Improving education with self-directed learning

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Abstract: *The aim of this article is to understand the concept of self-directed learning and to explore how to use self-directed learning in an educational environment, in order to find the appropriate qualitative and/or quantitative methodology to study the self-directed learning concept. In the specialized literature the concept of self-directed learning is linked with personality traits, learning environment or learning process. In the literature we find that there is a correlation between self-directed learning and some personal traits from the "Big Five" model of personality, including extraversion, agreeableness, openness and conscientiousness. Self-directed learning is also influenced by the learning environment, which consists of teaching environment, learning environment, technology and administrative support. In a "traditional" learning environment, the teacher defines the learning goals, delivers the knowledge and evaluates the student's ability to memorize the specific delivered knowledge. The student's learning needs are rather seen homogeneous than heterogeneous. In a self-directed learning environment, the student takes the initiative, defines his own strategies of learning specific goals and evaluates his evolution in pursuing a certain learn-*

ing goal. Seen as a process, the self-directed learning can be structured in certain steps like: defining the steps of learning from easy to difficult; establishing an own calendar of learning; evaluating his own learning progress etc.

Keywords: self-directed learning, personality traits, communication skills, economic education, motivation.

JEL Classification: D83, I21, P36

1. Introduction

Learning is a process where a student gains competencies in a certain field. He needs to remember a certain stock of knowledge, to develop particular skills and to change some attitudes in order to succeed in a profession. The market is becoming more competitive, and some jobs are changing with respect to technical progress and social dynamics. To become a highly trained professional and a valuable employee or manager, the individual needs to invest in his own competencies. The school or university can provide a fixed or more flexible curricula, but certain activities require some more specialized competencies which can be better acquired by self-directed learning. In the self-directed learning framework, the student should understand his own needs, where he lacks some competencies and where he needs improvement. However, he will face some new obstacles related to taking his own responsibility in learning, self-motivating, choosing between easier or harder learning materials, constantly evaluating his progress, defining his own learning strategies and a particular calendar of learning.

If the learner meets certain personality traits, is able to learn individually and assess himself the proper feedback, then he will have better chances in becoming a proficient learner. However, he will need to choose from available learning materials and from available learning environments. Teachers provide adapted learning material for self-directed learning, advising and mentoring within the process.

2. Literature review

Academic performance is influenced by the self-directed learning and self-directed learning is correlated with the personality traits. (Cazan Ana-Maria, Schiopca Bianca-Andreea, 2014). Noorriati Din, Shireen Haron, Rahmah Mohd Rashid (2016) studied the self-directed environment as a way to enhance and inhibit the ability to learn with minimal supervision that improve individual and group responsibilities among teachers and learners.

3.Why self-directed learning?

In a "traditional" learning environment, experts define the curricula, which represent certain standards and choose which materials are "appropriate" for learning. To acquire certain competencies in a profession, specific knowledge is defined as critical and teachers are structuring that knowledge in order to differentiate who can learn that specific knowledge. In this framework, the learner "receives" that knowledge and he reacts to that knowledge. There is a constant validation from the teacher, usually by a final exam in which the ability of the student to memorize that specific knowledge is being evaluated. This consists of an external validation from a teacher, which is measured by a grade.

Usually, the learner doesn't feel free to direct himself due to his responsibility to learn a specific material. The students lack sometimes the experience or skills to appropriately adapt different concepts to their needs. For example, they do not find sometimes the internal resort to learn the specific knowledge because they can't find at that certain moment a good practical reason to learn that specific knowledge. Sometimes the learning material is very abstract and is not problem-centered which raises more difficulties to learn a standardized material.

However, the students developed certain skills or abilities which are heterogeneous. Due to heterogeneous needs, the limitation in "traditional" learning is that the teacher imposes the educational material, he sets goals and evaluates the learning progress of a student through some homogeneous standards.

4. Self-directed learning and personality traits

Cazan Ana-Maria, Schiopca Bianca-Andreea (2014) made an analysis starting from the "Big Five" model of personality.

The Big Five personality traits include: (Hairunnisa Ma'amor et al., 2016):

- Extraversion, described by sociability, talkativeness, assertiveness, energetic and optimistic;
- Agreeableness, which refers to people who are "good-natured", caring and emphatic, which is related to "friendly compliance";
- Neuroticism, described as emotionality related to being anxious, angry, depressed, embarrassed, worried and insecure;
- Openness, related to creativity, curiosity, visionary and aesthetic sensitivity;
- Conscientiousness, described as organized, detail-oriented, planned and

task-oriented which are usually dependable, careful and self-disciplined.

The main hypothesis in their study was that self-directed learners will have a higher level of academic achievement, but also that some personality elements will give a higher expectancy of academic performance (Cazan Ana-Maria, Schiopca Bianca-Andreea, 2014). The authors used a sample of 121 first year students (60 students) and third year students (61 students) from a university from Romania. The results show a correlation between personality traits and self-directed learning. More specific, the results show that openness to experience correlates strong with self-directed learning and the only personality trait which does not correlate with self-directed learning is neuroticism.

Personality trait	Positive correlated with self-directed learning
Extraversion	Yes
Agreeableness	Yes
Neuroticism	No
Openness	Yes
Conscientiousness	Yes

Source: Cazan Ana-Maria, Schiopca Bianca-Andreea (2014)

5. Self-directed learning and the learning environment

The Self-directed Learning Index (Noorriati Din, Shireen Haron, Rahmah Mohd Rashid, 2015) is consistent with measuring the ability and strength to study the self-directed learning environment:
   a. Teaching environment;
   b. Learning environment;
   c. Technology;
   d. Administrative support.

a. The teaching environment is represented by a relevant instructional process, by the appropriate competences of the teacher and relevant teaching materials (Noorriati Din, Shireen Haron, Rahmah Mohd Rashid, 2015). To foster the self-directed learning within the learning environment, the teacher should develop certain competencies. Students lack certain abilities, skills or knowledge and they pursue different goals in learning. In other words, the learning needs are not homogeneous but are heterogeneous with respect to individual competencies.

