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EXTENDED SUMMARY OF THE PHD THESIS

The Role of Service-Learning in Optimizing the Pedagogical Training and Civic Responsibility of the Digital-Native Students

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Chapter I. THEORETICAL FRAMEWORK – Theoretical and empirical foundations

1.1. Introduction and general considerations on research topics

In the digital-native era, we consider a parallel path of continuous self-education to be necessary and appropriate, alongside formal education, in order to meet the changing expectations of new students and to shape and optimize our own didactic and self-knowledge competences. Thus, one can assume that, in order to become a role model, the teacher should benefit from different opportunities such as training, tutoring, community-involvement and activities that foster the development of civic attitudes.

The main educational issues that guide this PhD research are the alternative ways to make students' pedagogical training more effective through community-based learning, together with emphasizing the potential of web 2.0 resources in self-education and facilitating access to ongoing training programs in order to increase the teachers' satisfaction and work performance, as well as facilitate the insertion of pre-service teachers into the labour market as expert teachers.

The objectives of this PhD thesis are to investigate the current situation of the implementation of Service-Learning (S-L) methods in a higher education institution (Babeş-Bolyai University, Cluj-Napoca, Romania) by offering alternative ways to improve the pedagogical training of the digital native students, together with the exploration of the web 2.0 potential in self-education. Moreover, this paper is aiming to facilitate the access to training programs regarding the understanding and implementation of the S-L pedagogy for teachers, in order to increase the work satisfaction and performance.

Following six distinct stages, which are based on six semi-independent methodological and co-dependent studies regarding the achievement of the general objectives of the thesis, this PhD thesis onsets with a systematic analysis of the literature for shaping a profile of the e-tutoring programs for digital-native students (study 1) and continues to test the effectiveness of a S-L e-tutoring program for pre-service teachers focusing on streamlining their pedagogical training, then with a systematic review of the recent literature concerning current trends in S-L programs for future teachers (studies 2 and 3). The latter steps aimed to adapt for Romanian use and to linguistically validate a S-L assessment tool in order to standardize the evaluation of the effects of these programs among participants (study 4) alongside with the reorganisation and extension of the previously used S-L program that follows a validated scientific model for inserting S-L in higher education institutions. The PhD research culminates with the exploratory investigation of the S-L prerequisites for implementation in universities by developing an assessment tool and evaluating the current state of the prerequisites at Babeş-Bolyai University (study 6) with the purpose to frame this issue and support all future attempts of S-L institutionalization in the Romanian higher education institutions.

1.2. Service-Learning

Community-Based Learning or Service-Learning (S-L) is an educational philosophy that gains popularity in contemporary Romanian education as well. S-L is considered a pedagogy of reflection, relational, which combines the public service offered to the community along with well-structured learning opportunities (Heffernan, 2001). Inspired by the progressive educational movement led by philosopher John Dewey (1910), education in the S-L context is seen as aiming to develop students' potential for the greater good of the society.

Regarding the intensity of the S-L concept, a number of definitions are reticulated in literature, assuming various points of view. S-L is considered an educational tool that "... wants to involve individuals in activities that combine both community service and academic learning" (Rusu et al., 2014 apud Furco, 2002). According to the US National Expert Education Society, S-L refers to "*any closely monitored service experience where the student assumes intentional learning goals and actively reflects on what he learns from experience*" (Billing, 2000). Following the same direction, the National Service Corporation (US) argues that S-L is a method by which students learn and develop through active participation in community-oriented experiences that meet their needs, is integrated into the academic curriculum and provides them with reflective opportunities that extend learning beyond the classroom into the community (Furco, 2011).

The S-L characteristics are (Billing, 2000):
- It is designed to meet the needs of the community of students;
- It is coordinated with a primary school, other academic institutions or community service programs;
- It is meant to develop civic responsibility;
- It is integrated into the core curriculum of the participants - the activities are designed so that they are an extension of the compulsory subjects covered by all the participants, to the same extent;
- Provides a final temporal sequence that allows participants to reflect on the S-L experience.

Considering that S-L's definition directions are multiple in literature, we consider that it is important to differentiate the S-L concept from other similar concepts that include community-involvement, such as volunteering, community service, internships, or other service education programs. Furco (2011) and Sigmon (1994) provide a conceptual framework that clarifies the S-L concept in relation to other community-oriented activities, where an S-L program requires equal share of learning goals with the service offered, which is what distinguishes S-L from other similar programs.

1.3. The distinction between Service-Learning and other similar programs

There literature mentions a number of community-oriented programs and actions that differentiate from one another by emphasizing different areas as follows (Furco, 2011):

Volunteering refers to involving students in activities where the emphasis falls on beneficiaries; unlike S-L, the benefits of such programs are unintentional and do not include explicit educational objectives. A notable example of volunteer activity would be the ShoeBox Romania program that collects gifts for children with low socio-economic status and volunteers from various centers located in major cities of the country distribute gifts to hard-to-reach communities (http://www.shoebox.ro/).

Community service involves students in activities that focus on service offered to the community as well as program beneficiaries. The S-L differentiation from this program consists of clearly defined operational objectives and the correlation of activities with pupils' core curriculum.

Internships are programs that involve students in activities that give them real experiences, facilitating learning. Internships involve training in a particular field / job for the development of the participant's career without the need for prior experience. Internships involve an exchange of services between the participant and an organization, where the student can decide whether the career field is really right for him or her to develop a network of contacts or even receive permanent job offers in the organization after completion of the traineeship. The difference to S-L is the emphasis on learning, the student being the primary

beneficiary - and the program built to develop his skills, not being oriented towards the community.

Field Education includes types of programs that offer students co-curricular opportunities which are related but not fully integrated into the academic curriculum (Furco, 2011). Students offer the service as part of a program developed largely to facilitate understanding of a field of knowledge, but also emphasizing the quality of service offered. Such programs are often found in higher education institutions or the pre-university environment where students or students offer services to a school to improve their teaching skills. The focus of these types of programs tends to be to maximize the notions learned by the student, and not necessarily the community, this being the difference from an S-L program.

1.4. Cross-sectional processes in S-L

Each S-L program contains a series of cross-sectional processes that run throughout the service and infuse each stage of the service (CLAYSS, 2013):

a. *The S-L Reflection Process*

Reflection during and after the S-L program allows students to become aware of the emotions and learning that is in progress, to consolidate their knowledge and to make a substantial contribution to the educational institution they are part of. The reflection process is linked to the following two processes (recording and evaluation), allowing them to collect and quantify S-L experiences. Reflection is a mean-building process that guides the learner from one experience to the next, facilitating the in-depth understanding of relationships and connections between experiences and concepts. It is, according to the author, the thread that makes the continuity of learning possible and assures the progress of the individual and the society (Rodgers, 2002 apud Dewey, 1910).

Reflection streamlines the learning process at each stage (CLAYSS, 2013): (1) Reflection during the S-L experience contributes to: critical thinking development, understanding and expressing emotions, problem solving skills, (2) reflection related to assessment is useful in the evaluation of experience, (3) reflection related to the registration and systematization process - is focused on systematizing and recording the experience in order to organize a portfolio of experience.

b. *The S-L Recording and Communication Process*

The systematic recording is a process that contributes to the collective consolidation of learning and the phenomenon as a whole. It is essential for participants because it helps them increase their civic action. There are a number o various recording tools: group, individual or project logs, individual or group portfolios of the project, artistic presentations, institutional publications, forms.

Communication is also a permanent process that infuses all stages of the S-L project and can take place between project participants (students / students, institution staff, community).

c. *The S-L Evaluation Process*

The cross-evaluation process focuses on experiences by analysing successes and difficulties, and aims to analyze the state of actions, expectations and objectives of the program. The authors (CLAYSS, 2013) suggest that evaluation should be included in all stages of development of the program: (1) before its development, to evaluate the project

design, (2) during its implementation, to monitor and apply changes (3) at the end of the project to assess whether the objectives have been achieved, the degree of program effectiveness and its impact, (4) after a certain period of time, to identify new development opportunities, to ensure its sustainability and eventually to redefine the goals. Authors also suggest to assess the learning quality (knowledge, attitudes, skills), community service quality, group dynamics, individual performance and the impact factor on university and community members (CLAYSS, 2013).

1.5. S-L Impact on Students

Literature research suggests that S-L has significant positive effects on academic performance, with the strongest effects obtained through tutoring programs (Conrad & Hedin, 1991): S-L develops writing skills, critical thinking, increases the GPA (grade point average) of students, with the most powerful effect mentioned on writing skills (Astin et al., 2000). Conrad and Hedin (1982) (Johnson & amp; Notah, 1999) mention significant strong effects on problem solving and increased development of moral reasoning, and moderate effects in mathematics or reading (Conrad & Hedin, 1991 apud Harrison, 1987). Other researchers have focused on the S-L effect on core processes of thought, problem solving, critical thinking and orientation towards diversity (Conrad & Hedin, 1991 apud Wilson, 1982). The results show that students who participated in S-L programs in the school and community became more open-minded, and their ability to solve problems as measured by response times to a number of daily situations has increased. Moreover, the ability to analyse their problems was enhanced when they encountered similar problems with those presented in the test situation, but also when the program deliberately focused on problem solving.

S-L also influences the psychosocial development of participants by increasing personal and social responsibility (Conrad & Hedin, 1991 apud Hamilton & Fenzel, 1988), developing prosocial attitudes, increasing self-esteem, developing feelings of appreciation towards cultural diversity (Conrad & Hedin , 1991, Simons & Cleary, 2006), increasing activism and promoting racially positive attitudes (Astin et al, 2000). And perhaps the most important aspect mentioned in many investigations is the qualitative one, namely the students' feeling that their actions can make a difference for the community (Simons & Cleary, 2006; Astin et al., 2000;) and sense of own actions (Conrad & Hedin, 1991).

1.6. From S-L to E-S-L

E-Service-Learning (E-S-L) keeps the basic features of S-L, the difference being the use of online hosting environments. Thus, E-S-L is defined as the process in which the training or service component (or both at the same time) takes place online (Waldner et al., 2012). The stage of development of E-S-L is currently embryonic, emerging, with few research mentioned over the past decade.

When E-S-L is combined with online learning, authors refer to the phenomena as to a "symbiotic educational relationship" (Waldner et al., 2012 apud Bernett & Green, 2011) - because online courses offer the accessibility to those who in difficulty of being physically present and opportunities to practice abilities, interaction through feedback / chat with colleagues and instructors / tutors and multiple forms of communication (written, live-chatting, audio, video), opportunities to evaluate the program and their own skills, sequences of reflection to contemplate on instruction and service, the possibility to personalize their products, etc.

1.7. Digital-Natives

Prensky (2001) argues that today's students and students have different thinking patterns and process information differently due to being "native speakers" of the computer,

internet, video and application languages. Moreover, today's digital natives interact (communicate, share, exchange), create, coordinate, meet, evaluate, learn, search, analyse, report, socialize and evolve differently (Prensky 2004) due to prolonged exposure to new technologies. The core variable that requires changes in every major area of society, especially in education, is the Web 2.0 era. Conceptualized for the first time by Berners-Lee (2005), Web 2.0. refers to "*a collaborative environment, a place to socialize, create content and read*". Web 2.0 brings new resources and practices for the digital native and has substantial education potential (Crook, 2012). Furthermore, the "new web" also focuses on user experience (UX) through user-centered design and other user interaction practices to make online experience enjoyable, engaging, stimulating and productive for users, especially for students (Crook, 2012).

Chapter II. RESEARCH OBJECTIVES

2.1. General objectives of the doctoral research project

This PhD thesis aims to take a first step towards the institutionalization of community-based learning in universities by investigating the current position of S-L implementation in a higher education institution (Babeş-Bolyai University, Cluj-Napoca, Romania) by offering a series of pathways alternatives to efficientize the pedagogical training of digital-native students through S-L, together with focusing on the potential of web 2.0 resources in self-education and access facilitation for all teachers enrolled the training programs regarding the understanding and implementation of S-L pedagogy. Thus, this paper takes action as well as in the direction of the S-L elaboration process in order to increase work satisfaction performance, and insertion of novices into the labour market as expert teachers.

The original contribution of this PhD thesis is structured in six distinct stages, consisting of six semi-independent methodological studies, whose itineraries contribute to the S-L literature both independently and subsumed as co-dependent stages towards achieving the overall research goal.

2.2. Specific objectives of the doctoral research project

The research objectives of study 1 are the collection, sorting and analysing data from the literature, following previously established criteria, on the typology and methodology of E-tutorial programs designed for the digital-native student. This systematic review of the literature aims to improve scientific knowledge by shaping a specific profile outline of the e-tutorial programs for digital natives, which can serve as a methodological guide in developing future programs of this type.

Study 2 aims to investigate the impact of S-L on the pedagogical training of students, to test the effectiveness of a pedagogic e-tutorial program (PedTut) in increasing civic attitudes, competences and self-efficacy of future teachers. The study has the following objectives: 1) Developing a S-L tutorial offered by students for students in order to streamline their pedagogical training; 2) Development of an interactive educational platform PedTut for hosting the e-tutorial program; 3) Implementation of the S-L e-tutorial program in the case of the selected experimental sample; 4) Testing the effectiveness of the S-L e-tutorial program (and implicitly the educational platform functionality) by comparing the levels of the dependent variables (civic attitudes, attitudes of diversity, self-efficacy, interpersonal skills and problem solving, subjective happiness).

Study 3 aims to investigate recent literature on S-L courses designed to improve the learning experience of future teacher and to systemize research results based on research questions, therefore to enrich scientific knowledge by shaping a good practice profile for designing the S-L curriculum of programs, respectively for their implementation.

Study 4 aims to adapt, translate and linguistically validate (from English to Romanian) an existing instrument that evaluates the results of S-L programs at the level of participants, in terms of civic attitudes, interpersonal skills and problem-solving and attitudes towards diversity.

Study 5 continues the research trajectory by refining and expanding the initial PedTut I model. The aim of this study is to restructure, continue and expand the PedTut I online tutoring program in PedTut II, according to a validated model of S-L insertion in academic institutions as proposed by CLAYSS (CLAYSS, 2016).

Study 6 aims to collect and systematize information on S-L institutionalization issues at Babeş-Bolyai University for setting out premises to create an overview on this issue, with the following objectives: 1) Development of a S-L pre-requisites evaluation tool for implementation in universities in Romania, using Babeş-Bolyai University as a case study; 2) Investigation of the pre-requisites for S-L implementation in universities including the level of popularity of the concept, the attitudes and availability of teachers for SL activities and programs, the needs of teachers related to S-L and the level of institutionalization of S-L in BBU.

