at times, and provided students with ‘questionable’ tips, especially for speaking. Their language learning theory, evidenced in the continuous provision of specific language phrases, overemphasis on phrasal verbs and other grammar areas seemed to be that language learning is made up of a series of set phrases and language skills that, if used appropriately, would lead to success in the exam. As teachers explained, this was due to accountability reasons and fierce competition on the market of private institutions in the country (the higher the success in the exam, the better a school or teacher is).

DISCUSSION OF THE OVERALL FINDINGS

Overall, the results of the above studies show that there is indeed a variety of LTA purposes ranging from supporting language learning and instruction to meeting various stakeholders’ demands (e.g. Ministry, school principals, parents) placed on teachers for

data gathering of learner achievement. However, these purposes give rise to different teacher positioning in assessment. Teachers experience various roles which cover a continuum from teachers as 'supporters of language development' to teachers as 'examiners' and 'raters'. Nevertheless, in trying to maintain these roles, teachers also have to keep a balance between the need for summative assessment data of learner achievement for bureaucratic reporting purposes and language learning and instructional planning when preparing students for external exams.

In their multiple roles, teachers also seem to put an emphasis on 'what' students are able to achieve rather than 'how' they can be supported in their language learning leading teachers to an orientation towards 'language display' rather than 'language development opportunities' as noted by Rea-Dickins (2007). As a result, teachers fail to grasp the potential for a collaborative dialogue for formative assessment with their students through the development and use of innovative assessment practices.

In the studies referred to earlier, there is also evidence of the 'washback effect' (Alderson & Wall 1993; Tsagari, 2009) that prevails in the form of language testing practices associated with external measures of language performance. Teachers in the studies reported tried to operationalise high-stakes exam specifications into practical, exam-oriented language activities and develop students' test-taking strategies in order to meet the needs of their prospective candidates. However, this does not necessarily mean that exam requirements were fully covered by the teachers. As evidenced in the data analysed, teachers were not adequately trained in the provision of exam support. For example, they used a limited range of techniques and were not aware of the advice and variety of practical support provided in the exam Handbooks for Teachers, and provided students with 'questionable' tips, as in the case of speaking. Their language learning theory, as evidenced by the students, for example, focus on the continuous provision of specific language phrases. It seems that language learning for them is made up of a series of set phrases that need to be learned by heart (reminiscent of the early grammar-translation and behavioristic approaches to language teaching/learning). Though this practice might lead to success in the exam, it is doubtful whether it can be conducive to effective learning and communicative use of the language.

In addition, the results also showed that teachers are not accustomed to critically evaluating the assessment procedures they use in their classroom assessments and do not share these with peers. Finally, teachers' feedback mechanisms in place do not allow for constructive reflection on language performance as these take the form of a structured report, that is total test scores.

Therefore language assessment, at least in the educational contexts examined, is reduced to an assessment *of* learning (summative assessment) where learner performance is seen as a finished product rather than assessment *for* learning (formative assessment). These findings are troubling given that the international research literature proposes a synergy among the different types of assessment for improving student learning and achievement in schools (Black & William, 1998).

The evidence also showed that teacher education programs offered to EFL teachers do not provide adequate training in LTA. However, there are promising signs in the data that FL teachers are seriously thinking about their place within LTA, and are ready for greater levels of involvement in training initiatives to broaden and diversify their assessment literacy with varying priorities depending on contextual assessment requirements.

Attending to teachers' professional knowledge and practice in LTA as these were delineated in the studies I conducted will contribute towards the development of a dynamic and contextually sensitive assessment literacy culture in language education. The challenge undoubtedly lies in providing appropriate and available professional development opportunities for teachers to meet their assessment needs.

RECOMMENDATIONS ***FOR PROMOTING ASSESSMENT LITERACY***

So how can LAL be promoted? An assessment literacy development strategy could, for example, rely on a combination of the following in varying proportions. First of all, formal LTA courses (BA and MA level) can expose teachers not only to new ideas but help them to meet their professional assessment needs and responsibilities. Attendance of pre- and in-service LTA workshops (of appropriate length) are equally important.

However, such courses and workshops might fall short of meeting the professional development standards if they do not:

- capitalise on teachers' existing experience and practices and take into account results of assessment needs analysis such as the ones reported in this presentation,
- recognise and deal with the reality and constraints influencing teachers' assessment practices,
- encourage an action-research orientation to professional development,
- combine theories with practice in the classroom,
- involve policy and decision makers,
- involve teachers in collaborative assessment development projects (Stiggins, 2001) in which teachers, teacher trainers, and professional testers work together (Shohamy, 1992) and, finally,
- involve students (Stiggins, 2001) in assessment which can help them build their confidence and maximize their achievement.

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Sub-groups of Students with Special Learning Disorder Based on Reading and Orthographic Abilities: A Longitudinal Analysis

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Sub-groups of Students with Special Learning Disorder Based on Reading and Orthographic Abilities: A Longitudinal Analysis

ABSTRACT

Research has shown robust correlations between disabilities in reading and spelling, but it has not been examined how component reading and spelling skills develop among young learners of varying reading and spelling ability. Four groups were formed on the basis of two scores of word fluency and spelling criterion measures: (a) poor readers/poor spellers (PR/PS, n=11), (b) poor readers/good spellers (PR/GS, n=14), (c) good readers/poor spellers (GR/PS, n=14) and (d) good readers/good spellers (GR/GS, n=45). The groups were identified in grade 2 and compared retrospectively in kindergarten and grade 1 on the criterion measures as well as on linguistic and cognitive tasks. The effects of verbal and nonverbal ability, age, gender, and SES were controlled among the groups. Results showed that the PR/PS group exhibited greater dysfunction in reading and spelling compared to the single deficit and GR/GS groups. The three deficit groups were best differentiated in grade 2.

Keywords: Reading, Spelling, Special Learning Disorder, Young Learners, Sub-groups

INTRODUCTION

Recent studies investigating the nature, definition, and assessment of specific learning disabilities have focused not only on the role of reading, but also on the role of spelling (see Share, 2008 for a review). This shift in focus is based on the strong relationship that has been reported between reading and spelling skills in various stages of children's reading development (e.g., Leppänen, Niemi, Aunola, & Nurmi, 2006). In addition, it has been supported that not only these two skills are strongly correlated, but also the performance on reading can predict performance on spelling longitudinally (Deacon, Benere & Castles, 2011).

There are also researchers who have postulated that spelling and reading, even though they partly rely on common cognitive processes, they additionally build upon unique linguistic skills (e.g., Berninger, Cartwright, Yates, & Swanson, 1994; Nikolopoulos, Goulondris, Hulme, & Snowling, 2006). Hence, research has focused on the identification of the possible markers for reading and spelling disabilities in children of different ages (Landerl & Wimmer, 2008; Savage & Frederickson, 2006; Savage, Frederickson, Goodwin, Patni, Smith, & Tuersley, 2005). The strongest common predictors of reading and spelling difficulties that have been suggested are phonological awareness (the ability to perceive and manipulate the sounds of spoken words) and rapid automatized naming (RAN: the ability to name as quickly as possible serially presented, familiar symbols). Generally, it can be observed that reading and spelling skills shared some common predictors, but the role or the significance of these predictors on children's reading or spelling performance tended to be different.

LITERATURE REVIEW/THEORETICAL BACKGROUND

Overall, there are very few studies that have investigated the markers for reading and spelling difficulties longitudinally in large unselected samples with young readers. For example, Papadopoulos, Georgiou and Kendeou (2009) examined the role of phonological ability, rapid automatized naming and their combination in reading and spelling disabilities in a large unselected sample that was followed from kindergarten through grade 2. The authors reported that naming speed and phonological skills contributed differently to the identification of poor reading and spelling, at different points of children's development. Specifically, phonological ability was found to predict reading difficulties by 6 or 7 years of age, whereas RAN deficits were found to be more persistent. In addition, RAN was a stronger predictor for word and text reading fluency, while phonological ability was a stronger predictor for spelling and word reading accuracy (until Grade 2). However, there is no study that we know of that has investigated the markers for reading and spelling disabilities with young readers of varying reading and spelling ability in early years.

