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DIFFERENT ASPECTS AND THEORETICAL FRAMEWORKS FOR SELF-DIRECTED LEARNING

R. Ćepić1, M. Borščak Dronjić2, D. Lončarić2

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Early childhood teacher and primary teacher profession require continuous professional development, upgrading of knowledge, acquiring new and deepening acquired skills. In order to constantly improve, it is not enough to attend courses, seminars and lectures. In addition to that (or instead of that) it is important to learn independently, whether in the workplace or outside of it. The main goal of this study was to stress the importance of self-directed learning in the context of lifelong learning initiatives. Different conceptions of self-directed learning will be presented, and special attention will be given to the differentiation of linear and interactive models. A distinction of formal, non-formal, informal education is also relevant for the concept of self-directed education and will be presented in the context of continuous professional development and adult education. Special attention will be given to professional development of early childhood teachers and primary teachers with an emphasis on their competencies and beliefs about the applicability of self-directed learning principles in their work. This analysis will provide educators and policymakers with some guidelines for transfer of knowledge and information about self-directed learning/education from adult education to early and primary childhood education, challenging the predominant belief that young children are not ready or able to harness the benefits of the self-directed education environment.

keywords: self-directed learning, self-directed education, lifelong learning, professional development.
DIFFERENT ASPECTS AND THEORETICAL FRAMEWORKS FOR SELF-DIRECTED LEARNING

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Abstract

Early childhood teachers and primary teachers require continuing professional development, upgrading of knowledge, acquiring new and deepening the already acquired skills. In order to continually improve, it is not enough to attend courses, seminars, and lectures. In addition to that (or instead of that) it is crucial to learn independently, whether in the workplace or outside of it. The primary goal of this study was to stress the importance of self-directed learning (SDL) in the context of lifelong learning initiatives. Different conceptions of SDL will be presented, and special attention will be given to the differentiation of linear and interactive models. A distinction of formal, non-formal, informal education is also relevant for the concept of self-directed education and will be presented in the context of continuing professional development and adult education. Special attention will be given to professional development of early childhood teachers and primary teachers with an emphasis on their competencies and beliefs about the applicability of SDL principles in their work. This analysis will provide educators and policymakers with some guidelines for transfer of knowledge and information about SDL/education from adult education to early and primary childhood education, challenging the prevailing belief that young children are not ready or able to harness the benefits of the self-directed education environment.

Keywords: Self-directed learning, Self-directed education, Lifelong learning, Professional development.

1 INTRODUCTION

Concepts of lifelong learning and the knowledge society highlight the crucial time and space shift in the focus that transcends education by emphasizing the need for the development of an autonomous and self-directed student. The development of the concept of lifelong learning and education is considered to be an assumption in achieving a number of objectives in the educational practice as well as one of the key instruments of an appropriate means of facing socio-cultural changes (e.g., [1 - 3], etc.).

In the context of lifelong learning, there are increasingly urgent demands for continuous learning, with increasing attention to SDL. We cannot ignore the fact that SDL is our most natural way of learning and that the complexity and dynamics of contemporary changes affecting all aspects of our lives reinforce our need for such learning. According to Guglielmino [4], the most fundamental reasons for SDL are our nature and the environment. Namely, SDL is our most basic, natural response to newness, problems, or challenges in our environment (p. 2). In his paper, the author discusses the growing need for SDL and attention to its importance in three contexts: in formal learning settings, in the workplace, and in one's personal life – Self-Directed Learning for Personal Effectiveness and Satisfaction.

Education and continuing professional development (CPD) of teachers are thereby one of the central issues, which are essential for the realization, quality, dissemination, and innovation of educational activities. Teachers' attitudes and beliefs about the importance of SDL largely determine their willingness to introduce activities and organization of teaching that would encourage the development of SDL competencies. Unfortunately, unlike the solid research base on the topic of teacher professional development, studies that investigate if (early childhood and elementary school) teachers are self-directed are severely lacking.