Chapter III. ORIGINAL RESEARCH CONTRIBUTIONS

Study 1 – A Profile Outline of Higher Education E-Tutoring Programs for the Digital-Native Student – Literature Review

3.1.1. Introduction

Traditionally, education was designed and conceptualized as a face-to-face instructional process aiming to support and develop students' personality and native potential to their fullest. This educational ideal (i.e. the main goal of a country's educational system) still supports the same core beliefs today, but the means and channels of designing the instructional process had to continuously adapt to the social and technological changes, so that they can meet today's digital natives expectancies.

According to Prensky (2001), today's students have different thinking patterns and process information differently by virtue of their "native-speaking" ability of the digital language of computers, internet and video games. Moreover, today's digital natives interact (communicate, share, exchange), create, meet, coordinate, evaluate, learn, search, analyse, report, socialize and evolve differently (Prensky, 2004), due to a lifetime of exposure to new means of technology. The nucleus variable imposing changes in every major field of today's society, especially in education, is the reigning of the Web 2.0 era. First described by Berners-Lee (2005), the concept refers to "*a collaborative medium, a place for all to meet, read and write*". The Web 2.0 brings forward new tools and practices for the digital tech and it appears to have a great potential for the transformation of education (Crook, 2012). Web 2.0 is driven by user-generated content for a more efficient and time-saving information exchange. Moreover, the new web is also focusing on the user's experience (UX) through

user-centred design and other user interaction practices, so that the online experience becomes pleasant, entertaining, incentive and productive for users, especially students.

E-tutoring

The term e-tutoring has extended the framework of traditional tutoring, so that its purpose could be achieved in the virtual environments as well. Thus, e-tutoring refers to individualized support from a tutor to a single or a small group of tutees that uses the Internet as its medium of communication (Flowers, 2007; Johnson & Bratt, 2009 apud Corrigan, 2012). The online tutor refers to any person undertaking a role to support and enable students to learn online effectively (Higginson, 2000 apud Kumar & Jayaraman, 2012) and it implies a broad spectrum of functions: the setting and administration of learning-environments as well as technical and social support (Kerres & Thomas, 2000 apud Adamus et al., 2009). There are numerous studies demonstrating the effectiveness of traditional and online tutoring as a valid form of intervention ((Biesinger & Crippen, 2008; Fuchs, Fuchs et al., 2008; Fuchs, Seethaler et al., 2008; Means, Toyama, Murphy, Bakia, & Jones, 2009; Merriman & Codding, 2008; Song, 2005 apud Corrigan, 2012), but, in order to design an optimal e-tutoring program, one should first review the existing programs and identify the specific elements related to the efficiency of these programs at all the potential levels regarding their implementation (i.e. technological support, categories of tutees and tutors, outcomes of the e-tutoring etc.).

3.1.2. This study's research questions are:

(1) Which are the aims of recent research in the field of e-turoring?
(2) Which types of instruction are mostly used in e-tutoring?
(3) What are the most common e-tutoring categories and types?
(4) What is the length of the e-tutoring program?
(5) What types of computer technology are most common in e-tutoring programs?
(6) Which research designs and data analysis models yield the best results in e-tutoring?
(7) What challenges does e-tutoring bring?

3.1.3. Methods

In order to accurately analyse the relevant literature in the field of e-tutoring, the chosen method for this paper was *systematic review*. Systematic review is a process that follows an exact algorithm for identifying, evaluating and interpreting research materials to answer a number of research questions; the purpose of the systematic review is to summarize the research by conducting a synthesis, in a systematic procedure on three stages, on research resources (Judi & Sahari, 2013 apud Kitchenham & Charters, 2007). In the first planning stage of this paper, we conducted an analysis to identify the need of such a review, develop a review protocol and outline the research questions, as the systemic review process suggests (Judi & Sahari, 2013). As we already presented the rationale in the introduction of this paper, there is a need of improving the special elearning support for the digital-natives through e-tutoring in pursuance of their new expectations from today's educational system. Thus, the investigation of recent literature and major advances in the field is needed.

In the second phase, we established a research protocol to examine the relevant literature on e-tutoring, as the authors suggest (Judi, & Sahari, 2013 apud Kitchenham & Charters, 2007). The search engine used was ANELiS (http://www.anelis.ro/), a program developed by the Da that offers Romanian university students free mobile access to a wide range of scientific databases. The protocol applied the following searching keywords: "E-tutoring/ Online

tutoring" and "Higher education" and the search included all disciplines available, and as for content, all journal articles, books & e-books, conferences, dissertations and trade publishing articles. The search was filtered so that the result would yield the full text of the paper. The eligibility criteria were:

(1) research papers published between 2010-2015 and written in English,

(2) research papers had to address students enrolled in higher education (18+ years) and

(3) research papers had to discuss the solely topic of e-tutoring in higher education.

Papers were excluded from this review if the eligibility criteria were not met or if the subject focused solely on other fields, such as distance learning, e-learning or other virtual environments.

3.1.4. Results and discussion

The ANELiS search protocol yielded an initial number of 38 papers that was reduced to 15 papers addressing the topic of e-tutoring. Using the exclusion criteria, 7 papers were rejected from the further analysis, that lead to a total of 8 valid papers focusing on e-tutoring in higher education and published between 2010-2015.

Research question 1: Which are the aims of recent research in the field of e-tutoring?

Recent research focuses mainly on improving in-depth retention or interactive learning (Poor & Brown, 2013; Lin & Yahg, 2013; Arco-Tirado et al., 2011; Peacock et al., 2012), developing future job-related skills (Doukakis et al., 2013; Herzog & Katzlinger, 2011 ; Rusu, Copaci & Soos, 2015), but also assess the quality of between tutor and tutees (Hodges et al. 2014). While some studies focus more on the development psychological variables in students, such as cognitive and metacognitive learning strategies, social skills, self-efficacy, happiness and civic attitudes (Arco-Tirado et al., 2011; Rusu, Copaci & Soos, 2015), others focus towards enhancing students' procedural knowledge and skills (Herzog & Katzlinger, 2011; Doukakis er al. 2013). The various directions of research in the e-tutoring field brings forward the adaptability and the potential of such support programs in higher education, whether they are designed for learning enhancement or preparing students for future jobs.

Research question 2: Which types of instruction are mostly used in e-tutoring programs?

Based on the S-L categorization proposed by Waldner et al. (2012), we divided the e-tutoring programs into two categories: classical e-tutoring that imposes on-line and at least two face-to-face meetings with the tutees, and extreme, ex-tutoring that only requires on-line interaction. The literature analysis shows that all studies adopted the classical e-tutoring, instruction involving at least two face-to-face meetings. Thus, it would be interesting to investigate the effects of such exclusive ex-tutoring programs on various variables in the future since there is no recent research in the field.

Research question 3: What are the most common e-tutoring categories and types?

The selected research predominantly utilized a teacher in the e-tutor role, with two studies that selected peer e-tutors to prevent academic failure or dropouts and investigate the benefits of peer-to-peer interaction (Arco-Tirado et al., 2011) and increase students' motivation and writing skills (Lin & Yahg, 2013). In both cases of peer-e-tutoring the intervention was statistically significant, as student-e-tutors managed to increase tutees' GPA, performance rate, success, learning strategies, social skills (Arco-Tirado et al., 2011) and develop positive attitudes towards the program, at both levels (i.e. e-tutors and e-tutees) (Lin & Yahg, 2013). These findings reinforce the premise that etutoring, peer-to-peer, Service-Learning programs are powerful curricular tools that upgrade multiple variables associated

with academic learning. More than half of the studies chose to conduct pre-e-tutoring-trainings for their tutors. On this matter, Lin & Yahg (2013) point out the importance of etutor-training, arguing that effective training is a critical issue, especially in the development of language skills and research.

Research question 4: What is the length of the e-tutoring programs?

Through this research question, we intended to investigate whether the length of the e-tutoring program influenced its efficiency, since Cohen and Kulik (1982) concluded, in a meta-analysis, that face-to-face tutoring programs were more effective when the length was reduced to four weeks or less. The analysis shows inconclusive results, since both short-term and long-term e-tutoring programs report statistically significant improvements in the measured variables.

Table 3.1.4.1. Length of the tutoring programs described in the reviewed literature

Element	Frequency
One academic year	2
One semester or more	2
Less than 4 weeks	3
Between 4 weeks and 1 semester	1

Research question 5: What types of computer technology are most common in e-tutoring programs?

There is a variety of software researchers used as vehicle for the program implementation. The most common environments were educational platforms: existent and adapted to the purpose of the study such as Blackboard Collaborate (Doukakis et al., 2013), Online Synchronous Learning Environments (Peacock et al., 2012) and designed especially for the e-tutoring program, such as PedTut (Rusu, Copaci & Soos 2015).

Research question 6: Which research designs and data analysis models yield the best results of the e-tutoring programs?

Half of the papers utilized a solely qualitative research design that used methods such as individual interviews and students' feedback content analysis (Doukakis et al., 2013) or group interviews, content analysis, class observation, discourse and content logs analysis (Lin & Yahg, 2013), content examination of e-tutoring exit surveys (Poor & Brown, 2013) or analysis of video diaries (Peacock et al., 2012). On the other hand, the other half of the papers is characterized by mainly quantitative approaches for their increased external and ecological validity and combines them with qualitative, content analysis or interviews as to gain a more specific insight into the issues studied. The most common quantitative methods were pre-test and post-test comparisons with experimental and control groups (Rusu, Copaci & Soos, 2015; Hodges et al., 2014; Arco-Tirado et al., 2011), also doubled by content analysis.

Research question 7: What challenges do e-tutoring programs bring?

Apart from the multiple benefits of e-tutoring on learning processes, cognitive and meta-cognitive skills, social, personal and academic development, online communication also has its challenges that need to be taken into consideration for further design optimization of e-tutoring programs. Less than half of the papers chose to report their challenges (Rusu, Copaci & Soos, 2015; Doukakis et al., 2013; Lin & Yahg, 2013. Issues were related to the instability of some platforms, lack of self-confidence regarding the digital literacy skills, cautious attitudes (Rusu, Copaci & Soos, 2015; Doukakis et al., 2013;). Students might have also

perceived the supplementary e-tutoring course as extra academic work, resulting in low levels of participation (Rusu, Copaci & Soos, 2015).

3.1.5. Conclusions

The current chapter used a systematic review protocol to analyse the latest research on the e-tutoring programs (i.e. 8 studies from 2010-2015 met the inclusion criteria). The results indicate the latter aims of research, most common types of instruction, categories and types of e-tutoring, various lengths of such programs, types of computer technology mostly used, the best research designs and data analysis methods and challenges arisen during the research. The investigated literature reveals an on-going preference for trained-e-tutors programs since 5 out of 8 programs assigned their e-tutoring content to previously trained e-tutors. Another highlight of this review is the predilection to use teachers as tutors, as 5 out of 8 programs were teacher-student e-tutoring programs, whereas only 3 programs chose the peer-to-peer e-tutoring wireframe. The findings from this study may serve as a premise for combining Service-Learning with such e-tutoring programs, considering that peer-to-peer instruction is underrepresented in the field literature and holds great potential for increasing GPA, performance rate, success, learning strategies and social skills of tutees (Arco-Tirado et al., 2011). Moreover, the educational platform appears to be the preferred form for delivering e-tutoring programs, so greater attention should be given to developing such platforms on the grounds that they are accessible, user-friendly, user-centred designed, with multiple opportunities for data accessibility and analysis, thus being suitable for the digital-native student.

Study 2 - The Impact of Service-Learning on Improving Students' Teacher Training: Testing the Efficiency of a Tutoring Program in Increasing Future Teachers' Civic Attitudes, Skills and Self-Efficacy

3.2.1. Introduction

Service-Learning (S-L) is an educational philosophy that directs learning to the well-being of the community and is currently earning its well-deserved popularity in contemporary pedagogy. S-L is a pedagogy characterized by reflection that combines community service with well-structured opportunities for learning (Heffernan, 2001). Inspired by the progressive educational trend of John Dewey (1910), education in S-L is focusing on developing students' potential through the greater purpose of sustaining local community. The precise meaning of the term S-L implies that the service (activity and/or program) is designed as to meet the needs of students' local community, is coordinated with an academic institution or a community service program, is meant to develop students' civic responsibility, it is integrated in the school's curricula and offers students a temporal sequence of reflection upon the completed service experience (Billing, 2000). More precisely, S-L has been defined as a curricular tool that "…*seeks to engage individuals in activities that combine both community service and academic learning. Because Service-Learning programs are typically rooted in formal courses (core academic, elective, or vocational), the service activities are usually based on particular curricular concepts that are being taught*" (Furco, 2002 apud Rusu et al. 2014).

The emblematic characteristic that shapes S-L as a powerful curricular tool is the specific learning process that develops during a S-L program. Thus, learning becomes social, emotional, cognitive, multicultural and interpersonal (Simons & Cleary, 2006). More precisely, through S-L, students develop skills that help them observe, identify and distinct between other people's emotions, manage (perceive, evaluate and express) their own emotions, establish and maintain positive relationships, make responsible decisions, cope responsibly with new interpersonal situations, enhance academic performance (Elias et al., 1997 apud Durak et al., 2011). Also, S-L offers, through multicultural learning, the opportunities to explore and to understand multicultural perspectives by harnessing and investigating the individual differences in cognitive patterns revealed during the learning process (Alexander & Chomsky, 2008).

Most of the educational institutions that have implemented S-L in their curricula have prospected the development of students' civic and diversity attitudes (Markus, Howard & King, 1993; Moely et al, 2002; Simons & Cleary, 2006; Buch & Harden, 2011). By virtue of the fact that S-L programs also employ attaining educational goals through operational objectives and permit applying academic attained knowledge in real-life situations, such programs might contribute to the academic and personal development of the participating student. The existing literature supports these premises: S-L helps develop writing skills, critical thinking, they help raise the students GPA scores (Astin et al., 2000; Conrad & Hedin, 1991), expand problem-solving skills and moral thinking - the higher effects obtained at this level are due to specific, S-L tutoring programs (Conrad & Hedin, 1991). At the psychosocial level, S-L programs help develop personal and social responsibility, positive social attitudes, civic action, political awareness, appreciation of diversity attitudes, self-efficacy levels and the feeling of being able to "make a difference" in the community (Simons & Cleary, 2006; Conrad & Hedin, 1991; Hamilton & Fenzel, 1988).