Similarly, it has been supported that the cognitive bases of reading and spelling may change developmentally at different points of literacy acquisition (that is, beginning

or experienced level in reading and spelling). Vaessen and Blomert (2013) found that in young students (first grades of primary school), phonological awareness and letter-sound matching skills contributed to both reading and spelling performance. However, in more experienced readers and spellers (older students of primary school), the above skills continued to predict only spelling and not reading performance. Moreover, while RAN was not a strong predictor of spelling performance in any of the grades in primary school, it had an increasing influence on reading performance. The authors concluded that RAN is a cognitive skill that is unique to reading and that the relationship between reading and spelling performance decreases over time.

Researchers have also suggested that dissociations between reading and spelling are possible, although they may be difficult to explain. To our knowledge, two recent studies (Moll & Landerl, 2009; Wimmer & Mayringer, 2002) have investigated the possible dissociations in German, a language with a relatively consistent orthography, but complex syllabic structure (see Seymour, Aro & Erskine, 2003 for orthographies' classification relative to the dimensions of syllable structure). Both studies supported a double dissociation between reading and spelling difficulties and identified groups of children with a single deficit in reading (especially in fluency) or in spelling. They also included one group with combined deficits in reading and spelling, as well as a control group with no deficits.

The above studies supported the idea that there can be isolated as well as combined deficits in reading and spelling ability. Thus, it is possible to meet children who are poor at both reading and spelling, but also children who have difficulties only in one of these two skills. There was also an attempt to investigate the linguistic or cognitive processes that lead to these dissociations. However, even though previous research has established the first support for the double dissociation, additional evidence is needed from future research. This paper aims to identify new directions for research into the possible dissociation between reading and spelling deficits and suggest ways these new directions can be achieved by providing relevant evidence.

More specifically, the present study aims to shed light on the issue of the possible dissociation between reading and spelling by investigating the linguistic and cognitive profiles of early readers who can be systematically distinguished on the basis of their

reading and spelling performance. Thus, the purpose of the present study is threefold. First, it aims to examine the cognitive and linguistic profiles among young children of varying levels of reading and spelling skills. Second, it intends to draw practical conclusions about how to distinguish poor readers from poor spellers and their comorbid groups using specific cognitive and linguistic measures, depending on children's age. This is expected to be a useful contribution to the assessment of reading and spelling disabilities at the first stages of children's literacy acquisition. Third, this study aims to examine the possible dissociation between reading and spelling deficits in various stages of development, that is to search for groups of children that might have isolated deficits either in reading or spelling and to examine if this pattern of dissociation is stable from kindergarten through grade 2.

Thus, the following hypotheses can be formulated: (a) since both reading and spelling require the mapping of speech to script and vice versa, it is likely that these skills – at least partly – build upon shared cognitive mechanisms; (b) the impact of cognitive skills on reading and spelling performance might change developmentally and might be confounded to language transparency. This means that the use of different cognitive and linguistic measures for diagnostic purposes at different stages of children's development may be deemed necessary in a transparent language (Greek); finally, (c) the dissociation between reading and spelling deficits is expected to be more prevalent in Grade 2 than earlier. This is expected given the adequate level of literacy skills that children attain by Grade 2.

METHODOLOGY

Participants

The sample of the present study consisted of 289 children coming from typical schools in Cyprus that traditionally collaborate with the University of Cyprus for research purposes. These children were followed from kindergarten to the second Grade. At the time of recruitment, the mean age of the participating group (145 girls and 144 boys) was 5 years 10 months ($SD = 0.31$ years). The parents of the participating group had predominantly low levels of education: 59.5% were high school graduates, whereas 40.5% were college or university graduates. Participants were native Greek speakers with

no reported history of speech, language, or hearing difficulties. From these children, four groups were formed, on the basis of a stepwise group selection process, as described below.

Step1 for group selection. The initial step for group selection was based on the criterion variables, namely, reading (real- and non-word fluency tasks) and spelling (orthographic choice and 2-minute spelling) tasks. Four groups of children were formed based on their scores on these variables in Grade 2. We used the same cutoff scores (the 16th percentile) as in similar previous studies (e.g., Moll & Landerl, 2009) to identify the groups with deficits. Therefore, for a participant to be classified as poor reader/poor speller, s/he had to score below the 16th percentile in both reading and spelling tasks. For a participant to be classified as poor reader/good speller, s/he had to score below the 16th percentile only in the reading tasks (either in word reading fluency or in non-word reading fluency). For a participant to be assigned to the good reader/poor speller group, his/her scores had to fall below the 16th percentile only in the spelling tasks (either in orthographic choice or in 2-minute spelling). Finally, those participants scoring above the 16th percentile in both reading and spelling were included in the control group.

Step2 for group selection. To ensure that reading and spelling deficits were not confounded with intelligence deficits or demographic variables, this second step for group selection involved the matching of groups on verbal (Similarities and Vocabulary, *Wechsler Intelligence Scale for Children—Third Edition, Revised*, Wechsler, 1992; Greek adaptation by Georgas, Paraskevopoulos, Bezevegis, & Giannitsas, 1997) and nonverbal (Matrices, *Das-Naglieri Cognitive Assessment System*, Naglieri & Das, 1997; Greek adaptation by Papadopoulos, Georgiou, Kendeou, & Spanoudis, 2008) ability measures. This was achieved after excluding from the sample those participants who scored lower than the 15th percentile and higher than the 85th percentile on these measures. Groups were also equivalent on age, parental education, and gender. The final four groups were as follows: (a) $n = 11$ (3.80%) were identified as poor readers/poor spellers, (b) $n = 14$ (4.80%) as poor readers/good spellers, (c) $n = 14$ (4.80%) as good readers/poor spellers and finally, (d) $n = 45$ (15.60%) as good readers/good spellers.

Measures

Phonological Ability

The participants' phonological skills were assessed using five tasks that contain common words but differ in complexity. They have been used in several recent studies in Greek, after extensive development, validation, and standardization (e.g., Papadopoulos, Georgiou, & Kendeou, 2009; Papadopoulos, Kendeou, & Spanoudis, 2012), yielding high internal consistency. Three of these tasks measured phonological ability at the syllabic level (Initial Syllable Oddity, Rhyme Oddity and Syllable Segmentation). The remaining two tests measured phonological ability at the phonemic level (Phoneme Elision and Sound Isolation). In all instances, the participants' score was the total number of correct responses.

Rapid Automatized Naming

This set of tasks was originally developed and used by Papadopoulos, Charalambous, Kanari, and Loizou (2004). Each measure consisted of two tasks, which differed in difficulty, and each task was made up of 20 testing items (five different stimuli, each repeated four times). The children were asked to name, as quickly as they could, these 20 items that were appearing in a single page. The score for each measure was the ratio between the correctly named items and the time taken for naming. RAN-Digits and RAN-Letters were used in all analyses performed in Grades 1 and 2, whereas in kindergarten RAN-Colors and RAN-Pictures were used instead.

General cognitive ability

Verbal ability was assessed with Similarities and Vocabulary from the WISC-III (Wechsler Intelligence Scale for Children—Third Edition, Revised, Wechsler, 1992; Greek adaptation by Georgas, Paraskevopoulos, Bezevegis, & Giannitsas, 1997) and nonverbal ability was assessed using the Matrices from Das-Naglieri Cognitive Assessment System (DN-CAS; Naglieri & Das, 1997).

Information-processing tasks

Four tests were taken from the Das-Naglieri Cognitive Assessment System, which is based on the PASS (Planning, Attention, Simultaneous, and Successive) theory of cognitive processing. This set of tests has undergone standardization in Greek by Papadopoulos, Georgiou, Kendeou, and Spanoudis (2008). Two of the tasks assess simultaneous processing (verbal spatial relations and figure memory), whereas the other

two tasks assess successive processing (speech rate and non-sense sentence repetition and sentence questions) (for an extensive review see Papadopoulos, 2013).

Reading

Word reading was assessed with two tasks taken from the Early Reading Skills Assessment Battery (ERS-AB; Papadopoulos, Spanoudis, & Kendeou, 2008). In both tasks (word identification and word attack), the instruction to the participants was to read the entire list of words. The reading speed (fluency) score, that is, the number of words read correctly within 60 seconds, was used for the present study.

Spelling

Orthographic ability was assessed using two tasks: Orthographic choice [adapted by Papadopoulos et al. (2009) from the work of Olson and colleagues (e.g., Olson, Forsberg, Wise, & Rack, 1994) and Two minute spelling (dictation) (taken from the Dyslexia Screening Test-Junior; Fawcett & Nicolson, 2004; *Greek standardization*: Papadopoulos, Georgiou, & Spanoudis, 2008). The first task assesses spelling skills at recognition level and the second task assesses spelling skills at recall level.