Teachers' professional development can be improved through insights into how teachers learn through everyday practice. Also, such insights could advance the workplace as a context for teacher learning. Furthermore, insights into why, how, and when teachers spontaneously engage in learning to improve their practice can help enhance research about social, structural and policy supports. In addition,
understanding the driving force behind the teachers’ desire to pursue new knowledge, what they want to learn, and why as well as where they find what they need, can help teacher educators and policymakers to efficiently support teacher professional growth [5].

This paper aims to provide an analysis of some of the contemporary themes which seem to underpin the rationale for the SDL discourse. Given the fact that teachers’ SDL has been neglected within the broad educational sciences, in this paper, special attention is given to the analysis of the relevant aspects and the theoretical frameworks related to SDL and the professional development of early childhood teachers and elementary school teachers with an emphasis on their competencies and beliefs about the applicability of SDL principles in their work. The discourse on teachers’ SDL is undoubtedly one of the most recent research challenges in education science. In order to improve its effectiveness, it is necessary to research it scientifically and to apply the results of theoretical and empirical research of SDL to the teacher in order to improve his or her practice. It is therefore theoretically interesting and practically useful to consider the importance of SDL in the educational environment and the context of lifelong learning initiatives with the aim of providing some guidelines for obtaining satisfactory learning outcomes and the well-being of those who educate and those being educated.

2 FORMAL, NON-FORMAL AND INFORMAL EDUCATION

The importance of formal, non-formal, and informal learning and education, as well as their interconnectedness, has been the subject of much research over the last few decades. This chapter focuses briefly on the main characteristics of formal, non-formal, and informal education within the framework of the integral concept of lifelong education and learning. The mentioned forms of education are not perceived as being isolated, especially since it is quite difficult to divide them entirely in practice, which the recent literature also highlights.

Since the publication of Coombs’s famous book *The World Educational Crisis: A Systems Analysis* half a century ago, the definition of formal, non-formal, and informal education/learning has been abbreviated or slightly adjusted as it has been done in the following determinations. Formal education refers to a highly institutionalized, chronologically graded, and hierarchically structured “education system,” ranging from the elementary school to the university. In other words, it is carried out in institutional and publicly verified forms of education with the aim of acquiring professional knowledge, skills, and abilities and results in a public document (with a certificate or diploma) proving the completion of studies and type of education. Non-formal education refers to an organized and systematic educational activity carried out outside the framework of the formal system to provide selected types of learning to particular subgroups in the population of any age. It indicates an organized learning process aimed at training individuals for work, for different social activities, and personal development. It can, but does not have to, result in a formal confirmation of a successfully mastered form of education, but such a certificate does not have the status of a public document. Informal learning could be defined as a lifelong process by which a person acquires and accumulates knowledge, skills, attitudes, and insights from everyday experiences. It is, however, unorganized and often unsystematic, but it nevertheless represents a significant part of any person’s total learning throughout his or her life. SDL is often associated with informal learning, and it includes activities through which individuals independently establish control of the learning process as well as responsibility for the learning outcomes.

Alan Rogers’s published study *Non-formal Education – Flexible Schooling or Participatory Education* [6] can be considered the first comprehensive (systematic) study of non-formal education on the international scientific scene following the influential work by Cooms and Ahmed in the 1970s. In his book, Rogers [6, p. 69] points out the four main components in the development of the concept of non-formal education: a) understanding NFE as all education outside the formal system (extra-formal); b) understanding NFE as inherently opposed to formal education (anti-formal); c) considering NFE in the field and claiming it is much like formal education (para-formal); and d) finding the possibility of non-formal elements within a formal educational situation (intra-formal). For these four major components or phases in the development of the idea of non-formal education, Rogers uses words which refers to people advocating the attitudes typical of those principal components. So, he speaks of advocates, ideologues, empiricists, and pragmatists.