We consider that, students, in general, and particularly the ones that have decided to enroll themselves in training programs aimed to offer them competences in Pedagogy (i.e. full undergraduate programs in Educational Sciences or training modules), represent valuable resources for the implementation of S-L activities. These students are expected to further work in educational contexts with children or other students and become educational, civic but also human interaction models for the youth of our society. In this context, students could benefit from the S-L related competencies that evolve by virtue of enrolment in such tutoring, service programs. Moreover, online, E-S-L programs, such as this particular one could facilitate the development of such related competencies through the elimination of time, space and communication barriers and facilitation of accessibility for students with disabilities.

3.2.2. Objectives

1. Developing a tutoring S-L program offered to students by students to aid their pedagogical training.
2. Developing an online educational Platform to host a Personal Reflection Journal for the tutees with feedback options for the tutors – PedTut.
3. Implementation of the tutoring program for the experimental sample of students.
4. Testing the efficiency of the tutoring program and the PedTut platform by the students of the Faculty of Letters enrolled in the Pedagogical Training program but also students from the Pedagogical Department of the Faculty of Psychology and Science of Education, Babes-Bolyai University, Cluj-Napoca.

5. Evaluating the levels of subjective happiness, civic attitudes, interpersonal problem solving skills, appreciation of diversity, self-efficacy and social desirability of the participants.
6. Comparing the measured levels of civic attitudes, interpersonal problem solving skills, attitudes of diversity, self-efficacy, subjective happiness and social desirability of the experimental group that took part in the tutoring-testing program with the control group that was not involved in the program.

3.2.3. Hypotheses

1. After completing the tutoring program, there shall be a significant increase in students' levels of civic attitudes (civic actions, interpersonal problem solving skills and attitudes of diversity) from the experimental group compared to the students from the control group
2. After completing the tutoring program there shall be a significant increase in students' from the experimental group of subjective happiness levels compared to the students from the control group.
3. After completing the tutoring program there shall be a significant increase in the experimental group's selfefficacy compared to the control group.
4. Students' reported Grade Point Average will correlate with their subjective happiness, volunteering and with their attitudes of diversity.
5. Students' civic actions will correlate with their attitudes towards diversity.
6. Students' self-efficacy will correlate with their religiousness and attitudes of diversity.

3.2.4. Design, participants, procedure, instruments

The research design was a basic ABA experimental design with acontrol group. The independent variable is the intervention represented by the tutorial program for increasing the pedagogical training of the students, and the dependent variables are: the civic attitudes of the students (which are operationalized through civic actions, interpersonal and problem-solving skills, opening up to diversity) well subjective students, respectively the level of self-efficiency of students as future teachers.

Participants

The initial participants were 36 students majoring at the Faculty of Letters enrolled in the Pedagogical Training Program offered by the Pedagogical Department of the Babes-Bolyai University (N=10), and also students of the Faculty of Psychology and Science of Education, majoring in Pedagogy (N=26). This sample's initial reported data was taken into consideration for hypotheses 4 to 6. After the three weeks intervention period, the sample size was reduced to 18 valid participants (as shown in Table 1) for this pilot study. Because the social sciences and teaching fields tend to be female biased in Romania, our sample consisted of 100% females of Romanian ethnicity, aged between 21 – 36 years, with a mean age of 22.5 (3.45). 61% of the sample reported that they have volunteered before, and 14 participants stated a mean grade point from previous semester of 8.90 (.764) with mean grades ranging from 7.37 to 10, the academic grade rating system in our country ranging from 1 to 10. The sampling was initially randomized, half of the initial sample getting initial access to the PedTut platform. However, in order to increase their motivational levels of participating, we individually approached, via e-mail, each of the participants, giving them the choice and opportunity to participate. Thus, we consider that the selection of the participants was of convenience.
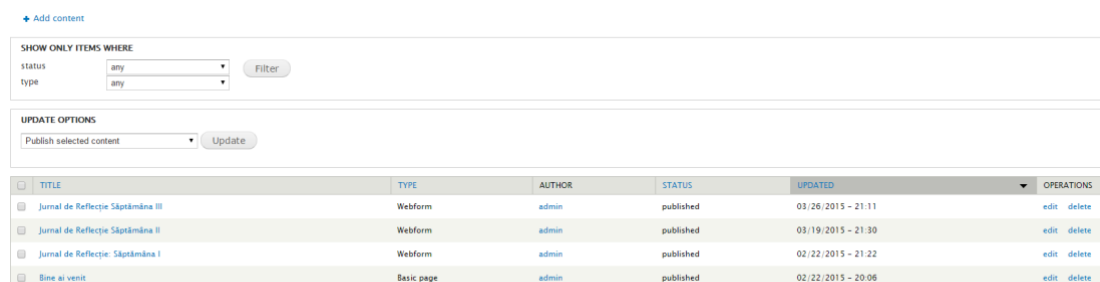
Procedure

During the academic year of 2014-2015, the second semester, students from the Babes-Bolyai University, Faculty of Letters and from the Faculty of Psychology and Science of Education were asked to participate voluntarily in this research. The inclusion criteria for the subjects were majoring in Pedagogy or taking part in the Pedagogical Training Module offered by the Science of Education department, currently in their first year of teaching practice. The pretest data was collected before entering the applied teaching practice, during their first seminars of the semester. The questionnaires were completed in paper-pencil format, before and after the intervention by both groups. Those who could not attend the final completion session were given the opportunity to complete the postquestionnaires online, on the PedTut platform.

After the pre-test, students were asked to reflect on their teaching practice by answering a short reflection diary, once a week, after the class they taught. The reflection diary contained items related to situations encountered during practice: positive experiences that link to happiness by reflection, difficulties, conflicts, problem-solving strategies they used, alternatives to the problem-solving process, worry thoughts and a text area field were they could ask the tutor for advice on methodological issues. Each student from the experimental group completed the diary 3 times, during the first 3 weeks of practice. The PedTut platform was actively used by both sides of the pilot study (the tutor and the students from the experimental group). The administrator (the tutor) of the platform has the options of creating multiple content (reflection diaries, informative posts, other web forms) by using different input items, such as: email input, multiple choice input, radio buttons and text area inputs. The administrator held all inputs written by students, which were confidential and can be categorized on different preset variables like initial, social security number, e-mail of student. The administrator has a text area from where to offer quick feedback to the students, that would be sent via e-mail further to the recipients, by the server.

The platform also serves as a cloud space for storing academic content for students. On the other side, the students could complete the reflection diary without logging in or creating an account, the platform identified them on a preset variable. In maximum 24 hours from the completion of the diary, the student received feedback and advice from the tutor on hers email, without the need of logging on the platform to check the message. Both groups completed the post-test at the final, 3-week period of the intervention. The participants did not receive any reward, since the service program is community-oriented.

Figure 3.2.4.1. PedTut – Content creation & administration (Rusu, Copaci & Soos, 2015)

Measures

Civic Attitudes. For the measurement of students' civic attitudes, the Civic Attitudes and Skills Questionnaire – CASQ (Moely et al., 2002) was used. Specifically, 3 subscales of the inventory were used: (1) the Civic Action subscale, (2) the Interpersonal Problem Solving Skills subscale and (3) the Attitudes of Diversity subscale. The Civic Action subscale measures respondents' intent of getting involved in civic-oriented activities on a 5-point Likert scale. The internal consistency of the scale is .88 (Moely et al., 2002), and we found an Cronbach's Alpha coefficient of .807 (see Table 3). The Interpersonal Problem Solving Skills subscale contains 12 items scored on a 5-point Likert scale and measures the respondent's problem-solving strategies. The internal consistency of the subscale ranges between .79 - .80 (Moely et al., 2002) and the Cronbach's Alpha coefficient we found is .709 (see Table 3). The Attitudes of Diversity subscale is made of 5 items scored on a 5-point Likert scale and measures respondents' attitudes towards people with different cultural backgrounds. The internal consistency of the scale ranges between .70 - .81 (Moely et al., 2002).

Subjective Happiness. In order to measure students' subjective happiness (as one of the affective components of the well-being state), the Romanian translated version of the Subjective Happiness Scale developed by Lyubomirsky (1999) was used. The 4-item scale contains affirmations that refer to the general and particular perceived happiness state and is scored on a 7-point Likert scale. The test-retest fidelity of the scale is r=.72, the convergent validity is .62 and the Cronbach's Alpha ranges between .79 and .94 (Lyubomirsky, 1999). In our study, an alpha coefficient of .351 was found for the Subjective Happiness scale.

Teacher Self-Efficacy. For measuring the beliefs that students have on the control of their own teaching skills, the Romanian translated version of the Teacher Self-Efficacy Questionnaire (TSEQ, Schwarzer, Schmitz & Daytner, 1999) was used. The questionnaire is comprised of 10 items that evaluate one's perceived major teaching skills on four dimensions: accomplishing professional tasks, developing skills on the job, social interaction with students, parents and colleagues and the stress versus coping mechanisms associated with teaching. The answers are scored on a 4-point Likert scale, the TSEQ having a .76 testretest fidelity and a Cronbach's Alpha ranging from .76 to .82 (Schwarzer, Schmitz & Daytner, 1999). The Cronbach's Alpha that we found is r=.819 (see Table 3).

Social Desirability Bias. To test the participants' social desirability bias we used the Romanian translated version of the Balanced Inventory of Desirable Responding (BIDR, Paulhus, 1991). The Inventory consists of two subscales: a scale that measures (a) positive self-deception (SDE) and another that evaluates the (b) impression management (IM). The scale consists of 40 items, 20 for each scale, scored on a 7-point Likert scale. The scale has an internal consistency ranging from alpha .68 to .80 for the SDE subscale and .75 to .86 for the IM subscale. Test-retest reliability of the scale is r=.69 (SDE) and r=.65(IM) (Paulhus, 1991).After translation, we eliminated 2 items, one from both subscales, that referred to driving, implying that each student has a driving license, which does not apply to our population. We found a Cronbach's Alpha of r=.542 for the SDE subscale, r=.801 for the IM subscale and r=.804 for the entire scale.

3.2.5. Results

Data analysis was performed by using the SPSS Statistics V7 software. The following quantitative statistical analysis were conducted in order to test the hypotheses 1 to 6 mentioned above: Person's Correlations (Table 3.2.5.1. & Table 3.2.5.2.), Independent Sample T-Tests, Reliability Analysis of the scales (Cronbach's Alpha Coefficient) (Table 3.2.5.2), Descriptive Statistics and an online Effect Size Calculator (Cohen's d) (Table 3.2.5.2.). Person product-moment correlation coefficient was computed to assess the

relationships between the following study variables: Grade Point Average, Civic Action, Teacher Self-Efficacy, Subjective Happiness levels, Attitudes of Diversity, perceived Religiousness and involvement in any volunteering activity in the past. There was a significant correlation between the two variables Grade Point Average and Volunteering (r = .430, n = 36, p = .025), but also between Civic Action and reported Attitudes of Diversity (r = .365, n = 36, p = .029). There was a nonsignificant, but moderate correlation between the Teacher Self-Efficacy and Subjective Happiness variables (r = .312, n= 36, p = .064) and a non-significant, but moderate tendency of association for Teacher Self-Efficacy and Attitudes of Diversity (r = .319, n=36, p = .058). Moreover, there was a moderate, but not significant tendency for a negative association between Teacher Self-Efficacy and Religiousness (r = -.273, n=36, p = -.273), and Religiousness with Civic Action variables (r = -.277, n = 36, p = .102).

Table 3.2.5.1. Pearson Correlations Among Study Variables (measured in the pre-test condition)

	Subjective Happiness	Attitudes of Diversity	Religiousness	Volunteering activities
GPA	.151	-.039	.261	.430*
Civic Action	.144	.365*	-.277	.009
Self-efficacy	.312	.319	-.273	.284

Note: *p <.05

Independent-sample t-tests were conducted to compare the Civic Actions, Interpersonal Problem Solving Skills, Attitudes of Diversity and Subjective Happiness level in the tutoring and no tutoring conditions (Table 3.2.5.2.). There was a significant difference in the scores for student's Attitudes of Diversity from the tutoring group (M=31, SD=4.26) and no tutoring (M=35.6, SD=3.24) conditions; t(34)=2.59, p=0.022, with an effect size of d= 1.21. A difference in means could also be observed in the two groups' Teacher Self-Efficacy, but there was no notable significant difference when the independent sample t-test was conducted for the group in the tutoring condition (M=37.6, SD=4.14) and no tutoring condition (M=35.7, SD=3.73); t (34)=.983, p=.340, d=.482. Moreover, we could not dismiss the null hypotheses for the other variables, hence there was no significant differences in the Civic Action scores for the tutoring (M=30, SD=3.59) and no tutoring (M=30.1, SD=4.42) conditions t(34)=.252, p=.804; no significant differences in the Interpersonal Problem Solving Skills scores for the tutoring (M=52.2, SD=6.79) and no tutoring (M=54.7, SD=2.43) conditions t(34)=1, p=.329. Also, no significant differences between the Subjective Happiness scores for the tutoring (M=22.5, SD=4.22) and no tutoring (M=21.1, SD=5.81) conditions were found, i.e., t(34)=.582, p=.569.

Table 3.2.5.2. Means, Standard Deviations, Cohen's d and Alpha Cronbach for the Measures of Students' Civic Attitudes, Interpersonal Problem Solving Skills, Attitudes of Diversity, Subjective Happiness and Teacher Self-Efficacy.