Passage Comprehension

Two tasks were used for the measurement of passage comprehension: Cloze (adaptation of the Woodcock Reading Mastery Tests–Revised-WRMT-R; Woodcock, 1987) and Maze (part of the Curriculum Based Measurement-CBM; Deno, 1985; Espin & Foegen, 1996). In both tests, children were asked to fill in words that were missing from texts. However, in Maze, participants had a time limit (one minute) to complete the task.

Procedure

In all three assessments, participants were tested individually in a session lasting approximately 60 minutes, between February and April each year. All testing took place during school hours in a private room in the participants' respective schools.

Experimenters were trained graduate research assistants enrolled in educational psychology courses, blind to grouping of children. None of the participants in the deficit groups received systematic intervention in their respective schools over the course of the study. Written permission from schools and parents was obtained prior to testing.

RESULTS

In Grade 2, a series of MANOVAs was performed with group as a fixed factor and selection criteria (Word reading fluency, Orthographic processing) or dependent measures (Phonological ability, Rapid automatized naming, Cognitive ability-Information Processing, Reading comprehension) as the dependent variables.

The findings in Grade 2 showed that the single deficit in spelling abilities had a limited negative effect on naming speed, on reading comprehension performance requiring a speeded response, and on figure memory. Moreover, it was shown that the single deficit in word reading fluency had a negative effect on sound isolation, naming speed, and reading comprehension performance also requiring a speeded response. The group exhibiting significant deficits on both reading and spelling was found to be the most impaired group, as the performance of this group was significantly lower than that of the control group on all of the dependent measures. Interestingly enough, no robust differences were observed among the deficit groups, except for sound isolation, where PR/GS scored significantly lower than GR/PS and PR/PS. Group comparisons in Grade 2 are shown on Table 1.

Table 1. Descriptive scores and F values for the four groups' performance on Linguistic, Cognitive, Reading and Orthographic Measures in Grade 2.

	PR/PS (n = 11)		PR/GS (n = 14)		GR/PS (n = 14)		GR/GS (n = 45)		F Value
	M	SD	M	SD	M	SD	M	SD	
<i>Selection Criteria</i>									
<i>Reading fluency</i>									
WID fluency	31.09	2.34 _{c, d}	30.21	5.18 _{c, d}	38.50	3.98 _d	48.36	5.67	68.75***
WAT	17.91	6.19 _{c, d}	18.5	2.82 _{c, d}	23.14	3.68 _d	27.49	3.39	31.74***
fluency									
<i>Orthographic processing</i>									
OC	9.00	1.79 _{b, d}	11.79	1.58 _c	9.64	2.34 _d	12.89	1.39	24.60*
TMS	2.36	1.36 _{b, d}	4.50	2.41 _c	2.14	1.70 _d	4.98	2.33	9.44*
<i>Dependent Measures</i>									
<i>Phonological Ability</i>									
Rhyming	10.55	2.98	10.14	5.13	9.07	4.16	11.53	3.93	1.45

ISO	6.55	3.05	7.21	4.37	7.14	3.37	8.64	4.07	1.31
SI	13.82	1.08 _b	11.86	2.88 _{c, d}	13.71	1.33	14.18	.81	9.04***
PE	10.09	3.05 _d	10.36	5.33	11.29	4.08	13.33	1.86	5.28**
<i>RAN</i>									
RAN digits	1.71	.23	1.64	.21	1.61	.63	1.82	.39	1.38
RAN letters	.59	.22 _d	.57	.27 _d	.59	.21 _d	.86	.33	6.27**
<i>Information Processing</i>									
VSR	11.45	5.15	13.14	2.60	12.14	2.25	14.23	1.84	4.49**
FM	7.09	3.42	8.14	2.71	7.14	2.17 _d	9.50	2.73	4.16**
SRE	5.45	1.57 _d	6.50	2.88	6.36	2.02	7.47	2.03	3.17*
SR	125.00	26.58	148.14	22.10	128.50	20.85	127.61	23.64	1.88
<i>Reading comprehension</i>									
WJPC	21.55	7.08 _d	23.36	7.72	24.93	4.62	26.69	4.58	3.18*
MAZE	1.39	2.11 _d	1.74	1.50 _d	1.60	1.63 _d	3.20	1.53	6.91***

Note. WID = Word Identification; WAT = Word Attack; OC = Orthographic Choice; TMS = Two-minute Spelling; ISO = Initial Syllable Oddity; SI = Sound Isolation; PE = Phoneme Elision; RAN = Rapid Automatized Naming; VSR = Verbal Spatial Relations; FM = Figure Memory; SRE = Sentence Repetition; SR = Speech Rate; WJPC = Woodcock Johnson Passage Comprehension; Maze = CBM-Maze; PR/PS = Poor Readers/Poor Spellers group; PR/GS = Poor Readers/Good Spellers group; GR/PS = Good Readers/Poor Spellers group; GR/GS = Good Readers/Good Spellers group.

* $p < .05$; ** $p < .01$; *** $p < .001$

Similarly, in Grade 1, a series of MANOVAs was performed with group as a fixed factor and selection criteria (Word reading fluency, Orthographic processing) or dependent measures (Phonological ability, Rapid automatized naming, Cognitive ability-Information Processing, Reading comprehension) as the dependent variables.

In short, results regarding the criteria measures in Grade 1 showed that the deficit groups had a statistically significant lower performance than the control group on reading fluency measures, whereas the four groups of children (PR/PS, PR/GS, GR/PS, and GR/GS) did not differ significantly in their performance on orthographic processing. Concerning the dependent measures in grade 1, it was found that a single deficit either in reading or in spelling had a negative effect in performance on phoneme elision and on rapid naming. In addition, it was shown that the group with deficits in both reading and spelling had a negative effect in performance on rapid naming and on figure memory. There were found no significant differences among the deficit groups. All group comparisons in Grade 1 are shown on Table 2.

Table 2. Descriptive scores and F values for the four groups' performance on Linguistic, Cognitive, Reading and Orthographic Measures in Grade 1.

	PR/PS (n = 11)		PR/GS (n = 14)		GR/PS (n = 14)		GR/GS (n = 45)		
	M	SD	M	SD	M	SD	M	SD	F Value
Reading fluency									
WID fluency	16.82	5.44 _d	16.29	4.83 _d	19.78	7.68	23.00	7.17	5.04**
WAT	13.27	5.50	11.64	3.43 _d	13.36	4.73	16.38	5.07	4.31**
fluency									
Orthographic									
Processing									
OC	8.00	.89	7.86	1.96	8.57	2.56	9.02	1.86	1.77
Phonological Ability									
Rhyming	9.73	4.36	8.57	5.09	7.57	4.62	8.91	4.71	.47
ISO	4.45	2.38	5.21	3.77	3.07	2.43	5.47	2.94	2.47
SI	12.64	2.94	10.64	4.50	11.57	3.137	12.24	3.47	.93
PE	8.27	4.45	5.21	4.93 _d	7.21	5.04 _d	10.49	2.87	7.66***
RAN									
RAN pictures	.60	.13 _d	.60	.19 _d	.57	.17 _d	.75	.14	7.50***
RAN letters	1.22	.23	1.18	.33	1.28	.31	1.42	.29	3.03***
Information Processing									
VSR	11.91	1.64	12.43	3.03	10.50	4.07	12.29	2.15	1.78
FM	4.55	1.63 _d	5.93	2.62	5.50	2.10	6.78	2.51	3.11*
SRE	5.00	1.73	6.57	2.24	4.79	1.63	5.96	2.13	2.47
SR	169.00	36.33	177.50	47.06	170.14	41.68	162.78	36.26	.55
Reading comprehension									
WJPC	14.82	7.03	16.14	5.55	13.86	7.76	17.27	6.83	1.07

Note. Subscript letters indicate that group means differ significantly between each other; group comparisons are marked from left to right only: WID = Word Identification; WAT = Word Attack; OC = Orthographic Choice; TMS = Two-minute Spelling; ISO = Initial Syllable Oddity; SI = Sound Isolation; PE = Phoneme Elision; RAN = Rapid Automatized Naming; VSR = Verbal Spatial Relations; FM = Figure Memory; SRE = Sentence Repetition; SR = Speech Rate; WJPC = Woodcock Johnson Passage Comprehension; PR/PS = Poor Readers/Poor Spellers group; PR/GS = Poor Readers/Good Spellers group; GR/PS = Good Readers/Poor Spellers group; GR/GS = Good Readers/Good Spellers group.