For example, Knowles, M.S. (1980) identifies several particularities of adult learners:

- Adults need to be autonomous and to feel free to self-direct their learning;

- Adults have accumulated specific knowledge and experience and they have their own reasons in learning something new;

- Adults are more problem-oriented and less subject-oriented.

Relevant teaching materials are relevant for self-directed learning when they are permanently available, easy to access online and designed in ways that a student can self-learn, choose specific goals, choose their own paths of learning, permanently raising their own questions about learning subjects and easy to evaluate their own progress.

b. The learning environment

The Learning Environment includes interaction, flexible learning, communication and collaborative learning (Noorriati Din, Shireen Haron, Rahmah Mohd Rashid, 2015). Constant interaction and communication is needed in a learning environment in order to reinforce permanent questioning and feedback from the teacher and other students. Flexible learning is related to the schedule and a fixed learning environment,

like a classroom. To this respect, flexible learning means that a student can set his own rhythm of learning, independent of a fixed calendar and he has the possibility to access online learning materials whenever he wants. Collaborative learning means that both teachers and students are active participants in learning and an active dialog between them will give a better understanding of the concepts, ideas, methodologies or tasks.

c. Technology

The technology used in a learning environment is related to the use of technology as an instrument to foster learning. This includes all the technology which is available, like blogs, Facebook, online libraries etc. For example, within several European Union funded projects are developed personalized learning tools by which the students and teachers learn online, take online exams and develop online competencies. For example, in the project "Formarea personalului universitar şi a studenţilor în utilizarea instrumentelor informatice moderne în domeniul managementului universitar", students developed competencies in using IT software in ERP (Enterprise Resource Planning).

d. Administrative support

Efficient administrative support for self-directed learning is related to the development and administration of the online resources. An online platform which is easy to access, to download learning materials and to actively communicate with teachers and other members of the community needs maintenance from the technical support. An efficient administrative support is where a database is easy to access. When students face technological obstacles, they will ask for help to overcome different details which are related to the digital platform.

6.Self-directed learning as a process

Taking own responsability for learning needs a certain framework of action, a certain "pathway" to structure the knowledge. The educational process should not be chaotic, but it should be done in a manner to make the learning as easy as possible. Self-knowledge of the individual, knowing his own perceptions and needs is a good starting point, but learning through a process should be a better way in evaluating someone's learning progress. An approach for self-directed learning as a process was systemized by Siminică Marian, Traistaru Aurelia (2013):

- Setting goals, related to a priority selection depending on the individual needs;
- Finding the internal proper resorts, based on self-anticipated results of learning, triggered by certain personality traits;
- A structured learning environment, related to appropriate physical conditions, like climate, lightning etc.;
- Defining the steps of the learning activity like a process, from easy to difficult;
- Defining concepts, method, techniques and heterogeneous strategies of learning to achieving own goals;
- Establishing an own calendar of learning which emphasizes a particular learning calendar;
- Defining own standards for realizing the tasks;
- Evaluating his own learning progress, by comparing the objectives of learning with the work which was done;
- Comparing the acquired knowledge with real-data applications;
- Changing the pursued goals of learning, as an adaptation to specific domains of studying.

Self-directed learning is not limited to the components of the process described above, but it needs a constant change in actions in order to adapt to the specific goal of learning. Some problems are complex and the steps can be adapted to particular requirements.

In "Promoting Self Directed Learning Skills in First Year Students" qualitative research has been conducted on for online learning logs written by 113 students from first and second year about a creative project and in the paper are described the self-directed learning strategies for defining, planning a project, selecting creative ideas, monitoring and evaluating their evolution. We find suggestions for structuring a learning environment to enhance self-directed competencies for a student:

- He estimates the difficulty of a learning task;
- Reevaluates the difficulty of a task;
- Decides on a new learning strategy;
- Decides to improve himself, related to his own abilities;
- Defines a goal for what to improve;
- Choses what to learn on to a next event;
- Evaluates his own work on the last semester;
- Choses where to get help to improve his learning skills;
- Choses another method to improve the results;
- Evaluates the time constraints;
- Decides he should choose other modules or learning activities;
- Choses which skill he should improve;

• Decides how to improve his own learning;

• Evaluates the limits of a chosen software for learning;

• Finds out which are the limits of a chosen method which could cause him problems later;

• Evaluates his peer's suggestions and how to give them a feedback;

• Understands why a task is difficult to pursue;

• Choses between creative ideas.

7. Conclusions

Self-directed learning is a process in which the student takes an initiative and directs his own learning. He is responsible for his teaching goals, he chooses his own learning strategies, the methods and instruments to pursue certain topics. He learns independently from a formal "traditional" classroom framework and he evaluates his own progress. However, the teachers still provide appropriate teaching material, but which is adapted to the self-directed learning framework. An appropriate learning environment is needed for a sustainable learning progress, which is related to a constant communication, feedback and discussions on a topic.

A process is better understood when it's measurable and the research was done to find the appropriate qualitative and/or quantitative methodology to study the self-directed learning. Using the appropriate methodology and appropriate indicators to study self-directed learning, future research will be done within different learning environments, like formal or informal educational environments and companies.

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