	Group*	Pre-test M (SD)	Post-test M (SD)	t (two-tailed significance)	d Cohen	Alpha Cronbach
Civic Action	1	26.4 (3.74)	30.6 (3.59)			
	2	26.9 (4.45)	30.1 (4.42)	.804 (n.s.)	.124	.807

Interpersonal and problem-solving skills	1	51.2 (4.91)	52.2 (6.79)			
	2	53.61 (4.02)	54.7 (2.43)	.329 (n.s.)	-.490	.760
Attitudes of Diversity	1	29.1 (5.60)	31 (4.26)			
	2	31.23 (4.71)	35.6 (3.24)	.022**	-1.21	.343
Subjective Happiness	1	22 (2.86)	22.5 (4.22)			
	2	21 (4.20)	21.12 (5.81)	.569 (n.s.)	.217	.351
Teacher Self-Efficacy	1	34.4 (3.89)	37.6 (4.14)	.340	.482	.819
	2	33.7 (4.06)	35.7 (3.73)			

To test the reliability of each inventory translated and used in this study, Cronbach's Alpha coefficients were computed (Table 3.2.5.3.). The Civic Action (CA) subscale consisted of 7 items (alpha=.807), the Interpersonal Problem Solving Skills (IPSS) subscale consisted of 12 items (alpha=.760) and the Attitudes of Diversity (AOD) subscale consisted of 8 items (alpha=.343). Overall, the Civic Attitudes and Skills Questionnaire (CASQ) was found to be overall highly reliable (26 items, alpha=.776). The Subjective Happiness (SH) scale consisted of 4 items (alpha=.351) and the Teacher Self-Efficacy Questionnaire (TSEQ) consisted of 10 items (alpha=.819).

The explanation for the low alpha coefficient found for the AOD subscale and the SH scale could be that students access and shift between different metacognitive levels in their self-evaluation of diversity attitudes, but also that happiness in this case was assessed as a contextual dependent variable, as the questionnaire measures the general happiness state in the moment of selfreport. In the future, we could be more specific with the reference interval for the happiness state and suggest they refer to the last two weeks or to the last month when reporting their perceived levels.

Table 3.2.5.3. Correlations Between Students' Reported Answers on Study Variables and the Balanced Inventory of Desirable Responding (BIDR).

	BIDR
Civic Action	.230 (n.s.)
Interpersonal and Problem Solving Skills	.509**
Attitudes of Diversity	.382*
Subjective Happiness	.392*
Teacher Self-Efficacy	.272 (n.s.)
Religiousness	.307 (n.s.)
GPA	.899 (n.s.)
Volunteering	-0.33 (n.s.)

Besides the described quantitative analysis, correlations to evaluate the tendency of biased desirable responding were computed (Table 4). There was a significant correlation coefficient between the respondents' answers to the Interpersonal Problem Solving Skills subscale and BIDR (r=.509, n=36, p=.002), Attitudes of Diversity and BIDR (r=.382, n=36, p=.022),

respectively Subjective Happiness and BIDR (r=.392, n=36, p=.018). The explanation of the strong association between Interpersonal Problem Solving Skills and BIDR might be that this particular sample of students tends to over-claim their knowledge (both procedural and declarative) on this variable, since they will become teachers and models, a profession that, in our culture, is perceived as highly demanding of problem-solving skills.

3.2.6. Discussion, conclusion, limits and future directions of research

In this chapter we investigated the impact of an online S-L tutoring program on developing competencies associated with S-L (i.e., self-efficacy, subjective happiness, civic attitudes and skills) at the tutees level. Results suggested that students' attitudes towards diversity significantly increased after participation in the tutoring program, implying that, students (tutees) might be more open to interact with different cultures, have more positive attitudes towards unknown cultures and appreciate the value that cultural diversity adds to a group. Interestingly, while the attitudes of diversity changed, their levels of civic actions did not suffer any statistical significant change after the program completion, even though there was a significant correlation between the two variables. This might be due to the fact that the pre-test data was collected before the participants entered the teaching practice or even getting into contact with the class: thus, the teaching activity (i.e. involvement in the community by having contact with students, helping students in need) might have had the same amount of civic action undertones for both groups. In the future, it would be interesting to investigate these effects by shifting the pretest timeline from no interaction with practice to first week of practice. In addition, there was no significant difference in students' scores regarding their reported interpersonal problem solving skills, and their responses concerning this variable correlated the strongest with the social desirability bias. As presumed and detailed before, participants may tend to over-claim having interpersonal problem-solving skills due to their culturally perceived value of the teaching profession (i.e., social status-related benefits).

In our sample, there were no significant increases in students' subjective happiness level and selfefficacy levels after completing the S-L program. As we already suggested in the Results section, subjective happiness might have been interpreted as a contextual-changing variable due to the lack of mentioning a time-frame that the participants would refer to when answering (i.e. the last month, the last two weeks). However, even if there was no significant difference in students' teacher self-efficacy scores before and after the tutoring program, we could see a trend that is worth investigating on a larger, more representative sample. Additionally, in line with the existing literature (Astin et al., 2000; Conrad & Hedin, 1991), we found a significant, high correlation between students' GPA and the level of volunteering involvement, suggesting an association between service activities and increased academic performance (e.g. GPA). On the other hand, there was no correlation between students' GPA and their subjective happiness levels, respectively attitudes of diversity, suggesting that, in our sample, higher grades did not associate with increased, contextual happiness, neither with more positive attitudes towards people from different cultural backgrounds. Furthermore, there were no significant correlations between students' self-efficacy and their attitudes towards diversity. Likewise, the correlation analysis showed not significance for students' self-efficacy and reported religiousness levels, though the interesting finding was the tendency of a negative association between the latter two variables. This finding raises the need for further investigation of the association between religiousness and self-efficacy (e.g. if the promotion of modesty and humbleness of religion might associate with to low self-efficacy levels in students).

Besides the quantitative data analysis, we also conducted a qualitative analysis of the comments of participants, aiming to preliminarily reveal the potential needs that students have during their pedagogical practice program. The content analysis of the answers indicated that students encounter difficulties mostly in aspects related to time and class management, communication, the decision-making process in the planning for a lesson stage, but also emotional management. These findings will serve as an input to the optimization of the PedTut platform and to the pedagogical training of future students that will take part in the S-L tutoring program as tutors.

The limitations of the current study include a small sample size that was female-biased, so we could only generalize the results to the specific departments students belong to. Moreover, students responded reluctantly to the S-L tutoring program, as such skill enhancement programs are not that many in our educational culture, so there is no habituation yet to these kind of S-L based interventions. However, our pilot study indicates that even though the pedagogical training module offers students great skills and practice opportunities, there is still the need to further promote such skill-enrichment programs among students, since they might have perceived the written reflection phase of the S-L tutoring program not as a resourceful activity but rather as an extra academic work. Also, the reliability of the Subjective Happiness Scale and Attitudes of Diversity for our population needs to be addressed in further research on larger sample sizes.

In the near future, we aim to target students from all the twenty one faculties of Babes-Bolyai University and also enroll masters students to be trained as tutors for younger, bachelor-level tutees. Our focus will rely on extending this research on a larger sample size, addressing the para-content of the teaching variables and making it accessible for students, but also on promoting the benefits of S-L programs and encouraging the participation. Nevertheless, future research should also focus on different variables that might play an important role in the success of teacher training programs, such as self-acceptance, frustration tolerance or even rational versus irrational thinking, as well as on the types of individual expectances related to the outcomes of the pedagogical training modules.

Study 3 - Trends in Higher Education Service-Learning Courses for Pre-Service Teachers: a Systematic Review

3.3.1. Introduction

In recent years, educators have made great efforts to surpass the passive, traditional methods of instruction and to actively change the pedagogical process from one of knowledge transmission to one of knowledge transformation (Carringtonm & Selva, 2010) by approaching it through Service-Learning (S-L) lenses. S-L is defined as a reflection-oriented pedagogy that combines volunteering with well-structured learning opportunities (Heffernan, 2001), facilitating pre-service teachers' emergence from the theoretical world into professional practice, by engaging community service with academic content through well-defined operational objectives (Rusu, Copaci & Soos, 2015). The S-L philosophy is deeply rooted in the experiential approach on education, as argued by John Dewey, William Killpatrick (Kraft, 1998) and Jean Piaget (Conrad & Hedin, 1991). Based on the premise that experience is the foundation of education and that in order to understand the world, learners need to interact directly with it (Shellman, 2014), experiential education is a "philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities" (Association for

Experiential Education, 2015 apud Bowlby, 2015). If initially the S-L concept was solely and vaguely based on the experiential continuity and interaction principles – cases when the students' habits and educational experience would influence both current and future educational experiences (Jhonson & Notah, 1999), today's scientific and socio-economical advances bring forward a wide array of S-L successful implementation guidelines, course frameworks, checklists, positive outcomes proof, evaluation techniques and recommended practices.

Along these lines, there are numerous positive S-L outcomes that extend from personal to social and academic areas. Thus, a recent S-L comprehensive meta-analysis conducted on over sixty studies by Celio, Durlak and Dymnicki (2011), states that in comparison to control, students participating in S-L programs demonstrate significant gains in attitudes towards self, attitudes toward school and learning, level of civic engagement, social skills and academic performance and benefits regarding self-efficacy, self-esteem, more positive attitudes toward school and education, increased community involvement and gains in social skills relating to leadership and empathy. Moreover, research has further indicated that S-L promotes knowledge and understanding of civic and social issues, increases the levels of awareness and acceptance of diversity in general (Astin & Sax, 1998; Billig et al., 2005; Chang, 2002; Cress, Collier, Reitenauer, & Associates, 2005; Hamm & Houck,1998; apud Jenkins & Sheehey, 2011) and the attitudes towards diversity of the service-beneficiaries (Rusu, Copaci & Soos, 2015).

Consequently, S-L, as a flexible and cost-efficient instructional component, can offer mutual benefits to both the pre-service students and the society while developing crucial pre-requisites of teaching. While conceptually, the literature guidelines can assist us in designing better, more efficient S-L programs in the future.

3.3.2. This study's research questions are:

1. What are the purposes of the S-L programs?

2. What types of S-L programs are most common in pre-service teachers' education?

3. What is the hosting environment for the S-L experience?

4. What type of activities do the S-L programs imply?

5. What does the reflection component consist of?

6. What is the average length of the S-L programs?

7. How are the S-L programs evaluated?

3.3.3. Method

In order to outline the best practices in designing a S-L course curricula in higher education for pre-service teachers, the chosen method for this paper was the systematic literature review that follows an algorithm to summarize empirical studies on this particular topic, offers conclusions on the actual scientific knowledge base and reveals unresolved aspects that need further investigations (Cooper, 1998).

In the first planning stage of this paper, an analysis to identify the need of such a review was conducted, followed by the development of a review protocol and outlining of the research questions, as the systemic review process suggests (Judi & Sahari, 2013; Copaci & Rusu, 2015). As stated before, the academic community can benefit from the assistance of existing guidelines, checklists, frameworks or recommended practices in designing a rigorous and methodical S-L program, as well as from the previous recent practice.

Selection of studies
The inclusion selection criteria were the following:

- Studies had to be published in *English* or *Romanian;*
- Studies had to be published between 31.12.2009 and 1.02.2016;
- The publishing criteria had to be peer review journal articles, conference proceedings, dissertations and trade publishing articles;
- Studies had to address solely the higher education pre-service students.

The potential relevant studies were identified using several search engines, such as Einformation, ANELiS (http://www.anelis.ro/) and AnelisPlus (http://www.anelisplus.ro/), the latter being programs developed by the Romanian University and Research Institutes Association that offers Romanian university students free mobile access to a wide range of scientific databases. As follows, 679 studies were initially identified in the database, with 670 records remaining after the duplicates were removed. In the screening phase, from a total of 670 papers, 630 records were excluded, leaving 40 potentially satisfactory full-text articles. In the eligibility phase, 25 full-text articles were excluded, leaving a total of 15 eligible studies to be included in the qualitative synthesis. The 25 studies were excluded on the following grounds: missing S-L components (the reflection component, the community service component), the participants being in-service teachers already practicing pedagogy or other un-related student category (nutrition, healthcare, chemistry or not mentioned) that does not necessarily culminate with teaching activities, the service itself being conducted independently of the course's objectives (i.e. public service), the main focus being other courses for pre-service teachers or other types of education (informal education, non-formal education), unconnected to S-L.

3.3.4. Results and discussion

Research question 1: What are the purposes of the S-L programs ?

There were various research trends identified regarding the scope of S-L programs, thus emphasizing the adjustable nature of higher education S-L interventions. Nevertheless, all studies included in the current qualitative synthesis are student-centred, focusing mainly on enhancing the pre-service teachers' authentic learning experience (Green, 2011; Power & Bennet, 2015; Wallace, 2013) and their level of positive attitudes (Chang, Anagnostopoulos, & Omae, 2011; Carringtonm & Selva, 2010; Cone, 2012; Kim, 2012), as well as to ease the transition into practice per se (Coffey, 2011). Table 1 summarizes the subordinate enhancement aims which ranged from positively influencing students' assumptions or negative stereotypes (Conner, 2010) to increasing retention and learning success (Naidoo, 2012), enhancing critical thinking (Carringtonm & Selva, 2010), self-efficacy (Trauth-Nare, 2015), civic efficacy (Iverson & James, 2010; Naidoo, 2012), encourage introspection (Carringtonm & Selva, 2010; Whiteland, 2013) or addressing and maintaining a sustainable partnership with the community (Sletto, 2010; Whiteland, 2013).

Research question 2: What types of S-L are most common in pre-service teachers' education?

Most of the S-L programs included in our review were implemented in USA. The selected research predominantly utilized S-L programs designed as components of various core curricula university courses, such as inclusive education and diversity courses (Conner, 2010; Carringtonm & Selva, 2010), introductory or capstone pedagogical courses (Chang,

Anagnostopoulos & Omae, 2011; Coffey, 2010; Trauth-Nare, 2015; Sletto, 2010; Power, 2013), methods of teaching courses (Cone, 2012; Iverson & James, 2010; Kim, 2012), pedagogical research courses (Wallace, 2013), art education courses (Whiteland, 2013), thus corroborating the flexibility of S-L as a powerful curricular tool. Out of the total 15 approaches, 2 scholars designed the S-L experience as a summer program: a summer arts-based S-L with Australian Aboriginal people as beneficiaries (Power & Bennet, 2015) and a summer enrichment mentoring S-L program for developing pedagogical skills (Green, 2011). One study integrated the S-L program in the teaching professional experience next to practicum (Naidoo, 2012), whereas no S-L as an independent course directions were found.

Research question 3: What is the hosting environment for the S-L experience?

All of the studies included in the current qualitative synthesis reported S-L as a field experience combined with previous training by taking part in course activities. The hosting environments varied from common schools (Coffey, 2010; Green, 2011; Trauth-Nare, 2015; Wallace, 2013; Sletto, 2010) to schools placed in distressed neighbourhoods (Conner, 2010), community organizations that serve youth from marginalized groups (Chang, Anagnostopoulos & Omae, 2011), Aboriginal communities (Power & Bennet, 2015), different organizations (Carringtonm & Selva, 2010), community centres (Cone, 2012; Whiteland, 2013), learning centres (Wallace, 2013), homeless shelters (Kim, 2012) and international settings (Naidoo, 2012).