* $p < .05$; ** $p < .01$; *** $p < .001$

Finally, in kindergarten, a series of MANOVAs was performed with group as a fixed factor and selection criteria (Word reading fluency) or dependent measures (Phonological ability, Rapid automatized naming, Cognitive ability-Information Processing) as the dependent variables. Overall, for the measures that were administered

in kindergarten, the only statistically significant difference among the four groups (PR/PS, PR/GS, GR/PS, and GR/GS) was found on RAN measures, where the PR/PS group scored significantly lower than the GR/GS group on RAN colors. Group comparisons in kindergarten are shown on Table 3.

Table 3. Descriptive scores and F values for the four groups' performance on Linguistic, Cognitive, Reading and Orthographic Measures in kindergarten.

	PR/PS (n = 11)		PR/GS (n = 14)		GR/PS (n = 14)		GR/GS (n = 45)		
	M	SD	M	SD	M	SD	M	SD	F Value
<i>Reading fluency</i>									
WID fluency	.00	.00	.14	.53	.93	2.73	1.38	4.39	.76
WAT	.00	.00	.07	.27	1.14	2.77	1.36	4.33	.83
fluency									
<i>Phonological Ability</i>									
Rhyming	4.64	4.52	6.00	4.50	6.14	4.83	6.56	4.82	.49
SY	5.45	4.16	8.57	4.10	8.00	5.32	8.38	5.14	1.14
OR	6.73	5.82	9.21	5.13	8.43	4.27	9.47	4.65	1.01
SI	2.09	2.30	3.21	3.60	2.57	3.32	2.82	3.85	.22
PE	.45	1.21	.29	.83	.86	2.93	1.33	3.27	.69
<i>RAN</i>									
RAN colors	.40	.13 _d	.46	.17	.51	.18	.62	.23	4.71***
RAN	.54	.14	.55	.16	.61	.15	.65	.17	2.46
pictures									
<i>Information Processing</i>									
VSR	10.27	3.10	10.85	2.30	10.71	2.27	10.41	2.76	.15
FM	4.09	2.34	4.31	1.55	5.14	1.99	5.07	2.56	.83
SRE	4.00	1.26	5.92	3.07	4.50	1.51	5.14	2.27	1.81
SR	221.55	24.50	199.00	39.12	198.21	30.81	199.93	38.13	1.23

Note. Subscript letters indicate that group means differ significantly between each other; group comparisons are marked from left to right only: WID = Word Identification; WAT = Word Attack; SY = Syllable; OR = Onset Rime; SI = Sound Isolation; PE = Phoneme Elision; RAN = Rapid Automatized Naming; VSR = Verbal Spatial Relations; FM = Figure Memory; SRE = Sentence Repetition; SR = Speech Rate; PR/PS = Poor Readers/Poor Spellers group; PR/GS = Poor Readers/Good Spellers group; GR/PS = Good Readers/Poor Spellers group; GR/GS = Good Readers/Good Spellers group.

* $p < .05$; ** $p < .01$; *** $p < .001$

CONCLUSIONS

The present study examined the possible dissociations between reading and spelling by investigating the linguistic and cognitive profiles of early readers who were systematically distinguished on the basis of their reading and spelling performance. It is one of the first studies that examined these dissociations and their linguistic or cognitive bases in young learners at the first stages of literacy acquisition (kindergarten through Grade 2) and provides relevant findings for a language with simple syllabic structure and consistent orthography (Greek).

The results generally confirmed our hypotheses and covered the aims of the study. In relation to the first aim of the study, the four groups of children (PR/PS, PR/GS, GR/PS, and GR/GS) were compared on several dependent measures, both linguistic (phonological ability, RAN, reading comprehension) and cognitive (verbal spatial relations, figure memory, speech rate, sentence repetition). This is an addition to previous research on double dissociation (Moll & Landerl, 2009; Wimmer & Mayringer, 2002), which used mainly linguistic measures that were not sufficient enough to identify the common or unique bases of reading and spelling deficits. Moreover, the identification of the poor readers or poor spellers in the present study includes a broader range of children with difficulties in reading (decoding and/or sight word reading) and in spelling (at recognition and/or recall level).

Concerning the second aim of the study, the results provide practical implications for distinguishing groups of children with varying reading and spelling abilities in early years of literacy acquisition. Our second hypothesis was confirmed, since the impact of linguistic and cognitive skills on reading or spelling difficulties differed from grade to grade. In Grade 2, more linguistic (phonological ability on the phonemic level, rapid naming-RAN letters, reading comprehension) and cognitive (verbal spatial relations, figure memory, sentence repetition) measures may be useful in identifying groups of children with deficits, comparing with Grade 1 (where many measures were not useful, e.g. reading comprehension) and kindergarten (where only RAN colors was a useful measure for the identification of reading and spelling difficulties).

As far as the third aim of the study is concerned, it can be inferred that there is dissociation between reading and spelling deficits, as linguistic and cognitive profiles of children with varying reading and spelling ability do not stay stable over time. Indeed,

deficits are a matter of both degree and type, since children's difficulties are presented in more linguistic or cognitive areas and become more serious over time. Interestingly, even differences in reading and/or spelling skills among the groups that were identified in Grade 2 were not obvious in kindergarten. In addition, our third hypothesis was confirmed, as the dissociation between reading and spelling deficits becomes more prevalent in Grade 2, when children are expected to have attained an adequate level of reading and spelling skills. This is supported, because differences were clearer among the groups in Grade 2 than earlier, based on their performance on linguistic and cognitive measures.

To sum up, the present study provides evidence for the double dissociation between reading and spelling deficits, in young readers and spellers in a language with consistent orthography (Greek). What this study has added to previous research on double dissociation is a more thorough investigation of the linguistic and cognitive profiles of younger children with varying reading and spelling ability.

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What kind of Literacy do we need in the 21st century?
From digital literacy towards media and information literacy

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What kind of Literacy do we need in the 21st century?

From digital literacy towards media and information literacy

ABSTRACT

Media and information literacy is a key competency in the 21st-century knowledge societies. It is much more than just knowing to use the digital technology. The media and information literate person knows how to learn, how knowledge is organized, and how to find, select, evaluate, organize and use information. A nationwide survey was carried out in 2014 on information competencies involving university students in Hungary. We wanted to know how students get information for their studies, what their main resources are, which information seeking methods they use, and how they select and evaluate information. We got 2599 answers; our survey is not representative but significant. We would like to support the work of school librarians with 30 pilot programs for reading and information literacy development, and have a collection of national and international good practices.

Keywords: Media and information literacy, best practices, survey, Hungary

INTRODUCTION

Since the mid-20th-century technology, economics and culture and their effect on each other have been rapidly changing. People need to adapt constantly to the changing environments, equipment, conditions, and opportunities. The question is how this is done - how to face constant challenges, and what skills, abilities, and competencies are needed to be able to progress in the information society and the digital world.

Media and information literacy is a key competency in the 21st-century knowledge societies. It is much more than just knowing to use digital technology. The media and information literate person knows how to learn, how knowledge is organized, and how to find, select, evaluate, organize and use information.

As we go deeper and deeper into the information society, we always find new ways to access information. The media, the Internet, the web 2.0 (even web 3.0), the social sites, etc. are totally transforming our habits of getting new information. Young people get the latest news, not from the newspapers, but from YouTube, blogs, and comments, the main ways of opinion forming are the forums, where one can be involved in discussions with not known people.

Parents and teachers like to blame the young generation because they do not read, they are not literate. We must look another way at this question: What are the reading habits of the new generations? Do they really read less, or only in a different way? If we are honest, we have to confess to ourselves: Our children are reading a lot, maybe more than we did, but they read different things in a different way than we are used to. They read SMS, Facebook, homepages, computer games, etc. They get an enormous amount of information in a very short time. The problem is that they don't know what to do with this information. Our task is to teach them how to select, organize and evaluate the information, how to find the value. It is something very different than just teach them how to read. This is a new way of learning; this is media and information literacy.