Informal learning deserves more attention from researchers because it is more than just a peripheral aspect of lifelong learning and education. It is usually determined as a true life-long process in which all individuals acquire and accumulate knowledge, skills, attitudes, and values from everyday
experience, educational influences, and resources in their environment. Various definitions, concepts, and uses of the term informal learning, which have been caused by its distinct diffusivity, are circulating in the literature. Thus, in professional literature, informal learning is often associated (and identified) with experiential learning, location learning, SDL, action learning as a variant of experiential learning, and reflection in action, latent (silent, invisible, implicit) dimensions of learning, critical reflection and transformation learning, improvement of informal and incidental or unintentional learning, and other concepts. The range of the abovementioned meanings and perspectives that are far from being complete draws attention to different discourses in understanding informal learning. In the prevailing definitions of informal learning, it is defined as learning that can be achieved by unintentional (so-called spontaneous, natural learning) as well as intentional or planned and SDL.

It is not easy to understand the complex and dynamic processes of cognitive practices in which people in an informal way learn how to solve problems which they individually or collectively face in everyday life and in the workplace. Informal learning is an ambiguous phenomenon in the sense that no one definition can include the totality of its meaning. By accepting one, exclusive access, it makes it susceptible to criticism of other approaches, which is symptomatic for a general crisis of knowledge associated with the "postmodern condition" [7, p. X].

Papers which deal with the teachers' informal learning [e.g. 8-10, etc.] discuss various aspects of informal teacher learning. Among the few existing studies, informal learning is "more self-directed where the participants plan and execute the learning activity. New knowledge is constructed through exploration, observation, collaboration, daily practice, and reflection. Informal learning allows teachers to own the content and the delivery methods of their learning while formal professional development enables teachers to acquire foundational teaching skills and gain in-service credit for licensing renewal" [11, p. 59]. McCarthy and James [11] are indeed worth mentioning among the few studies that focus on informal professional learning practices (teacher collaboration, mentoring, coaching, informal communication, and individual learning activities). The findings from this study emphasize the importance of strengthening support for more SDL in teacher development programs (p. 58)

Today, we certainly know that formal, non-formal, and informal learning and education are intertwined but also complement each other. Recent research suggests that personalization, collaboration, and informal ways of learning are at the core of creative learning practices [12, 13]. As a concluding remark about the considerations of formal, non-formal, and informal learning and education it should be noted that informal education/learning and SDL are considered the most vital education in the overall continuous education, although it is much more difficult to monitor it concerning formal and non-formal education. Therefore, the educational community should be more inventive in supporting the various possibilities of professional development of teachers, especially their SDL.

3 SELF-DIRECTED LEARNING

Lifelong learning emphasizes the importance of motivation for learning and focuses its attention on SDL whereby a learner makes decisions about the choice of content and forms of learning. In the scientific and professional literature, there are terminological and conceptual differences in studying the phenomena of SDL. In considering the concept of SDL, we primarily focused on the relevant andragogy sources. As Knowles, Holton & Swanson, [14, p.185] point out, "perhaps no aspect of andragogy has received so much attention and debate as the premise that adults are self-directed learners."

In the adult education literature concerning autonomous learning, there are numerous terms such as autonomous learning, independent learning, self-directed learning, self-managed learning, self-organized learning, self-regulated learning, self-planned learning, self-initiated learning, self-learning, self-education, self-instruction, self-teaching, autodidaxy, and others. All of these terms are used to designate the learning process that roles the students themselves into a lifelong perspective. As Cosnereoff and Carré [15] point out in their work Self-regulated and self-directed learning: Why don't some neighbors communicate?, despite institutional differences, epistemological barriers, and scientific power issues among them in the existing literature, "self-regulated SRL and self-directed learning SDL are close, specific, and complementary concepts situated within a rich network of common theoretical issues and practical challenges" (p.10). The authors also address these issues in their work from the field of adult education and educational psychology, but not as being two different worlds but rather as "neighbors." Let us mention Saks and Leijen [16], who also explore the similarities and differences between the two mentioned terms and their usage; however, in this paper, it is not the subject of our analysis.
SDL theory emerged from Tough's work [17] and definition of SDL as learning projects which are characterized by self-planned learning with a highly deliberate effort to learn from the things that take place around the learner. Knowles [18] expanded this definition of the SDL process. He describes SDL as a process "in which individuals take the initiative with or without the help of others in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18). The responsibility and control of learning are the foundation of SDL, while the measure in which a learner decides on the key elements of the learning process is the measure of self-reliance. Brookfield [19] asserted that adults are inherently self-directed and that edification best occurs when individuals are empowered to direct the design, execution, and evaluation of their learning. The impetus behind SDL is often a result of critical reflection.