Research question 4: What type of activities do the S-L programs imply?

The S-L activities were categorized into structured, semi-structured and unstructured, based on the existence of training, well-established operational objectives that linked the service with the academic content, following a pre-established curricular plan and/or an academic theme, implementation and evaluation. The majority of S-L activities (9) were structured, based on activity or lesson plans, with trained participants, assisted by guides and operational objectives. 5 studies chose to give more freedom to the pre-service teachers and semi-structured the program while one study approached the S-L in a non-structured, fluid, informal manner (Sletto, 2010). Regarding the S-L activity categories, there is a tendency among recent research to involve pre-service teachers in teaching or literacy activities (7) or partnering and tutoring activities (4) whereas some chose to extend the service through art – music teaching (Power, 2013) and collage-making (Whiteland, 2013) or designing and conducting pedagogical activities (2), mostly found in structured instances.

Research question 5: What does the reflection component of S-L programs consist of?

Reflection appears to be an imperative component of the S-L due to the fact that it links the S-L experience to the filter of academic content (Heffernan, 2001). Almost half (7) of the studies analysed chose a reflection journal as their main reflection component, while others (4) decided to involve technology as being more suited for the "digital-native" (Prensky, 2001) student: blogging (Green, 2011), weekly logs (Iverson & James, 2010; Sletto, 2010) or digital stories (Power & Bennet, 2015). Less frequent were weekly reflection essays, focus groups, reflection on the course material, question logs or interviews, with one study mentioning each.

Research question 6: What is the average length of the S-L programs?

The trend regarding the length of the S-L programs for the pre-service teachers is one semester with 6 mentions in the case when the S-L component was embedded in the course curricula, versus 5 mentions for S-L programs that engaged students for 3 to 5 weeks. There

was one study where S-L was offered during two summer sessions (Sletto, 2010) and three studies that described S-L programs that lasted between 10 to 15 weeks.

Research question 7: How are the S-L programs evaluated?

The majority of researchers preferred to combine different evaluation methods to better assess the course's impact on different variables. The most common methods were a final course writing task (4) and exit interviews (4) followed by no official course evaluations (3), final written reflections (2) and posters/photography/short narratives (1) or a content course written examination (1).

3.3.5. Conclusions

The current paper used a systematic review protocol to analyse the latest research on the S-L programs (i.e. 15 studies from 2010-2016 met the inclusion criteria). The results reflect the aims of the S-L programs, the most common types of S-L in pre-service teachers' education, types of hosting environment for the S-L service component, various types and categories of S-L activities, most frequent reflection methods and program lengths, and a wide array of final course evaluation alternatives. The investigated literature reveals an on-going preference for embedding the S-L program in university course curricula (i.e. 12 out of 15 scholars designed this programs in this manner).

Another highlight of this review is the predilection to use structured S-L approaches, as 9 out of 15 studies mentioned pre-service training, structured activities guided by operational objectives that link the academic content to the community service, whereas only 5 studies gave more freedom to the service participants and semi-structured their activities. Since the studies included in the review only addressed pre-service teachers, the majority of S-L activities (7) focused on teaching and literacy together with previously designing a lesson plan on a certain curricular theme, followed by tutoring (4) and assisting children with various school tasks or homework. Moreover, the one semester approach seems to be the preferred length for delivering S-L programs, especially in the cases when the program is embedded in course curricula.

One of the most important components of the S-L programs, the reflection, was mainly designed in the form of reflection journals with 7 mentions and 4 online reflection logs or blog posts after each encounter with the S-L beneficiaries. Regarding the evaluation of such programs, the results indicate that a final course official writing task is still the preferred method, coupled with exit interviews – both with 4 mentions. On the contrary, 3 studies chose not to officially evaluate the students and only one study made use of alternative, modern means of evaluation such as posters, short narratives and photography. Wistfully, only one program out of the total 15, included a final celebration in the form of a class poster fair (Iverson & James, 2010), following the guidelines (Jenkins & Sheehey, 2011) and offering the students their much deserved demonstration moment as a form of validation. Little or no information is offered about the course credits system. Our findings may serve as a premise for designing better, more efficient S-L programs when combined with existing guidelines and checklists, taking the tailor-made approach into consideration, thus suitable for the needs of every pre-service teacher.

Study 4 – Romanian Translation and Linguistic Validation of the Civic Attitudes and Skills Questionnaire: Implications for Pre-Service Teachers' Evaluation

3.4.1. Introduction

Attitudes are considered as being potent behavioral driving forces that have been widely studied in Psychology for more than five decades. Gordon Allport (1935 apud Falk & Lieberman, 2013) defined social attitudes as "*mental and neural states of readiness, organized through experience, exerting a directive dynamic upon an individual's response to all objects and situations with which it is related*". In line with this definition,, social attitudes are considered primary orientations that include selective relationships with social objects (events, institutions, individuals) and that have the potential to determine individual behavioral patterns (Gavreliuc, 2007).

In congruence with social attitudes, civic attitudes refer to an individual's feelings and responsibility towards the community and the assimilation of the idea that every community member has a central role in keeping the well-being of the community (Lenzi, Vieno, Santinello, Nation & Voight, 2014). Civic attitudes are a major component of civic engagement (Lenzi et al., 2014) and can be addressed as evolutionary essential components of a functional society, especially when embodied by pre-service teachers, as they become significant behavioral role-models for the future generations. Some authors believe that the Service –Learning pedagogy (S-L) offers the greatest potential for fostering civic responsibility as it provides opportunities for students to engage directly in their communities and meet community needs while enhancing their competencies related to the course work (Robinson, 2006).

Civic attitudes are often mentioned and investigated in literature as sensitive to S-L participation: Eyler, Giles, Stenson & Gray (2001) compared over 40 studies that confirm the hypothesis where S-L generates positive, statistically significant, increases in civic responsibility, civic action, citizenship and civic engagement of students towards community service. Measures used to investigate S-L outcomes are varied, such as: questionnaires focusing on students beliefs and attitudes (Moely et al., 2002), focus groups (Schmiede, 1995 apud Moely et al., 2002), interviews and journal writings (Eyler & Giles, 1999 apud Moely et al., 2002; Primavera, 1999; Yates & Youniss, 1996, apud Moely et al., 2002). More recently, researchers appear to prefer to combine different methods to better assess the S-L course's impact on different variables. The most common evaluation methods used are final course writing tasks and exit interviews, followed by no official course evaluations, final written reflections and posters/photography/short narratives or content course written examinations (Copaci & Rusu, 2016).

3.4.1.1. The Civic Attitudes and Skills Questionnaire

There is a unanimous agreement in literature regarding the imperative characteristic of S-L outcomes assessment, especially when thriving to deliver a high quality, authentic, inspiring and mutually beneficial experience to both the student and the community. The S-L assessment process is a cross-sectional process conducted at all stages of the project development and aims to analyse the successes and difficulties experienced by the program and participants, taking into consideration whether actions are being carried out according to expectations and whether objectives are being achieved on schedule (Centro Latino-

American de Aprendizaje y Servicio Solidario, http://www.clayss.org.ar). There are numerous conceptualizations of S-L program assessment addressing the variables involved in S-L (students, faculty, community, institution), securing enough pertinent data to measure effectiveness and guide improvement (Hanover Research, 2011). Among these variables, civic attitudes are often addressed by S-L programs, being considered valuable components of the process of developing responsible citizens.

The Civic Attitudes and Skills Questionnaire – CASQ (Moely et al., 2002) is an instrument that evaluates student outcomes, more precisely focusing on college students' description of attitudes and skills that may be positively affected by a service-learning experience. The instrument is comprised of 6 subscales (Civic Action – C.A., Interpersonal and Problem-Solving Skills – I.P.S.S., Political Awareness – P.A., Leadership Skills – L.S., Social Justice Attitudes – S.J.A., Diversity Attitudes – D.A.) that reflect the following S-L goals identified by Stukas, Clary & Snyder (1999): self-enhancement, understanding the world and self and value-expression (Moely et al., 2002; Stukas et al., 1999).

For the purpose of this study, 3 subscales of the inventory were used, based on the previous findings in the literature indicating the beneficial impact of S-L programs on these dimensions: (1) the Civic Action (CA) subscale, (2) The Interpersonal and Problem Solving Skills (IPSS) subscale and (3) the Diversity Attitudes (DA) subscale.

The Civic action subscale measures on a 5-point Likert scale the respondents' intent of getting involved in community-oriented activities. The subscale has been designed as consistent with Stukas et al. (1999) value-expression S-L goal (that aims to increase the internalization of prosocial values and socially responsible attitudes in S-L participants) and self-enhancement S-L goal, which is based on the premise that students who feel they have the necessary skills are likely to plan to take an active role in community service (Moely et al., 2002). The internal consistency of the CA subscale is .88 (Moely et al., 2002).

3.4.2. Hypothesis

This study tests the hypothesis that the linguistic version of the CASQ instrument in Romanian (Moely et al., 2002) is equivalent to the English version of the same instrument.

3.4.3. Design, participants, procedure, instruments

The research design is correlational, with the correlated variables being the two linguistic versions of the CASQ subscales (Moely et al., 2002).

Participants

24 bilingual speakers voluntarily and anonymously took part in the research. All the participants are Romanian students (master's degree students or PhD students), that hold an English language certificate with a score of at least upper intermediate (B1), that are currently in or have completed the teacher training module, or PhD students that are already engaged in teaching activities. The participants were informed that their participation is voluntary and anonymous before being asked to fill in both linguistic versions of the instruments, at a 2-week interval. The scales were offered via EUSurvey (https://ec.europa.eu/eusurvey/), an online management system for designing and publishing questionnaires, created by the European Commission. The sample size was comprised of 19 females and 6 men, aged between 23 to 29. As shown in Table 1, the average age of students was 28 years (SD = 5.1), all of Romanian ethnicity, with educational levels ranging from Bachelor Degree graduates to PhD students, majoring in various fields (Education, Psychology, Social Sciences, Humanities and Arts, Biological Sciences, Law, Mathematics, Informatics & Economics). 16.6% percent of the sample majored in two domains or more.

Additional human resources were required for the translation and linguistic validation procedure of the three subscales (CA, DA, IPSS) of the Civic Attitudes and Skills Questionnaire (CASQ; Moely et al., 2002). Thus, two local professional, authorized translators, native in Romanian and bilingual in both English and Romanian languages, were recruited.

Following the World Health Organization guidelines for translating and adapting instruments (www.who.int/substance_abuse/research_tools/translation/en/), the translators blindly forward- and back-translated the instruments. The translators were instructed to focus on clarity and simplicity, to avoid literal translation and aim for the conceptual equivalent of the items.

Procedure

To pursue the purpose of the current research, the back-translation and decentring procedure (Brislin, 1986) were utilized. According to Brislin (1986), the back-translation method implies that one bilingual person translates the instrument from the source to the target language, and another person blindly translates the instrument back to the source. But, sometimes, this method might not be sufficient to attain the research goals; therefore, to ensure it is valid, it is often paired with decentring (Werner & Campbell, 1970 apud Brislin, 1976). Decentring aims to keep only the etic concepts (i.e. concepts that exist in both cultures and languages) by comparing the back-translated version with the original version of the scale: hence, the concepts that „survive" the decentring procedure are assumed to be etic, and those that do not appear in the final back-translated version are the emic ones (i.e. concepts that only exist in one culture and language) (Brislin, 1986).

Phase 1 of the research, i.e. the forward translation, involved an independent translator who rendered the instrument in the source language (English) into the target language (Romanian). Phase 1 was followed by an expert panel examination (phase 2) where the translation was reviewed, discussed and adjusted by the researchers before moving forward to phase 3, the back-translation. The purpose of the back-translation step is the production of a backward translation of the instrument, from the target language back into the source language, without any access to the original version of the document (Varni, Seid & Rode, 1999). The back-translation of the selected subscales was conducted by a second, local, professional translator with no access to the original English version of the instrument.

In phase 4, the comparative review including the decentring procedure, the researchers group compared the backward version of the instrument with the original version, in order to produce a testing version. A few discrepancies between the two versions of the instrument appeared in this stage of the process, which are worth mentioning. Discrepancies were found on all items of the CA subscale items regarding the verb: in the original version, the authors chose „I plan to [...]" to express intention of community involvement actions, which was translated, then back-translated into „I intend to [...]". The decision was to keep the Romanian equivalent for „I plan to [...]" as a verb, as it is closer to the source concept and, in contradistinction to the Romanian equivalent for „I intend to [...]", which sums up a wish or a thought, planning also implies projection and mental preparation of the action. Secondly, item 8 of the CA subscale „I plan to become involved in programs to help clean up the environment" was back-translated as a conditional „I intend to become involved in programs in order to help clean the environment" due to the fact that there is no equivalent colloquial structure in the target language for „help clean up the environment". The resolution was to replace the structure with the Romanian equivalent of „[I plan to get involved in] environment ecological programs" which is often used in educational settings, so students at all ages are habituated with its significance. And finally, item 12 of the IPSS subscale, i.e. „I tend to solve problems by talking them out", was back-translated as „I have the tendency to

solve problems through communication". The expression „through communication", even though it has the same denotation with its source counterpart, was considered to be too impersonal and only rarely used in simple, colloquial language. As a result, it was replaced by the Romanian equivalent of „discussing about them". This stage materialized in a testing version of the CASQ subscales.

In phase 5, the participants were informed about the study and confidentiality policy and asked to complete the CASQ subscales in the source language (English) online, via the EuSurvey software. Two weeks later, they were similarly asked to fill in the subscales in Romanian language, the target-language. Data analysis followed this step, together with a final review of the instrument for producing a (phase 6) final version of the CASQ translated subscales.

Instruments
Instrument 1 – Civic Attitudes and Skills Questionnaire
For the linguistic adaptation of CASQ (Moely et al., 2002), the two versions of the CASQ subscales (C.A., D.A., I.P.S.S.) were used: first, the initial version in English, followed by translations into Romanian.