LITERATURE REVIEW/THEORETICAL BACKGROUND

The meaning of the term literacy is constantly changing in different cultures. In English culture, it has a strong and stable meaning, but for example, in Eastern and Central Europe, the term has a controversial life. (Varga, 2013) In most European countries people don't like to mix the traditional literacies and cultures with the modern digital competencies. There are strong debates around the terms: literacy, competency, information, digital, etc. (Koltay, Varga, 2013)

Information literacy is not a new topic, especially in the field of library and information science, but in Eastern-European countries, it does not manifest in public education and higher education programs. Education policy makers are dealing only with the problems of digital literacy and do not want to take into consideration, that it is necessary to have much broader information competencies in order to survive in the 21st century. "Finding and using information is exponentially more complex than it was a

generation ago as the information landscape has shifted from one, of scarcity of resources, to abundance and overload.” (Head, 2013)

Not only must the idea of digital literacy find its place among information literacy, computer literacy, ICT literacy, e-literacy, network literacy, and media literacy, but it must also be matched against terms which avoid the “literacy” idea, such as informacy and information fluency. Indeed in some cases, the mentioning of ‘information’ or anything similar word is avoided—particularly in the workplace settings—as in “basic skills,” “Internet savvy,” or “smart working.” (Robinson et al., 2005)

In Hungary, the digital pillars of information society have not been adequately considered as a complex entity. The structured foundation and the development of information literacy have not been achieved. One reason for this is that the concept of information literacy still has not taken root. It is neither part of the education policy nor of normative documents as regards public, higher and adult education. The complex foundation and the development of information literacy are not prioritized within the goals of public and higher education; therefore, information literacy has not had a chance to take a hold in educational practices. The first task is the complex interpretation of the concept of information literacy, which will allow for the term to become more prevalent, and it would also facilitate implementing it in practice (Egervári, 2014).

Media and information literacy is a broad concept, consisting of different other literacies and competencies. We can speak about information literacy, only if all these elements are together at the same time. In the figure and table below you can trace the basic requirements and related competencies.

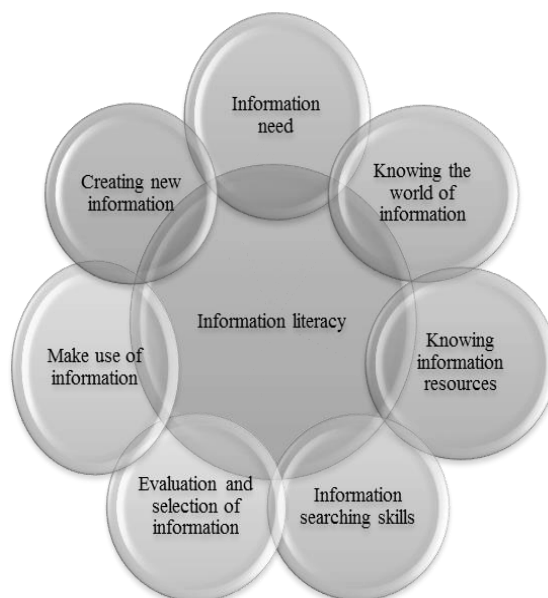


Fig. 1. The model of information literacy (Varga, 2013)

Requirement	Competencies
Recognition of the information need	<ul style="list-style-type: none"> • Self-evaluation • Problem-solving competencies • Intelligence • Curiosity
Knowing the world of information	<ul style="list-style-type: none"> • Concept of information • Information formats • Measuring quality and quantity of information • Knowing the significance of information
Knowing the nature of information resources	<ul style="list-style-type: none"> • Basic literacy • Media literacy • Library literacy • Internet literacy • Web 2.0 literacy
Information searching competencies	<ul style="list-style-type: none"> • Text comprehension • Reading ability • Searching for information in library material • Digital literacy • Searching in databases • Searching on the internet • Using Boolean operators and information retrieval tools

	<ul style="list-style-type: none"> • Handling the data structures • Search strategies and tactics • Evaluating search results
Evaluation and selection of information	<ul style="list-style-type: none"> • Recognizing quality information • Concept of credibility • Concept of reliability • Concept of Objectivity • Critical thinking • Arguing and discussion skills
Make use of information	<ul style="list-style-type: none"> • Application of research methods • Creativity • Being Innovative • Ethical issues <ul style="list-style-type: none"> ○ Citing rules ○ Plagiarism ○ Copyright
Creating new information	<ul style="list-style-type: none"> • Text composition • Presentation skills • Artistic, creative skills

Tab 1. Requirements and competencies of information literacy (Varga, 2013)

Media and information literacy is defined as a set of competencies that empowers citizens to access, retrieve, understand, evaluate and use, to create, as well as share information and media content in all formats, using various tools, in a critical, ethical and effective way, in order to participate and engage in personal, professional and societal activities. For creating sufficient media and information literacy environment several required actions are necessary at national level:

- The inclusion of mandatory courses on media and information literacy in the official curriculum, particularly in secondary school and in the teacher training curriculum;
- The existence of training programs to specialize teachers for teaching media and information literacy;
- Specific programs specialized in media and information literacy studies.

METHODOLOGY

In Hungary 7 higher education institutions are offering BA and MA programs in library and information science. Library and Information Science (LIS) schools in Hungary work with the same core curriculum, which is supplemented by different specializations. All of these institutions use state of the art curricula, which include a substantial number of ICT modules. Hungarian LIS students are well trained in digital literacy and can attend high-quality courses on reference work.

A specialization in media and information literacy is offered in the LIS BA program at the University of Pécs. This program emphasizes the importance of a critical approach towards information and information resources and teaches strategies for information retrieval, legal and ethical questions of the use of information. These courses' aim is to develop students' consciousness of information literacy and to prepare them for teaching the competencies of information literacy in schools and libraries. They learn the basic terminology and components of media and information literacy, critical thinking, teaching methods, project management, as well as some school library issues. Many of these students choose a topic for their Thesis from the field of information literacy, so there is high-quality work done on these topics. Several students surveyed information literacy skills of fellow students, who study at different faculties of the university. The results of these surveys form the basis of a recent research project, which aims at revealing the current situation and is directed towards outlining a new information literacy strategy for the country. (Sipos, 2008)

A nationwide survey was carried out in 2014 on information competencies of university students in Hungary. We wanted to know how students get information for their studies, what their main resources are, their information seeking methods, how they select and evaluate information. We got 2599 answers; our survey is not representative but significant. The respondents came from all over the country; they are students from different universities and colleges.

The questionnaire consisted of 64 questions. In the introductory part, we asked about basic demographic issues: age, gender, living conditions, professional status, university studies, monthly income, etc. We wanted to know what kind of ICT devices they have, how big is their home library, what they are doing in their free time. The main questions focused on the information seeking habits of the students: where they get the

most important information from, how they select, how much time and money they spend on information gathering, what they use the internet resources for, etc. We also asked about their habits concerned with the library use. We wanted to know how they decide if a resource is reliable or not, what type of information resources they trust and why. One of the most interesting questions was about what the main difficulties students face during research for a project.

RESULTS

During their studies, students have some assignments that require competent literature searching and analysis. They like these assignments, and they do not feel any difficulty related to them. They also acquire substantial experience in making presentations and have many opportunities to apply updated digital technologies.

At the same time, the results show that there are big problems with the knowledge and competencies of our students. Only 1/3 of them apply information literacy competencies (e.g. search strategies) in their work. They have quite weak knowledge about professional information resources (databases), their main information resource is the internet, and the main information retrieval tool is Google. The complex competencies of information literacy are not known for them, and very often they ignore planning before an information solving problem.

The most frequently used resources for learning are the classroom materials, notes, and textbooks. Printed books are still quite popular learning resources, but journal articles are less frequently used.

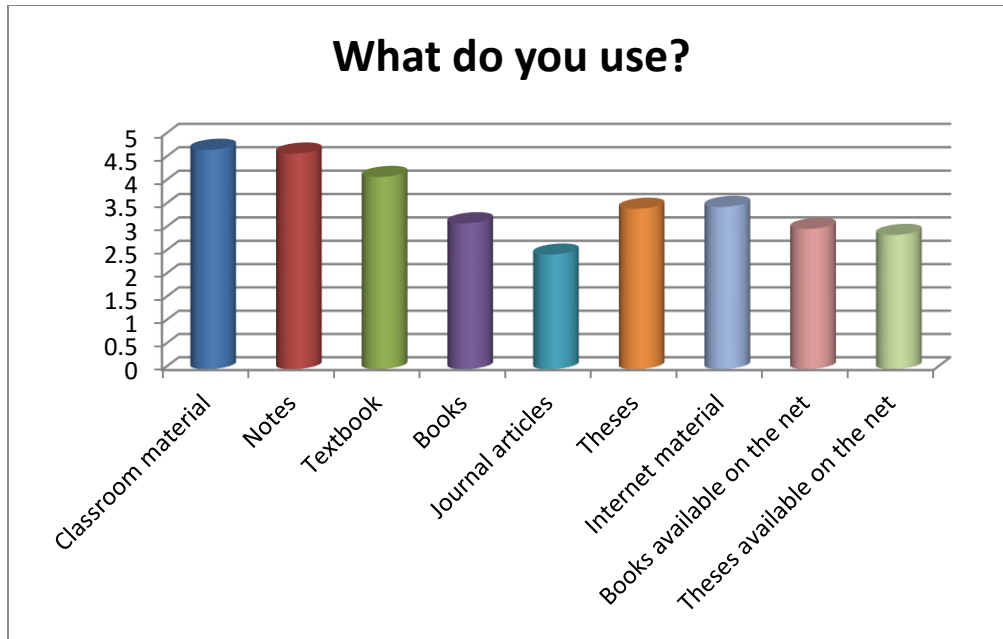


Fig. 2. What resources are used for the studies?