The SDL learning theory has replaced the linear models focusing on the process of organizing instruction and goals with the interactive and instructional models that comprise the learner, educator or facilitator, and other factors. The earlier models of Knowles [18] and Tough [17] were linear and provided step-by-step processes for learners to become more self-directed in their learning. They assumed that as learners mature, they would become more self-directed. Thus, for example, Knowles's Model reduced his points to only six: (1) setting climate, (2) diagnosing needs, (3) setting goals, (4) identifying resources, (5) choosing and implementing, strategies, and (6) evaluating outcomes.

Nonlinear, interactive models [20 - 24] incorporated various factors into SDL, including opportunities; prior, current, and future experiences; individual personality characteristics; context; cognition; and motivation. In Spear's Model [20], based on opportunities, prior and new knowledge and chance occurrences, each self-directed learning episode is made up of "clusters" of information, which are stored and from which the learner constructs a unified "whole." Learners tend to use trial-and-error methods and are guided by their successes and failures. According to Cavalliere's Model [21], the presence of specific opportunities and resources is essential to successful SDL. It comprises five stages: (1) inquiring, (2) modeling, (3) experimenting & practicing, (4) theorizing and perfecting, and (5) receiving recognition.

Within each stage, four cognitive processes repeat themselves – goal setting, focusing, persevering, and reformulation. Brockett and Hiemsta's Model [22] model, The Personal Responsibility Orientation (PRO), combines SDL and the learner's personality characteristics (learner self-direction). Based on the concepts of humanism and human potential, learners are responsible for their learning experiences, although the educator/resource may additionally facilitate the process. The context and situational factors are thereby of vital importance. Danis's Framework [23] is a synthesis of research data and is intended as a "map of the territory" that researchers could use to study the interaction of the components of SDL. Danis's components include (1) strategies, (2) phases, (3) learning content, (4) the learner, and (5) context. Garrison's Model [24], as a "collaborative constructivist" approach includes three components: (1) Self-management (control) – learners collaborate and shape contextual environment to reach their goals; (2) Motivation (entering and task) – learners' choices of learning activities and factors influencing continued participation; and (3) Self-monitoring (responsibility) – learners use many learning strategies and think about their thinking. According to Garrison, adult education has traditionally focused on the first component, the control of learning, but has paid less attention to the learning processes. He suggests that equal attention should be given to motivation issues, including the motivation to engage in SDL and to complete self-directed learning tasks [14, p.187-188].

In addition to the abovementioned interactive, SDL models, it is worth mentioning the instructional models, which emphasize the following: a) Integrate self-directed methods into their classroom and activities, and b) Allow for more learner control and independence. We should mention here Grow's [25] Staged Self-Directed Learning (SSDL), which proposes that learners advance through stages of increasing self-direction and that teachers can help or hinder that development. The teacher's purpose is to match the learner's stage of self-direction and prepare the learner to advance to higher stages. Good teachers individualize according to the students' stage. Four stages of the SSDL model are: Stage 1: learners of low self-direction need authority figure (student – dependent; teacher – authority, coach), Stage 2: learners of moderate self-direction, feel motivated and confident but ignorant of the subject matter (student – interested; teacher – motivator, guide), Stage 3: learners of intermediate self-direction, both skill, and basic knowledge, can proceed with good guide (student – involved; teacher – facilitator), and Stage 4: learners for high self-direction, plan, execute, and evaluate their learning (student – self-directed; teacher – consultant, delegator).
Many researchers consider that the three major instruments that assess learner readiness for SDL include the Self-Directed Learning Readiness Scale (SDLRS), the Oddi Continuing Learning Inventory (OCLI), and the SDL Perception Scale. In 1977, Guglielmino developed SDLRS, also known as the Learning Preference Assessment (LPA), with the aim of measuring the complex of attitudes, abilities, and characteristics that comprise readiness to engage in SDL, which has become the most widely used assessment in the field of SDL [26]. Eight factors identified by Guglielmino [27], and supported by many later studies, include: 1) love of learning, 2) self-concept as an effective, independent learner, 3) tolerance of risk, ambiguity, and complexity in learning, 4) creativity, 5) view of learning as a lifelong, beneficial process, 6) initiative in learning, 7) self-understanding and 8) acceptance of responsibility for one's learning. OCLI is a 24-item Likert scale that measures personality traits related to an individual's ability to be self-directed [28]. The SDL Perception Scale developed in 1997 by Pilling-Cormick [45] examines environmental factors that help or hinder a learner's ability to be self-directed as opposed to looking at individual personality characteristics, attitudes, or skills. The most frequent criticisms of the author within the SDL theory relate precisely to the appropriateness of the SDL concept, the concept of autonomy in learning, and the inconsistencies in considering both students and learning environments [29-32 and others].