3.4.5. Results and discussion

Firstly, the internal consistency (Cronbach α) and descriptive statistics were assessed for both linguistic versions of the CASQ subscales, Romanian and English versions (Table 3.4.5.1.). The values of Cronbach alpha coefficients computed for the English 8 CA sub-scale items, 12 IPSS sub-scale items and 5 DA sub-scale items were .858, .886 and .681, respectively, with an overall scale coefficient of .915. Similarly, for the equivalent Romanian items, Cronbach alpha coefficients were .889 for the CA sub-scale, .892 for the IPSS sub-scale and .735 for the DA sub-scale, with an overall scale coefficient of .894.

Table 3.4.5.1. Means, standard deviations, medians and Cronbach's Alpha (based on standardized items) for the selected CASQ subscales

	Pre-Test (English Version) (N=24)				Post-Test (Romanian Version) (N=24)			
	M	*SD*	*Mdn*	*α*	*M*	*SD*	*Mdn*	*α*
CASQ subscales								
1. Civic Action	3.66	.67	3.87	.858	3.65	.74	3.75	.889
2. Interpersonal and Problem-Solving Skills	4.18	.5	4	.886	4.29	.57	4.45	.892
3. Diversity Attitudes	3.45	.51	3.4	.681	3.6	.72	3.7	.735

Secondly, the equivalence of the two linguistic versions of the CASQ was tested both by computing the Wilcoxon Signed-Rank Test and by computing Spearman (rho) correlations. Table 3.4.5.2. presents the Wilcoxon Signed Ranks Test for the selected CASQ Scales which shows that there was no statistical significant difference between the two linguistic versions of the CASQ (Z = -1.386, p = .166), nor for the subscales individually: CA (Z = -122, p = .903), IPSS (Z = -1.164, p = .245), DA (Z = -1.561, p = .118), indicating that the two linguistic versions are equivalent.

Table 3.4.5.2. Wilcoxon Signed Ranks Test for the selected CASQ subscales

	Z	p (2-tailed)
CASQ Overall Scale	-1.386	.166
CASQ subscales		
1. Civic Action	-.122	.903
2. Interpersonal and Problem-Solving Skills	-1.164	.245

3. Diversity Attitudes	-1.561 .118

Additionally, Wilcoxon Signed Ranks tests were computed for each of the item pairs included in the CASQ sub-scales. No significant statistical differences were found between the two linguistic versions of the items, supporting the hypotheses that the two linguistic versions are equivalent.

Similarly, Spearman correlations (rho) for the subscales and item pairs were computed to test the association between the two versions of CASQ. All of the six variables (i.e. both linguistic versions of the CASQ sub-scales) significantly and positively correlated: the CA subscales with a coefficient of $r(22) = .779$, $p < .001$, the IPSS sub-scales with a coefficient of $r(22) = .719$, $p < .001$ and the DA sub-scales with a coefficient of $r(22) = .809$, $p < .001$.

Table 3.4.5.3. Spearman Correlations for the two versions of the subscales (Romanian and English)

	CASQ sub-scales (Romanian versions) (N=24)		
	1	2	3
CASQ Sub-scales (English versions) (N=24)			
1. Civic Action	.779**		
2. Interpersonal and Problem-Solving Skills	-	.719**	
3. Diversity Attitudes	-	-	.809**

Furthermore, Spearman correlations were also computed for each item pair (Table 3.4.5.4.). All the correlations were statistically significant (except for item 6), with a coefficient of $r(22) = .319$, $p < .005$.

Table 3.4.5.4. Spearman correlations for the CASQ Civic Action Item pairs

	CASQ Civic Action Item pairs (Romanian version) (N=24) Corresponding translated item
CASQ Civic Action items (English version) (N=24)	
1. I plan to do some volunteer work.	.804**
2. I plan to become involved in my community.	.635**
3. I plan to participate in a community action program.	.636**
4. I plan to become an active member of my community.	.534**
5. In the future, I plan to participate in a community service organization.	.497*
6. *I plan to help others who are in difficulty.*	.319
7. I am committed to making a positive difference.	.527**
8. I plan to become involved in programs to help clean up the environment.	.525**

Notes: *p < .005, **p < .001

Table 3.4.5.5. shows the Spearman correlations for the IPSS subscale item pairs. All correlations were significant (except for item 7), with a coefficient of $r(22) = .390$, $p < .005$.

Table 3.4.5.5. Spearman Correlations for the CASQ Interpersonal and Problem-Solving Skills Item Pairs

	CASQ Interpersonal and Problem-Solving Skills Item Pairs (Romanian Version) (N=24) Corresponding Translated Item
CASQ Interpersonal and Problem-Solving Skills Items (English Version) (N=24)	
1. I can listen to other people's opinions.	.669**

2. I can work cooperatively with a group of people.	.685**
3. I can think logically in solving problems.	.543**
4. I can communicate well with others.	.445*
5. I can successfully resolve conflicts with others.	.803**
6. I can easily get along with people.	.561**
7. *I try to find effective ways of solving problems.*	.390
8. When trying to understand the position of others, I try to place myself in their position.	.495*
9. I find it easy to make friends.	.771**
10. I can think analytically in solving problems.	.621**
11. I try to place myself in the place of others in trying to assess their current situation.	.447*
12. I tend to solve problems by talking them out.	.427*

Notes: *p < .005, **p < .001

Table 3.4.5.6. presents the Spearman correlations for the DA subscale item pairs. All correlations were significant (except for item 1), with a coefficient of r(22) = .388, p < .005.

Table 3.4.5.6. Spearman correlations for the CASQ Diversity Attitudes Item pairs.

	CASQ Diversity Attitudes Item pairs (Romanian version) (N=24) Corresponding translated item
CASQ Diversity Attitudes items (English version) (N=24)	
1. *It is hard for a group to function effectively when the people involved come from very diverse backgrounds.*	.388
2. I prefer the company of people who are very similar to me in background and expressions.	.809**
3. I find it difficult to relate to people from a different race or culture.	. 772**
4. I enjoy meeting people who come from backgrounds very different from my own.	.549**
5. Cultural diversity within a group makes the group more interesting and effective.	.568**

Notes: *p < .005, **p <.001

The results of this study have shown that the tested CASQ sub-scales are internally consistent: for the Romanian version, with an overall scale coefficient of .894 and Cronbach alpha coefficients of .889 for the CA sub-scale, .892 for the IPSS sub-scale and .735 for the DA sub-scale, we can conclude that the target language scale is highly reliable. In addition, the results of testing the equivalence of the scale support the initial hypotheses (i.e. there will be equivalence between the Romanian and the English version of the CASQ): the Wilcoxon Signed Rank test for the overall scales CASQ (Z = -1.386, p = .166) for the individual sub-scales CA (Z = -122, p = .903), IPSS (Z = -1.164, p = .245), DA (Z = -1.561, p = .118) and also for each of the item pairs included in the sub-scales showed that there were no statistically significant differences between the source language instrument (English) and its translation (Romanian), suggesting that the two linguistic versions are equivalent.

Furthermore, the associations between the two scale versions were also analysed by computing Spearman correlations for both the overall sub-scales and individual item pairs. The overall sub-scales strongly correlated, the CA subscales with a coefficient of r(22) = .779, p < .001, the IPSS sub-scales with a coefficient of r(22) = .719, p < .001 and the DA sub-scales with a coefficient of r(22) = .809, p < .001, showing significant positive association between the two versions. Regarding the item pairs, all correlation coefficients were significant except for item 6 of the CA sub-scale ("I plan to help others who are in difficulty") with a coefficient of r(22) = .319, p < .005; item 7 of the IPSS sub-scale ("I try to find effective ways of solving problems") with a coefficient of r(22) = .390, p < .005 and

item 1 of the DA sub-scale ("It is hard for a group to function effectively when the people involved come from very diverse backgrounds") with a coefficient of r(22) = .388, p < .005. One possible explanation for the non-significant associations (although positive one and with values higher than 0.3) between these item pairs, taking into consideration the overall scales significant associations, could be the small sample size (N = 24), as well as the translation discrepancies already discussed between the verbs "to try" and "to intend" (in the specific case of item 6, subscale CA).

3.4.6. Conclusions and limits

The Civic Attitudes and Skills Questionnaire (CASQ, Moely et al., 2002) is a relevant tool for assessing S-L outcomes at the student-level including the internalization of prosocial values, socially responsible attitudes and self-reported skill enhancement in S-L participants, while emphasizing the student-centred pedagogical perspective. This study aimed to translate and linguistically validate three selected CASQ subscales: CA, IPSS & AD, to achieve conceptual equivalence of the instrument in the target language and to expand its diagnostic value to examine Romanian students' civic responsibility, and their intention to pursue positive civic behaviors, the preceding step to actual civic engagement, as outcomes in partaking in S-L programs.

The results of this study show favourable and promising results relevant to the translation and adaptation of the CASQ scale for Romanian language, which can be used in the future by itself and/or together with other instruments in the process of assessing the psycho-social effects of Service-Learning activities and programs. It can be concluded that two versions of the CASQ are linguistically equivalent, i.e. our results showed no statistical significance between the two linguistic versions and individual items. Significant positive associations were found between the overall sub-scales, except non-significant associations between individual 3 items (one item from the CA subscale, one from the PSSI subscale and one from the DA subscale). Even though this study has reached its objectives, there are some limitations that include the small sample size and the use of self-report scales that could be subject to social desirability biases.

In conclusion, congruent with Eyler's findings (Eyler, 1999 apud Moely et al., 2002) who showed that engaging in a Service-Learning experience facilitates positive psychosocial effects related to increases in commitment to service and public works, enhanced interpersonal skills and reduced stereotyping and greater understanding of other cultures, the instrument also shows great predictive and educational potential for Romanian students' future itineraries regarding civic responsibility and civic actions. Also, having access to both versions of the CASQ allow us to perform trans-cultural comparisons regarding the impact of S-L activities on the civic attitudes and civic responsibility on resident (Romanian) students and foreign students studying in Romanian Higher Education Institutions.

Study 5 – A Service-Learning E-Tutoring Program for Romainan Pre-Service Teachers: Towards a Validated Higher Education Inclusion Model

3.5.1. Introduction

Service-Learning (S-L) is a pedagogical concept that can be practiced within formal, non-formal and informal educational settings (CLAYSS, 2016), a „balanced approach to experiential education" that can be „*distinguished by its intention to equally benefit the provider and the recipient of the service, as well as to ensure equal focus on both the service*

provided to the community and the learning that is occurring" (Furco, 2003). Due to the fact that S-L is a flexible educational approach that can bring mutual benefits to both the providers and to the recipients, as well as with multiple beneficial effects for the learners and for the community, there is an increased interest for such programs in the academic practice, thus the increased number of investigations into S-L in recent years (Eyler, 2000).

This study describes the restructuring and extension proposal for a previously developed Service-Learning (S-L) e-tutoring program for pre-service teachers, i.e. PedTut (Rusu, Copaci & Soos, 2015), following the guidelines of a validated model for including S-L in higher education (CLAYSS):

Project Presentation: Restructured Wireframe for PedTut, the Service-Learning Project

Project title: PedTut (acronym for Pedagogical Tutoring)

School and institution: Faculty of Psychology and Educational Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania (www.ubbcluj.ro)

Project coordinators: one higher education teacher and a PhD candidate in Psychology domain (the first author of this study).

Other participants: (1) Pedagogy Students from the Faculty of Psychology and Educational Sciences, Babes-Bolyai University, Cluj-Napoca, Romania**; (2)** A member of the institutional board of the University.

1.5.1.1. Project Categorization

According to the Centro Latinoamericano de Aprendizaje y Servicio Solidario, CLAYSS (2016), S-L projects can be categorized based on a series of articulation models, depending on how the S-L is articulated with the educational curricula. Therefore, a S-L project can be defined as a: (1) part of class activities, (2) as a part of course or school activities, (3) as a part of a multidisciplinary program involving classes and/or courses, (4) as a part of professional practice, (5) as a separate S-L course or (6) as a part of research project (graduate or post-graduate). The current project can be categorized as a Professional curricular articulation (postgraduate) where the PhD dissertation supports S-L research and gives the opportunity for commencing new projects. The project also has a research component (i.e. investigating the S-L associated variables and the service outcomes), addressing the social issue of increasing the workforce enrolment for pre-service teachers and enhancing their pedagogical experience and expertise in the field. The project is based on the scenario in which academic knowledge was requested by the community of pre-service teachers' while taking qualitative job interviews and while collecting feedbacks during several exams. PedTut is also a social promotion project that targets mid and long-term goals to sustain pre-service teachers in their itineraries to become expert teachers and contribute further on by offering literacy and knowledge to future generations of children.

3.5.1.2. Extended goals and itinerary information

The purpose of the initial tutorial program (PedTut I) was to develop and implement an S-L-based tool to advise students enrolled in the second year of the pedagogy training module with feedback on their online reflections and pedagogical teaching practice. Feedback was provided for frequently encountered methodological issues (the theory and methodology of training, assessment theory and methodology) or any obstacle encountered during the three-week teaching practice. In the initial phase of testing this program, the tutor was embodied by the researcher (which is a graduate of the pedagogical module). In the PedTut extension phase (PedTut 2), the role will be assigned to senior students in the pedagogy specialization, master's degree graduates, as an experience of community-oriented learning. Student tutors will provide short-term online support (as part of PedTut I) alongside 30-

minute short theoretical workshops in video format online, either on the PedTut platform or in a similar hosting environment online tutorials. The duration of the project is 3 weeks, at the beginning of the second semester (ie the first semester of pedagogical practice) of the academic year.

3.5.1.3. Problem Statement

It is well known that, following the described itinerary of the S-L projects, at the root of every S-L initiative is an identified community problem that can be addresses through the framework. The community need that needs to be addressed in the context of the Babes-Bolyai University was identified in the diagnosis stage of the project. Student-for-student learning enhancement was chosen considering the priority-setting criteria. Therefore, PedTut focuses on facilitating access to education, tutoring and learning improvement for pre-service teachers in the context of their initial pedagogical training to enhance their pedagogical training and ease their transition into the world of practice. Thus, the initial developed project has now been reformed and divided into two section: a first section (PedTut I) that focuses on enhancing the pre-service teachers pedagogical training with online e-tutoring sessions and the second section (PedTut II) that extends the latter at a national level by implementing a series of online pedagogical e-tutorials, accessible to pre-service students all around the country.