It is very interesting that the most frequently used sources of information are not the books, or the media, or even the Internet, but the social relations, friends, and colleagues. Media is not very much used as an information resource by the young generation.

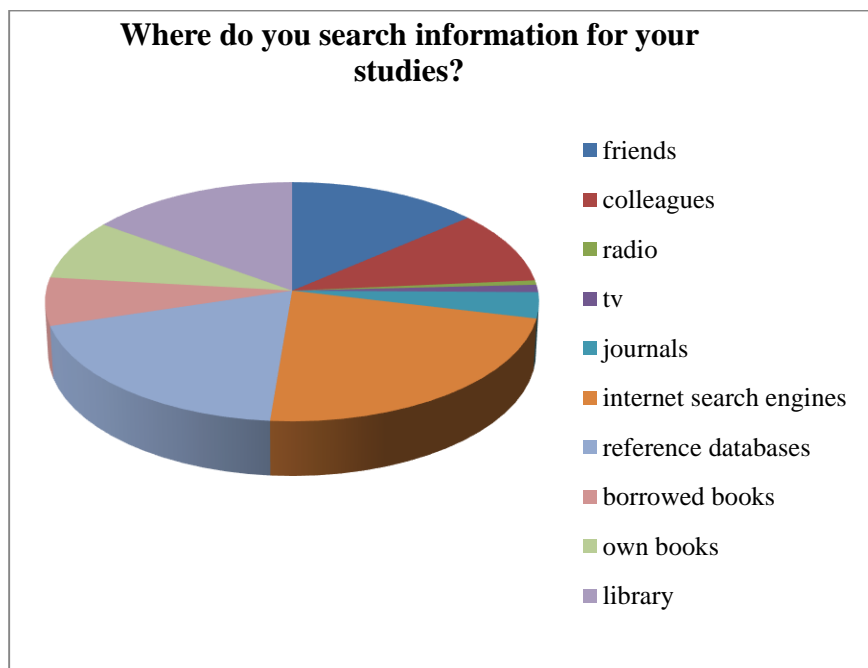


Fig. 4. Most frequent professional information resources

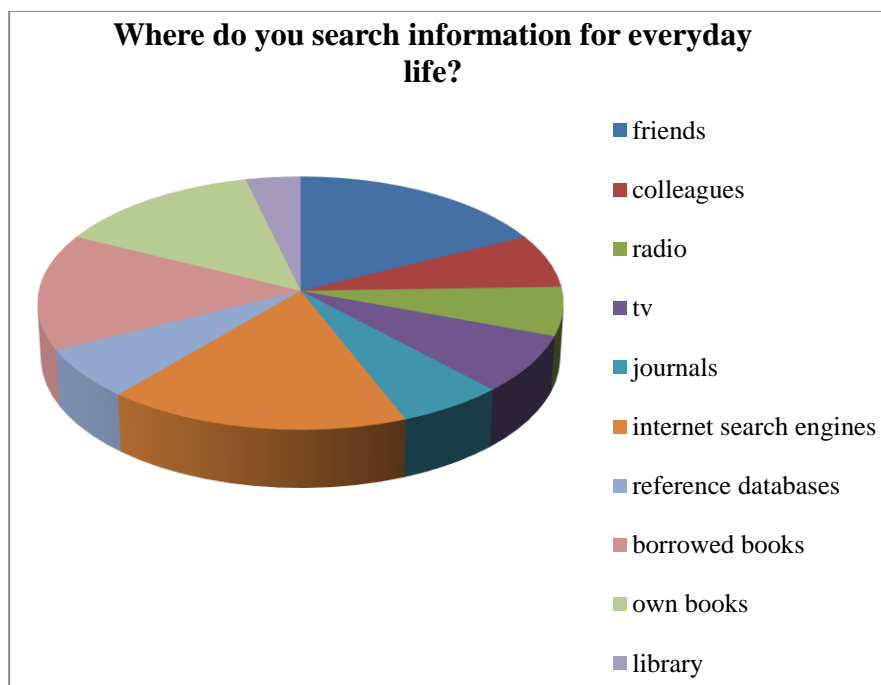


Fig. 3. Most frequent everyday information resources

Students use the Internet mainly for social interaction and learning, and less for getting political or economical information.

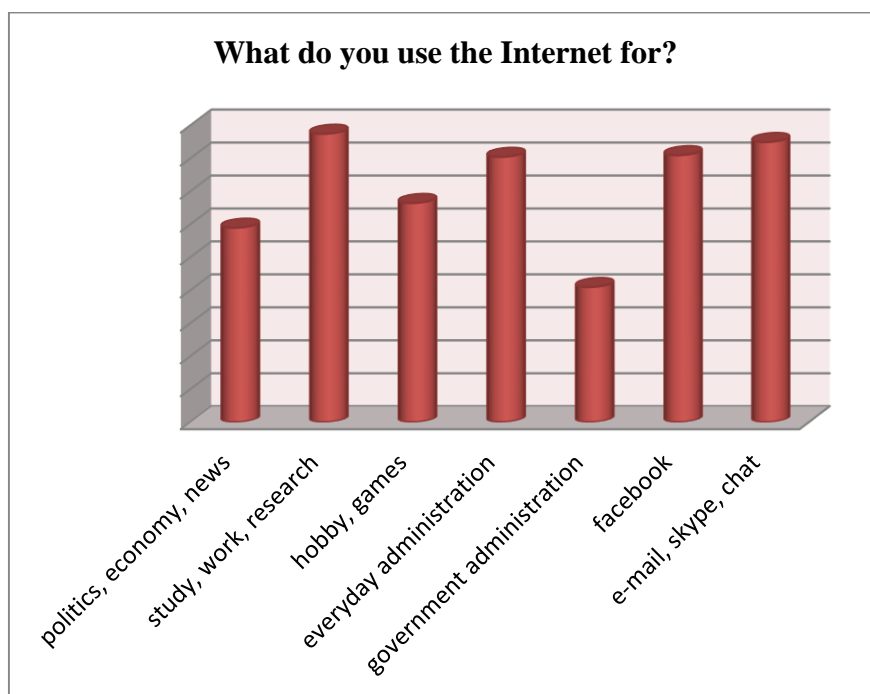


Fig. 5. The aims of Internet usage

The majority of the students doesn't apply search strategies; they don't use more than one search option. A lot of respondents said they do not use operators at all. It means that they like very simple search methods. Students know that the hits need to be evaluated, but many of them still claim they are satisfied with the first ten hits. It shows that our students are not much concerned about the quality of their searches.

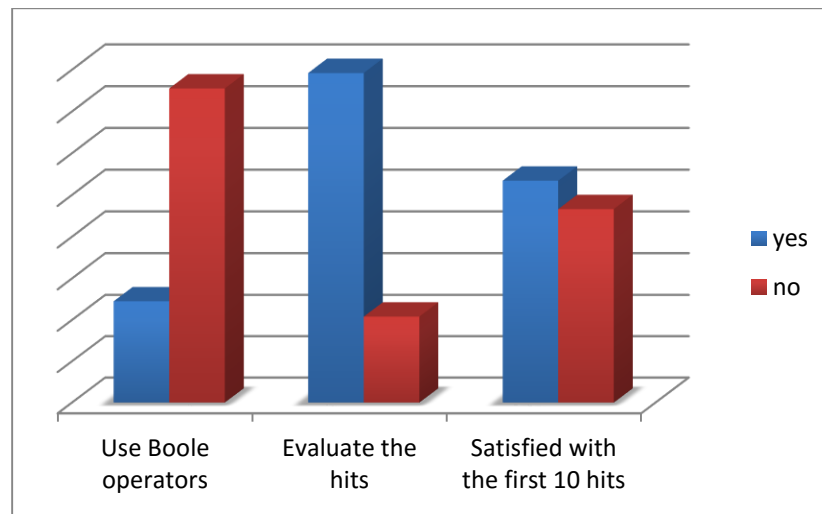


Fig. 6. Search strategies

Students have no bigger difficulties in defining a search question. However, about 20% of the respondents said they have problems with identifying relevant hits. It is difficult for 40% to determine, whether a web site is credible or not. It is also hard for them to convert the collected material into new information. This means that, despite the fact that they have opportunities for carrying out independent research, some very basic competencies that would enable them to accomplish these assignments in an efficient way, are missing.