4 TEACHERS' CONTINUING PROFESSIONAL DEVELOPMENT

Raising the quality and efficiency of education depends on the professional development of teachers – initial education and continuing vocational training – and requires the development of key transversal competencies for lifelong learning based on creativity, innovation, critical thinking, or entrepreneurship [33]. Teachers are becoming part of a new educational reality, and the overall changes raise a number of questions that are important for understanding the educational pathways that will lead us into the future [34].

As McCarthy and James point out [11, p. 62], "effective teacher's professional development can take place in both highly structured and self-directed settings." Whether the learning is formally or non-formally organized or whether it is conducted individually or in groups, research shows that quality professional development can be achieved if several key components are included in the learning experience.

Above all, in the planning and implementation of the program, educators of adult learners should know the underlying motivational and emotional aspects of the functioning of adult learners in order to create an educational environment and access to instruction that will encourage their inclusion in the learning process. The elements to be considered, having in mind the differences between young and mature students, are as follows [35, 36]: 1. The learner's need to know – it is important for adults to understand what kind of benefit can be from learning, that is why they have to learn something before deciding whether to invest in learning. 2. Self-concept of the learner – for adults it is important for them to recognize other people in the educational environment to be able to assume responsibility and self-directing in learning. 3. Early experience of the learner – adults included in a learning process with a large amount of knowledge and skills, specific life experiences and built mental circuits. 4. Readiness to learn – adults are most prepared for new learning when life or work circumstances change significantly. 5. Orientation to learning – Adults learn more successfully in problem situations and situational examples and when they can compare their experience with the experience of other adult learners. 6. Motivation to learn – though adults are involved in the educational process, expecting to have practical benefits (advancement, higher wages, etc.), their performance in learning is highly linked to the motivation for personal development and improvement.

Educational institutions should take the initiative to spread good practices in the promotion and development of autonomous, independent, and focused learning of students. A prerequisite for such an initiative is the establishment of organizational culture and climate/atmosphere based on trust, respect, critical reflection, collaboration, communication, and distribution of responsibilities as an integral part of informal teacher learning [37].

The teacher is a crucial component of SRL just as a designer of the environment and conditions suited for SRL. His role in teaching SRL through interpersonal topics such as "learning to learn" is even more important. The teacher is also crucial for developing the competence of SRL as a fundamental precondition for lifelong learning. Unfortunately, research shows that teachers inadequately stimulate SRL. Part of the reason may be found in the excessively prescriptive and regulating nature of the basic program documents, while the other part lies in the insecurity of the teacher for the application of such a method, which he considers to be excessively radical and uncertain with respect to learning.
outcomes [38, 39]. Due to the disadvantages of initial education, teachers are not sure to what extent they have to guide their students and to what extent they must be able to manage them through the learning process themselves [40]. It is important that teachers and educators have a clear understanding of the notion and nature of SDL skills, which is essential for their further development [41]. For example, Wagner [42] points out that "SDL can be engaging and powerful professional development in comparison to prescribed or mandated professional development. Therefore, in research, it is necessary to focus on the professional development of early childhood teachers and elementary school teachers with an emphasis on the importance of developing their competences of SDL and positive beliefs that young children are ready or able to harness the benefits of the self-directed education environment.