3.5.2. Hypotheses

1. After completing the e-tutorial (e-SL) program, there shall be a significant increase in students' levels of civic attitudes (civic actions, interpersonal problem solving skills and attitudes of diversity) from the experimental group compared to the students from the control group.
2. After completing the e-SL program there shall be a significant increase in students from the experimental group of subjective happiness levels compared to the students from the control group.
3. After completing the e-SL program there shall be a significant increase in the experimental group's self-efficacy compared to the control group.
4. At national level, after completing the video e-SL program, there shall be a significant increase in their final national pedagogical exam and work field insertion for teachers.

3.5.3. Method

The following tables (Table 3.5.3.1., Table 3.5.3.2., Table 3.5.3.3.) explicitly describe the steps undertaken for a complete execution of the PedTut programs, according to CLAYSS (2016) validated model for the inclusion of S-L in higher education. The tables present the stages of both PedTut I and PedTut II following the literature characteristics (Billing, 2000; Furco, 2003), itinerary and cross-sectional processes (i.e. the reflection process, the record and communication process and the assessment process) for S-L projects (CLAYSS, 2016). Contemporary literature divides S-L projects on stages, such as: preparation/diagnosis and planning (identifying the community need, establishing a goal and objectives for the S-L project, necessary skills, resources and activities), implementation (and maintaining the connection between the service and academic content), assessment (evaluating the course, and/or student academic, social or civic learning) and demonstration/celebration (discussing and exhibiting their work) (Jenkins & Sheehey, 2011; CLAYSS, 2016). Hence, each stage of PedTut I & PedTut II is exemplified accounting for the curricular contents linked to the service in the corresponding phase described above, together with an exemplification of the

activities proposed for students' field work related to service and analogous learning components.

3.5.3.1. Diagnosis and Planning

This first stage of each S-L project aims at identifying real community needs that can be answered by students at educational institutions and at the same time, prospecting and selecting the best possible opportunities to develop meaningful learning (CLAYSS, 2016). Table 3.5.3.1 presents the diagnosis and working proposal for PedTut I and II.

3.5.3.2. Execution

According to literature, this stage includes project implementation, feedback and monitoring mechanisms (CLAYSS, 2016) that are also presented for PedTut I & II in Table 3.5.3.2.

3.5.3.3. Reflection

Reflection is a mandatory cross-sectional S-L process that allows students to become aware of the learning they are undergoing, state doubts and experiences, consolidate their leadership and make suggestions to educational institutions (CLAYSS, 2016). Reflection before, during and after the service is important due to the fact that it contributes to people changing their meaning schemes (concepts, beliefs and judgements) by refining or elaborating them together with the new information (Eyler, 2002). Table 3.5.3.3. offers a detailed presentation of this cross-sectional process for PedTut I & II.

3.5.3.4. Closure and Celebration

This stage of S-L project is comprised of the closure assessment where the different stages, objectives that have been set at the beginning of the project, educational results of the experience, learning and the quality of the service are evaluated (CLAYSS, 2016). In the case of PedTut I & II, at the end of the projects, the above components will be discussed, and diplomas will be issued for the tutor-students offered during a Closure Ceremony. The celebration and official launch of the program will take place at the university, where current achievements, present the posters, future directions of research will be discussed and project data will be disseminated. The curricular components are identical to those in the previous stages. The students' field work (service) will be team working for the preparation of a Closure Ceremony for poster presentations and diploma offerings, both speech-wise and setting-wise.

3.5.3.5. Systematization and Communication

The final systematization step will consist in reviewing and analysing the data collected and recorded during and after the program took place (both qualitative and quantitative), address the mistakes that might have been done during the program with future directions of improvement and disseminate the data by publishing a comprehensive scientific article, and participate in conferences. The data will also be included in a PhD thesis. After the systematization, the article will be published online for dissemination of data.

3.5.3.6. Assessment

The assessment of the extended version of the PedTut program will be conducted at the student and community level: student variables will be assessed using self-report questionnaires (such as the recently translated and linguistically validated in Romanian CASQ, Moely et al., 2002) and qualitative analysis of the journals. The following quantitative statistical analyses will be conducted in order to assess the programs' impact and test the hypotheses mentioned above: Person's Correlations, Independent Sample T-Tests, Reliability Analysis of the scales (Cronbach's Alpha Coefficient), Descriptive Statistics and an Effect Size Calculator (Cohen's d). At the community level, the tutees that enrol in the video e-tutorial will be presented with a short 5-question quiz after each module, and a final feedback on the program. Also, the design of the project will be assessed by the group of coordinators and the "module" objectives after each video lesson have been filmed.

3.5.4. Findings

After the completion of both PedTut S-L sections, we expect that students' attitudes towards diversity will increase, as stated and confirmed by previous findings (Rusu, Copaci & Soos, 2015). Also, the hypotheses that their civic action, interpersonal and problem-solving skills, subjective happiness levels, self-efficacy and performance will increase, easing their transition into the world of teaching practice, need to be further tested after the implementation of the current restructuring and extension proposal.

Table 3.5.3.1. Diagnosis and Planning Stage for PedTut I & II, CLAYSS Template (2016)

ITINERARY	CURRICULAR CONTENTS / CLASSES	ACTIVITIES PROPOSED FOR STUDENTS' FIELD WORK	
		LEARNING	SERVICE
Motivation: the need for a supplementary enhancement tool regarding the pedagogical training of pre-service teachers. The academic knowledge was requested by the community of pre-service teachers' while taking qualitative job interviews and while collecting feedbacks during exams. The structure of the project was discussed together with the project heads and student that previously participated in the testing phase. This type of S-L Project has the potential to be organized in any faculty, based on the needs of the students and to be up scaled online at national level, for all the pre-service teachers interested in the topic.	Classes connected to the SL activity: Class Management (1), Curricula of Primary and Preschool Teaching Education (2), Introduction to Pedagogy (3), Curricula of Teachers' Training Module (4), Social Work (5), Pedagogy of Play (6) (1) Elements of classroom management (1, 2). (2) Teaching design: operationalization of goals (2, 3). (3) Civic attitudes (4, 5). (4) Modern and traditional teaching methods (1, 2). . (5) Using play in teaching (concepts from 2, 6). (6) Performance evaluation and curricula standards (1, 2) (7) From monodisciplinarity to transdisciplinarity (2). (8) Algorithms drafting an exam response: coherence, clarity, accuracy, consistency (2, 3).	Learning about the strategies of planning an action to respond to needs of younger colleagues in order to facilitate their participation to education and ease their transition into the work field. In-depth learning of concept presented in the curricular contents or classes column. Learning about S-L, participative learning of pedagogy concepts, civic engagement, enhancement of attitudes towards diversity.	Organizing e-tutoring sessions by older pedagogy students, for novice students, based on the needs signaled by previous pre-service students that took part in the pilot study (PedTut I). Organizing short video e-tutorial modules on different concept by older pedagogy students, for novice students, based on the needs signaled by previous pre-service students that took part in the pilot study (PedTut I).

Table 3.5.3.2. Execution Stage for PedTut I & II, CLAYSS Template (2016)

ITINERARY	CURRICULAR CONTENTS / CLASSES	ACTIVITIES PROPOSED FOR STUDENTS' FIELD WORK	
		LEARNING	SERVICE
The S-L event I (PedTut I) had duration of 3 weeks. The initial platform was constructed as an online reflection tool. Students had to answer a short reflection diary, once a week, after the class they taught. The diary items were related to situations encountered during practice: positive experiences, difficulties, conflicts, problem-solving strategies they used, alternatives they used, worry thoughts and a text area field where they could ask for advice on methodological issues. Diary was individually completed 3 times, during the first 3 weeks of practice. In maximum 24 hours from the completion, students received email feedback from the tutor. PedTut II will extend PedTut I based on the needs identified in the qualitative analysis of the comments of PedTut I participants (diagnosis and planning), on different methodological teaching aspects and emotional management. Modules will focus on both the instructive-educative process (held by pedagogy tutors) and psycho-social aspects associated to the teaching process (held by psychology students). The execution of e-tutorial will be as follows: videos will be composed of modules that address different educational topics (30 minutes per module), that the tutor-students will have to prepare together with the coordinators' team. The program will be hosted either by PedTut or by a free access platform. The speakers in the e-tutorial will be older students and we have also considered a few educational experts (school principals or inspectors).	Classes connected to the SL activity are identic to the components of the previous phase.	Learning about the strategies of planning an action to respond to the educational and professional needs of younger colleagues. In-depth learning of concept presented in the curricular contents or classes column. Learning about S-L, participative learning, civic engagement, enhancement of attitudes towards diversity. Participative and vicariant learning from colleagues' experience in teaching.	Participation in the activities of the S-L event: answering the students' pedagogical questions on PedTut, preparing academic material for suggestions, preparing for the each of the e-tutorial modules, preparing the physical setting for the video presentation, organizing meetings with the local media, motivating the academic staff to participate in the campaign, documenting the campaign with pictures and video.

Table 3.5.3.3. Reflection Stage for PedTut I & II, CLAYSS Template (2016)

ITINERARY	CURRICULAR CONTENTS / CLASSES	ACTIVITIES PROPOSED FOR STUDENTS' FIELD WORK	
		LEARNING	SERVICE
Reflections on the utility and efficiency of this particular SL event PedTut I and on each week's teaching practice, were made while completing the online reflection diary. In PedTut II, the reflection component will continue to take place online, weekly, in all stages of the project, in the form of written reflection journal. The written reflection will be doubled by a drawing poster. The systematization and communication itinerary process will take place at all the stages.	Classes connected to the SL activity are identic to the components of the previous phase.	Increasing awareness of students towards the needs of their close community and towards how their teaching practice and civic engagement impacts the quality of the educational process.	Reflections on the S-L event were made online, during the 3-week period of the program (i.e. written online journal). Art work reflections: a drawing poster to express the tutors' views and feelings at the end of the program. Oral presentation reflection: oral presentations at the celebration stage of the project (by both the coordinators and students). Reflections on the data collected for research purpose.

3.5.5. Conclusion

This study aimed to describe the restructuring proposal for PedTut, a previously developed Service-Learning (S-L) e-tutoring program for pre-service teachers, following the guidelines of a validated model for including S-L in higher education developed by CLAYSS (2016). The aim of the initial tutoring program (PedTut 1) was to develop and implement a Service-Learning based tool in order to aid students enrolled in the second year of the Pedagogical Training Module with feedback on their online reflection of the pedagogical practice, whereas PedTut II completes the previous by adding online pedagogical e-tutorials, restructured on the CLAYSS model (2016). We consider the model to be a first step towards a unified approach in implementing such programs in higher education, encouraging the inclusion of similar practices in core curricula. In addition, it is also a comprehensive guideline with tremendous utility in increasing scientific rigorousness of S-L implementation in all higher education institutions, with positive outcomes in ecological validity, community engagement, academic learning, and community impact.

Study 6 – Investigating the prerequisites for implementing Service-Learning(S-L) in universities: developing a tool for assessing the current state of S-L implementation at Babeş-Bolyai University

3.6.1. Introduction

The first part of the present chapter presents the development of a tool for evaluating the multidimensional prerequisites for implementing S-L programs in Romanian higher education, while the second part presents the results of the investigation making use of the developed tool within the Babeş Bolyai University. The first section of the tool is developed based on the Comprehensive Action Plan for S-L (CAPSL, Bringle & Hatcher, 2001) allowing the assessment of institutional prerequisites for S-L type programs, including elements related to: the level of awareness of S-L, previous participation in similar programs, S-L implementation, available resources, participants' availability, S-L curricula, perceptions, civic attitudes and pro-social behavior related to S-L. The second section of the tool sums up the dimensions of S-L's Faculty Toolkit for Service-Learning in Higher Education (Seifer & Connors, 2007) and addresses the definition and applicability of the concept, the SL faculties' support and their involvement in S-Ls, student S-L support and their involvement, institutional leadership and S-L support.

Service-Learning (S-L) is considered a relational reflection pedagogy that combines community service with well-structured learning opportunities (Heffernan, 2001). S-L is a learning experience that combines explicit learning objectives and reflection with community service (Seifer & Connors, 2007). This form of pedagogy gains popularity in the current Romanian education, especially in pre-university environments. Students involved in S-L activities have the opportunity to offer direct community service and learn about the context in which the service takes place, the connection between the service and their academic courses, as well as what it means to be a citizen (Seifer & Connors, 2007 apud Seifer, 1998 & amp; Jacoby, 1996).

Most S-L programs and competence-building skills related to community-based academic staff have tradition in the US space. The community engagement history of the academic community can be found in a summarized form in the paper "The community engagement professional in the emerging field" (Dostillio, 2017, Campus Compact) some elements favoring inclusion of S-L programs in the strategic objectives of universities. Some of these elements are: reconsidering the students' potential as agents of social change and realigning the mission of universities with the needs of the community, existent clear scientific evidence of the effectiveness of Service-Learning pedagogical practices on defined variables (individual, group, societal, in relation to community partners, etc.), the evolution of voluntary programs towards S-L (curricular connection, reflection component, civic learning and civic development competences, partnerships with community agencies), outlining clear models of S-L implementation at institutional level, with emphasis on the needs of teachers, students and the community (Dostilio & Perry, 2017). According to Dostilio (2017), the components that define the competencies required for community involvement through S-L programs in the case of university teachers are: knowledge (about S-L, functional support from the University - departments, faculty, curricular openings, etc.), skills and mood.

There is an increased number of consortiums that are being set up in the European space with the aims of establishing procedures for the S-L's operationalization in their individual educational contexts and identifying optimal strategies for the implementation of S-L practices at the institutional level in the joint direction of co-responsibility and civic development of students and academic staff. This is the case for the Erasmus Plus International Project (SLIHE), entitled Service Learning in Universities - Promoting the

Third Mission of Universities and Civic Involvement of Students and civic engagement of students. The SLIHE project includes a consortium of six EU partner institutions (Slovakia, Czech Republic, Romania, Germany, Croatia and Austria) and two non-European institutions. The coordinating institution is Matej Bel University in Slovakia, and Babeş-Bolyai University is one of the partners responsible for assessing the prerequisites necessary for the S-L implementation at the institutional level and elaborating an S-L training manual for academic staff. The idea of forming this academic consortium is based on reconsidering the position of universities towards their third mission, i.e. their social role, reflected in their involvement in community and society, considering that one of the pedagogical strategies to accomplish this mission is S-L. Some higher education institutions in the European space already have S-L programs and policies in place, and others, as is the case with the Babeş-Bolyai University (Rusu, Bencic & Hodor, 2014; Copaci & Rusu, 2015; Rusu, Trees , & Soos, 2015) are in the early stages of using this type of pedagogy. The main purpose of this project is to solidify the capacity of the Central and Eastern European universities to fulfill their social role by implementing the S-L strategy tailored to the educational context (development of training tools and materials).