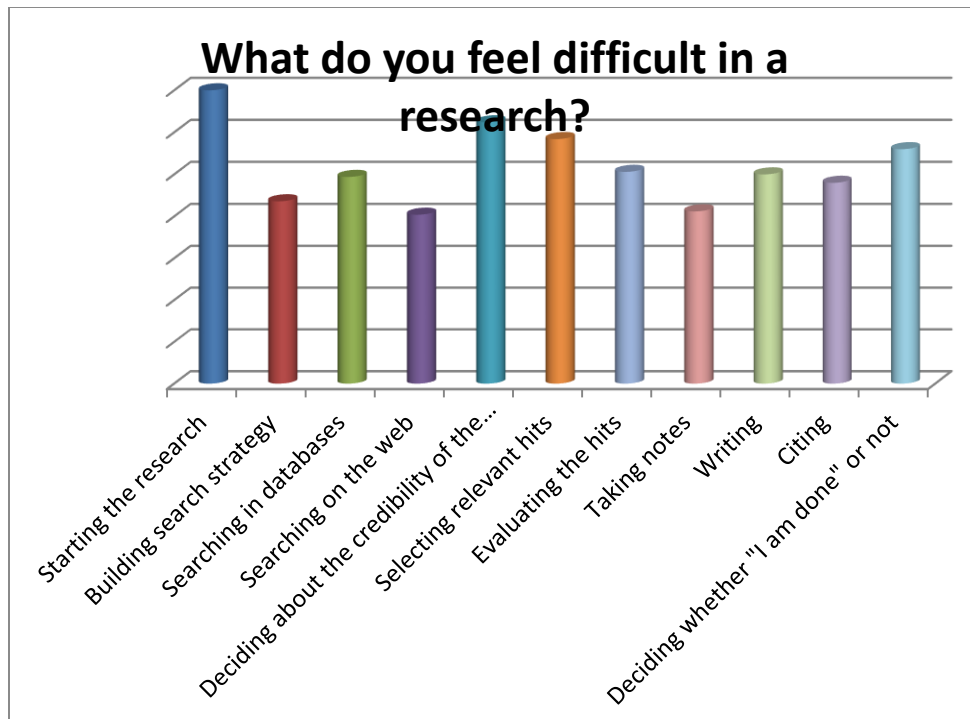


Fig. 7. Difficulties in a research process

For information seeking the majority of the students uses internet search engines, mainly Google. Library catalogues, encyclopaedias and lexicons are less frequently used. At the same time, our students trust traditional information resources much more than the modern, digital resources. Hungarian students rarely consult government sites, and unfortunately, they do not like to use research databases to solve study assignments.

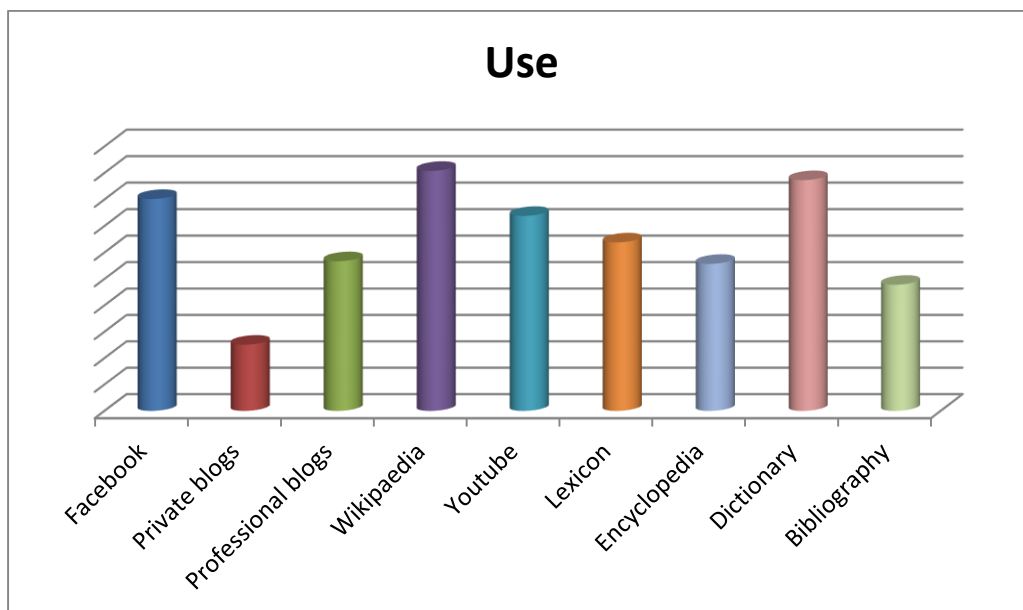


Fig. 8. Used resources

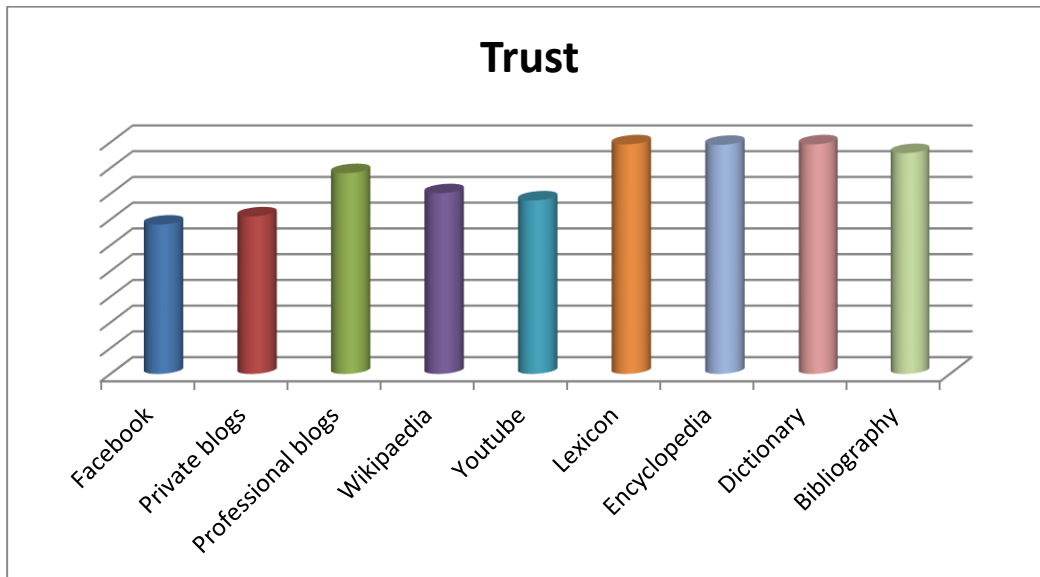


Fig. 9. Trusted resources

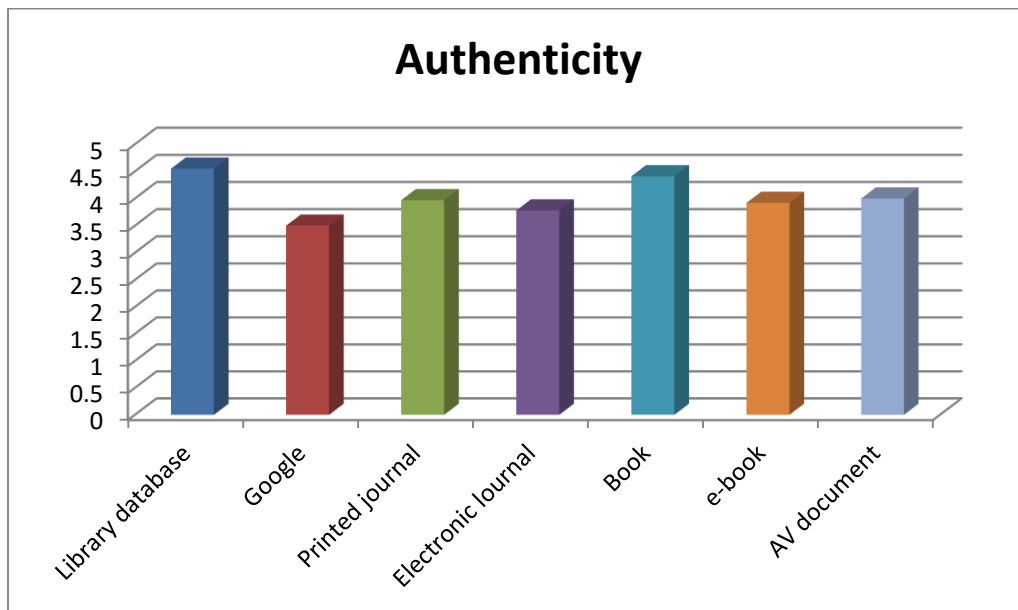


Fig. 10. Authenticity of the resources

When help is needed, students like to turn to their teachers or fellows and friends. Librarians are not so frequently asked as expected.