In order for teachers to acquire the competencies needed for these new roles, it is necessary to ensure quality initial education as well as coherent processes of CPD. Professional development does not take place in a vacuum and it is vital that it incorporates other elements in the broader context (such as professional identity, environmental features, social circumstances of development, and motivation for participation in professional development), which may also influence institutional practice of professional development [43, 33]. The fact is that new dimensions in the dynamics of learning and acquiring knowledge of teaching and learning, cognitive science, advances in neuroscience, and other modern developments require partnership, cooperation, and collaboration in solving educational problems, experimentation, and research.

5 CONCLUSIONS

In the last decades, we have noticed developments that are beginning to change the traditional education practice in different directions. We are witnessing a real revolution of many changes that affect the entire area of education, and it is evident that the contemporary educational practice is becoming more complex and simple forms are no longer appropriate for it.

Teachers encounter a variety of challenges related to teaching and its effectiveness, as well as the increasing social need for educational effectiveness. However, in the context of lifelong learning and teacher professional development, the study of their competencies, attitudes, and beliefs about the applicability of the principles of SDL in their work with children has been unjustifiably neglected. Namely, there is no systematic research on the teachers' readiness for SDL as well as the context and frequency by which this learning occurs. Unlike a solid base of research on the topic of teacher professional development, there are insufficient studies which investigate whether (especially, early childhood and elementary school) teachers are self-directed. How do teachers evaluate their willingness to self-study? What kind of learning activities do the teachers take in inside and outside the (pre)school environment? Do these learning activities translate into the educational process? Only few of the open questions have been addressed. More studies need to be conducted in order to understand teachers' SDL efforts better.

Studies show that there is generally no incentive for a teacher to engage in CPD (concerning career advancement) as well as the teacher's unwillingness to engage in it. Providing support for teacher learning, and above all the development of positive beliefs, attitudes, and skills that support SDL and encouraging their continuous, SDL, should be the central goal of formal and non-formal programs of CPD of teachers. Our time requires continuous lifelong learning and above all SDL to deal more effectively with current and future challenges and changes which we cannot foresee.

Some teachers will surely overcome most of the obstacles they face in the process of SDL, but others will need help in accepting responsibility and developing skills and attitudes for SDL. Our responsibility as educators and researchers is to know everything we can about SDL and the best ways to help develop their skills and positive attitudes about SDL. There are many open issues to be explored.

Teachers' attitudes and beliefs about the importance of SRL largely determine their readiness to introduce activities and organization of teaching incentives to develop SRL competencies. Such attitudes and beliefs are formed during the initial and continuous teacher education, so the question imposes itself to which extent is their self-assessment of the degree of professional competence associated with positive beliefs about the importance of encouraging SRL in students [38].

There is a need for a more explicit consideration of the SDL practice in designing and developing appropriate programs for the professional development of teachers. Empirical research of SDL should focus on activities that teachers themselves identify as real learning projects or initiated SDL activities. Based on the data obtained, it would be possible to know more effectively the problems and to
develop further educational opportunities. It is clear that SDL cannot be ignored and left out of social and scientific priorities.

Since this type of learning is most common in adults, and perhaps most important, it is necessary to improve the conditions and create opportunities for SDL in all its modalities. We can agree with the finding by Mushayikwa and Lubben [44] that self-directed professional learning is a critical determining factor in the overall effectiveness of the teacher's professional development as teachers are continuously engaged in SDL regardless of whether their efforts are supported at higher administrative levels.

As emphasized in the paper, in order to improve the effectiveness of self-directed teacher learning, it is necessary to research it scientifically and to apply theoretical and empirical research results in order to improve the programs of their CPD and practice. The needs and possibilities of interdisciplinary research of adult education in the context of lifelong learning are nowadays being intensively elaborated on in international literature. Orientation towards the interdisciplinary approach to lifelong learning, which means self-directed adult learning, certainly belongs to the future that has already begun.

In a whole spectrum of ways of achieving lifelong learning, SDL seems to be the most natural way. SDL cannot be seen as a secondary educational activity. The context of modern living necessarily moves SDL to the very center of educational activities. Therefore, it is necessary to improve the conditions and create opportunities for SDL in all its modalities.

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