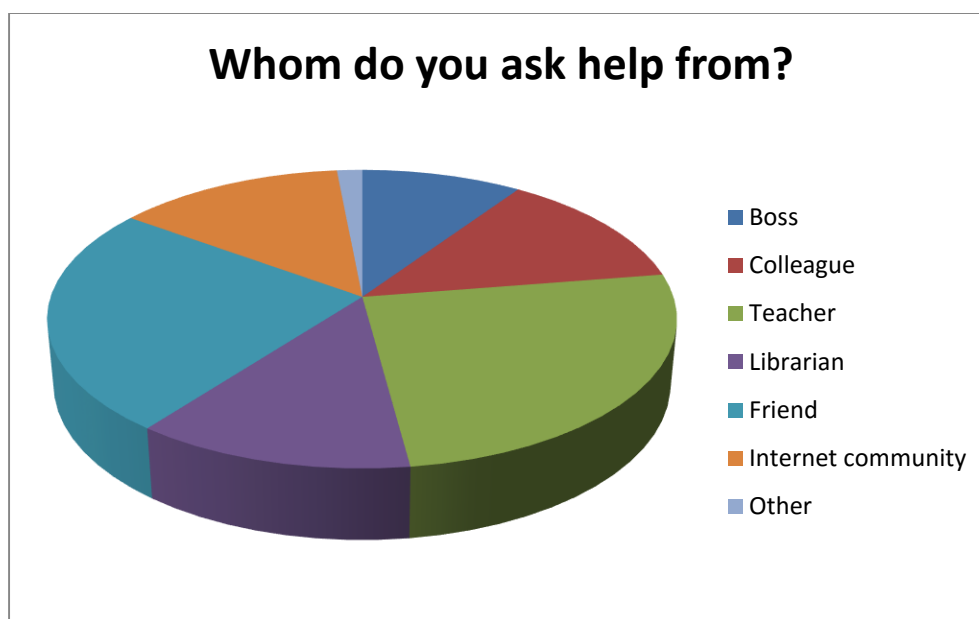


Fig. 10. Help

In the selection process, freshness and reliability are major issues, the publisher or the existence of a bibliography is not important for them. Unfortunately, Hungarian students still have difficulties in using foreign languages, so one of the most important aspects is that the resource should be in Hungarian.

The results of this survey, compared with other surveys about students' information gathering methods (McKiel, 2013, Head, 2013), give some hints about information literacy in Hungary. Students all over the world like to choose the easiest ways to get information. Higher education institutions try to force students towards deep and reliable research methods, so they have to face plenty of information seeking assignments. However, and unfortunately, Hungarian students are not well trained in gathering and selecting relevant information. In other words, their information literacy skills are limited.

The roots of the problems are in public education. Students in primary and secondary schools learn digital literacy and a little library literacy as a part of Informatics (computing) courses, and there is a substantial emphasis on media literacy. Nonetheless, the holistic view of information literacy does not manifest in the curriculum or everyday school practice. One of the reasons is that school teachers' information literacy skills often

are below that of their students'. This fact is one of the reasons why there is a strong and urgent need for reforms in teacher education.

The Hungarian Institute for Educational Research and Development with the help of the European Union is developing a knowledge management system in order to support a better education practice. During the project (TÁMOP 3.1.15-14-2014-0001) we are collecting the best practices of the teachers and the different cultural and educational institutions, and these best practices will be published on a special portal, the National Education Portal. The portal is under development at the moment, from October 2015 it will support a new education attitude, help teachers, parents and pupils.

Hungary is participating in the European Literacy Policy Network (ELINET), which unifies 78 partner organizations from 28 European countries (including 24 EU member states) engaged in literacy policy-making and reading promotion in Europe. The goal is to reduce illiteracy in Europe. Every fifth European youngster of around 15 years and almost 75 million adults lack basic literacy skills, which makes it difficult for them to find a job, and increases the risks of poverty and social exclusion.

The Hungarian Institute for Educational Research and Development actively participates in the tasks of the network. All of the ongoing research in the Institute harmonizes with the goals of ELINET from all aspects. Curriculum development and standardization projects that are currently being undertaken by HIERD could produce useful results for ELINET. Developing literacy skills and digital competence was a highlighted feature of the Educational Knowledge Base project of the National Educational Library and Museum of the HIERD, realized between 2009-2012. Our plan is to bring in the results of this project (such as the Portal of Reading Development) as an input to the international ELINET project.

The Hungarian National Educational Library and Museum are the information center of education science, public education and history of education. Our users are mainly researchers, teachers, and students. During a European Union sponsored project the library developed a special website, called Portal of Reading Development. The main goals of the portal are to help students to attain information competencies and improve intelligible reading. We would like to support the work of school librarians with 30 pilot programs for reading and information literacy development, and a collection of national and

international best practices. The portal has a special site for the children, where smaller and older kids can select relevant readings, and at the same time, they can practice information literacy skills.

Our Mission is to ensure cooperation between Hungarian schools and libraries to develop children's literacy. The Portal for Reading Development collects full-text education materials and tools for teachers and parents to popularize reading and information-seeking competencies. It supports the development of non-formal and informal training programs, adapting Hungarian and international best practices. It uses a search engine that connects to the main databases of the library.

With the help of the library collection teachers, librarians and parents can choose the best way to every child in different ages. The national collection of children's literature includes more than 30.000 titles. This collection contains fiction and nonfiction books for children and young adults, periodicals, picture books, tales, poems, novels, encyclopedias, etc. The search engine offers several ways to find information: by authors, by subject, by illustrators, by biographies, etc.

The Portal for Reading Development also collects new pilot programs, and best practices created by teachers and school librarians. These educational programs can be used in elementary and secondary education to support reading development, digital and information literacy skills in a non-formal and informal way. The educational programs urge the students to use different information sources, library databases, and the Internet.

CONCLUSIONS

There is an immediate need for a system of educational principles for information literacy, for curricula supporting the acquisition of sub-skills, and for these curricula to be integrated into the public education system. We have to provide an opportunity for students to acquire, practice and improve sub-skills of information literacy in a structured system. Additionally, curricula provide special content and tasks relevant to each subject area. The intermediate-level information literacy acquired in public education can then be further developed and made specific within institutions of higher education. That is why close cooperation between educators and librarians is essential, which can only be effective if

educators provide specific tasks and projects for students that require regular use of library resources and services.

Educational institutions, as well as libraries, are lacking in precise definitions of the roles and tasks, which would be essential for the complex development of this competency. What is needed is the availability of and access to the latest technology and the most modern infrastructure, along with a re-evaluated role and precise task definition for institutions of public and higher education and libraries, as these are the places where establishing and developing 21st-century competencies will need to be especially prioritized.

There is a special emphasis to be placed on the role of libraries since they are the institutions that play a major role in the acquisition and development of information literacy. At the same time, this situation poses a serious challenge for libraries that need to prepare for. There are international programs and projects that can help libraries in this endeavour.

All this could serve as a foundation for further research, pedagogical programs, and educational concepts, which in turn could contribute to the institutionalized foundation and development of information literacy. Information literacy as an attitude plays an important role for members of the information society acquiring other 21st century skills and competencies, which in turn result in life-long learning and the mitigation of the secondary digital divide.

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