3.6.2. Research Questions

This chapter describes an exploratory study of the prerequisites for S-L implementation in universities: the development of an evaluation tool and exploration of the current state of implementation of S-L pre-requisites within the Babeş-Bolyai University (BBU, http://www.ubbcluj.ro), as well as studying the needs of the teaching staff in the higher education regarding S-L alongside with their level of availability. Thus, the research was guided by a series of research questions::

1. *What is the current state of S-L implementation in BBU?*
2. *What are the needs of BBU teachers regarding S-L?*
3. *What is the level of previous experience of BBU teachers with the S-L methodology?*
4. *How available is the BBU staff in the situation of S-L implementation?*

3.6.3. Method

3.6.3.1. Design, participants, procedure, instruments

The *research design* was *exploratory* given the lack of previous information on the issue of S-L institutionalization in BBU and in order to draft hypothetical premises on the researched problem.

Participants

The survey participants (N=52) were all academic members of the BBU, located in Cluj Napoca (www.ubbcluj.ro), employees of all the 21 schools of BBU. The participants' age ranged from 25 to 63 years (mean 45,15, SD 9,6). Gender was equally distributed amongst the sample, with 50% male and 50% female. The nationality was predominantly Romanian (86.5%) with 9.6% Hungarian, 1.3% German, and 1.3% Hebrew. Regarding the professional rank, the majority of the participants chose not to mention their official ranking, which have been included in the Teacher category (44.2%). Out of the participants who disclosed their rankings, the majority were Lecturers (21.2%), followed by Professors (17.3%), Researchers, Teaching Assistants and PhD students (1.9%), located predominantly in urban environments (94.2%).

Research Procedure

The Service Learning Needs Survey (SLNS, Copaci, Soos, & Rusu, *in press*) was administered online to the academic staff of BBU by using the ECAS – Eusurvey Platform (http://ec.europa.eu/eusurvey), which is one the official tools for research management of the European Commission. Permission for the online data collection was granted through a written request to the Rector's Office of BBU. Data were collected from the 10th of November to the 20th of December 2017. Although the survey was administered to all the BBU teachers holding an institutional email address (approx. 2000 academic personnel), only a small percentage of 2.6 % (53 teachers) have completed the online survey. This rate of response is similar to the one reported by another study investigating the attitudes of BBU teachers toward diversity and their needs regarding the implementation of accessibility procedures for the educational inclusion of students with disability at Babes-Bolyai University (Costea-Barlutiu & Rusu, 2015).

Instruments
The Service Learning Needs Survey (SLNS)

The SLNS consists of two sections: a first section that includes demographic information and is developed on the basis of the Comprehensive Action Plan for S-L (CAPSL, Hatcher & Bringle, 2001), which contains defining elements for the implementation prerequisites evaluation, including aspects related to S-L awareness, previous participation in similar programs, S-L implementation, available resources, participants' availability, S-L curriculum, perceptions, civic attitudes and prosocial behavior related to S-L, and a second section (Seifer & Connors, 2007), which aims to collect information on the definition and applicability of the concept, supporting the faculty for the S-L and its involvement in S-L.

Section I of the instrument includes usability instructions, demographic data on age, gender, nationality, profession, residence environment, contact information, and structured questions about S-L at the University according to the Comprehensive Action Plan (CAPSL) for S-L developed by Hatcher and Bringle (2001). The last part of the first section of this tool consists of items based on the dimensions drawn from the CAPSL (faculty constituency), as follows: awareness (analysis of the familiarity with the concept, item 1), planning (level of popularity of the concept, interest for the concept and similar projects, items 2, 3, 4, 5), expansion (the willingness to introduce a S-L component in own's course, item 6), prototyping and evaluation (the procedure for introducing a S-L component in the course, credit and assessment of students, item 7, 9), recognition (attitude towards students involved in community service programs, item 10), institutionalization (the possibility of introducing a S-L component in the academic curriculum, item 8). Item typology is either single-choice items or Likert scale with 5-point multi-choice or short-response items.

Section II of the instrument is divided into 4 dimensions that comprise structured single-choice items and one short-response item. The items of this section are designed in accordance with the S-L sustainability self-evaluation guide (Seifer & Connors, 2007) which aims to evaluate the stage of S-L institutionalization at multiple levels within the institution. The four dimensions are considered by the authors as key factors in the institutionalization and sustainability of S-L in higher education. Each dimension contains a series of characteristic items that describe it. Each item is conceived considering a continuum divided into three stages of the implementation of the concept: Stage I, Stage II, and Stage III.

Stage I or " critical mass building" is the initial stage of S-L implementation in the university and refers to the first efforts to recognize, define and build a base for S-L. At this stage, the S-L concept is not clearly defined, being inconsistently used to define a variety of

community-oriented activities, and attempts to implement such programs are at the periphery of institutional efforts and insufficiently operationalized. The teaching staff is not always familiar with the concept of S-L, consequently its involvement is often modest, and the organic emergence of the coordinators (leaders) in the field is in development. Also, at this stage, there is neither a Strategic Plan for S-L, nor a co-ordinating structure to assist the implementation process (a committee, center) or ways to inform students about such opportunities, and the evaluation of the efforts and outcomes of these programs are non-systematic.

In *Stage II*, also referred to as *"quality building"*, the emphasis falls on quality and consistency in community-oriented activities in S-L. Universities in this stage, have a number of operationalizations of the S-L concept, but with relevant variability and inconsistency in use. So there are efforts to operationalize S-L components and stages, which are often mentioned as an important part of the university mission, although not yet officially included in their mission and / or strategic plan. The majority of university's teaching staff is familiar with the S-L concept, but few members are actively involved or provide coordination for S-L activities. At this stage, there may exist structures to assist S-L implementation, but not designed exclusively for S-L programs, and although programs can be recognized by education policy development committees, there are not always formal policies implemented. Moreover, there are means to help inform students about S-L opportunities and S-L impact assessment efforts, but these may be sporadic and unsystematic.

Stage III or the *"sustained institutionalization"* is characterized by the complete institutionalization of S-L in the university culture. At this stage, a formal and universally accepted definition for S-L is already adopted, which is consistently used in the context of the operationalization of most S-L aspects. S-L activities and efforts follow the stages and components suggested by literature (community partnership, explicit learning objectives, community service folded to its needs, reflection, assessment, celebration, student counseling, etc.). Most teaching staff are supposed to be familiar with the concept, maybe differentiate between S-L and similar activities (volunteering, internship, specialist practice) and are actively involved in S-L type activities. There is also a strategic plan for the S-L progress that includes viable goals both long term and short term, and S-L is part of the university's interests, being included in the official mission and / or strategic plan. There are also campus structures that coordinate S-L and promote opportunities for students that are also credited for taking S-L courses. Regarding the S-L assessment, it is conducted constantly, systematically and coordinated, and targets the quality and impact of S-L activities.

Data collection procedure

The instrument administration format was electronic using the ECAS - Eusurvey platform (https://ec.europa.eu/eusurvey), which is an online management system launched in 2013 by the European Commission to create and publish forms available to the public. The application is the official management tool of the European Commission's research. It is hosted by the European Commission's Department of Digital Services and offers a variety of usable elements in response forms, from simple (text items, multiple choice items) to complex (multimedia and editable matrix) (https://ec.europa.eu/eusurvey/home/about). The questionnaires were distributed to the participants by e-mail with the approval of the

Rectorate of BBU, accompanied by a descriptive introductory text of the questionnaire, ensuring the confidentiality of the data and the identity of the participants.

Items scoring in Section II was done on a scale of 0 to 3, 0 representing "don't know" answers, 1 representing Stage I responses, and similarly 2 and 3 representing the Stage II and III Implementation Responses respectively.

3.6.5. Results and discussion

Section A. S-L Premises at Institutional Level

3.6.5.1. S-L Awareness amongst BBU Teachers

BBU participants (N=52) were asked whether they were aware of the S-L concept and to what extent. Response options included: completely aware, superficially aware and not aware. Results indicated that the majority of BBU teachers reported a level of superficial awareness of the S-L concept (53,8%, N=28), followed by being unaware (28.8%, N=15) and lastly by being completely aware (17,3%, N=9), as presented in Table 3.6.5.1.1. Those teachers that were unaware or only superficially aware of S-L were presented with a short definition and main characteristics of the S-L concept before continuing the survey.

Table 3.6.5.1. *S-L Awareness levels amongst BBU teachers.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely aware	9	17.3	17.3	17.3
	Superficially aware	28	53.8	53.8	71.2
	Not aware	15	28.8	28.8	100.0
	Total	52	100.0	100.0	

3.6.5.2. Context for discovering the S-L concept

The follow-up item aimed to highlight the context of becoming aware of S-L. Out of the total respondents (N=52), a total of N=9 participants (17,3%) are completely aware of the S-L concept, as described above in the Awareness section (*note: the three members of SLIHE BBU team are amongst of the 9 respondents*). Out of the aware group (N=9), 33,3% (N=3) discovered the S-L concept in public scientific contexts such as conferences and workshops, 22.2% (N=2) encountered it in the workplace environment, on the job, 22.2% (N=2) from external Universities during shared programs or cultural exchanges and 22.2% (N=2) uncovered the concept as a result of self-involvement (including direct involvement and academic study of the literature), as presented in Table 3.6.5.2.1.

Table 3.6.5.2. *The contexts of discovering the S-L concept amongst BBU teachers.*

	Context	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Scientific	3	5.8	33.3	33.3
	Workplace	2	3.8	22.2	55.6
	External Universities	2	3.8	22.2	77.8
	Self-involvement	2	3.8	22.2	100.0
	Total	9	17.3	100.0	
Missing	System	43	82.7		
Total		52	100.0		

3.6.5.3. Degree of interest for becoming involved in S-L

BBU respondents were asked to rate their interest for becoming involved in an S-L project, on a scale from 1 to 5, where 1 was completely uninterested and 5 was extremely interested. Out of the total sample (N=52) of BBU teachers, 34.6% (N=18) were extremely interested and 34.6% (N=18) were intensely interested to participate in a future S-L project, whereas only 25% (N=13) where moderately interested, respectively 1.9% (N=1) uninterested and 3.8% (N=2) were completely uninterested.

3.6.5.4. Degree of availability for becoming a S-L as a member (scale 1-5)

The analysis for the responses regarding the degree of availability to become a S-L member of the advisory committee amongst BBU teachers, is as follows: only 7.7% (N=4) self-assessed as completely unavailable and 9.6% (N=5) unavailable respectively, whereas 30.8% (N=16) and 32.7% (N=17) declared themselves as very available and extremely available.

3.6.5.5. Degree of availability for becoming a S-L mentor

BBU teachers were asked to rate their degree of availability to become a S-L mentor; similar to previous analyses, that the trend bends towards availability: 32.7% (N=17) and 25% (N=13) disclosed high degrees of availability (very available and extremely available), whereas only 9.7% (N=5) and 7.7% (N=4) reported decreased degrees of availability (completely unavailable and very unavailable).

3.6.5.6. Usage of S-L activities in teaching

BBU teachers were asked to report whether they are making use of S-L and/or Experiential education activities in their teaching practice. Table 3.6.5.6.1. presents the findings: 36% (N=19) do not use any type of activity from the two options, 42.3% (N=22) reported using experiential activities and 21.2% (N=11) reported using both types of activities. However, when asked to offer details about these reported activities, the content analysis reveals that only N=2 answers from the total that reported using both types of activities including S-L (21.2%, N=11), correctly described using S-L activities, the remaining (N=9) vaguely described activities resembling experiential learning, confusing S-L for experiential learning, suggesting there is a lack of S-L information disseminated amongst BU teachers.

Table 3.6.5.6.1. *Usage of S-L/experiential activities in teaching amongst BBU teachers.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	S-L & Experiantial	11	21.2	21.2	21.2
	Experiential	22	42.3	42.3	63.5
	Neither	19	36.5	36.5	100.0
	Total	52	100.0	100.0	

3.6.5.7. Availability for introducing S-L in own teaching course/ discipline

The information regarding BBU teachers' self-reported availability for introducing a S-L component in their own teaching course/ discipline is promising: the majority reported high levels of availability with 42.3% (N=22) extremely available and 21.2% very available, whereas only a small percentage reported unavailability (7.7%, N=4) and complete unavailability (1,9%, N=1) respectively.

3.6.5.8. Own's beliefs about the possibility of introducing S-L in own's course

BBU teachers were asked whether they thought introducing S-L in their own course would be a possibility. Even with little information about S-L, the majority answered Yes (86.5%, N=45), leaving only 13.5% (N=7) respondents not having the belief that introducing a S-L component would be possible.

3.6.5.9. Teachers' perceptions of students involved in community-oriented activities

BBU teachers reported whether their perceptions of students involved in community-oriented activities (S-L included) are different from those who do choose to become involved. The results show that 80.8% (N=42) teachers perceive civic-active students positively different compared to their non-involved peers and only 19.2% (N=10) reported unbiased perceptions between the two groups of students.

3.6.5.10. Preferred method for crediting S-L courses

BBU participants were asked how would they credit a S-L program embedded in a course; a multiple choice item was available. Five item choices were given and the frequency and percentage of items is as follows: Diploma awarded to the student (Dp, 11,7%), Additional course / seminar score Individual grade / grade with percentage of course value (Add, 37.7%), Equating one's project with the S-L (Eq, 19.5%) or Other methods (2.6%). The participants also suggested other crediting methods such as prizes for the students, encouragement to participate in conferences and dissemination of the students' results in conferences and in the local media.

3.6.5.11. Predicted S-L influence on own's course

BBU participants were asked to comment on how could a S-L component influence their own course/discipline. Their predictions were divided into 3 main categories as follows: (1) modest influence or not at all (N=5, 9.6%), (2) neutral influence or don't know (13,5%,

N=7) and (3) positive influence (76,9%, N=40). The prevailing themes through the responses from the third category (3 – positive influence) were: 'increased academic content retention due to S-L', 'increased attractiveness of the course due to S-L', 'in-depth learning of course material with S-L', 'bridging the gap towards reality through S-L', 'increased accessibility of the course due to S-L', 'increased efficiency of the course due to S-L', 'S-L helping students establish their role in modern society', 'increased employee efficiency by improving their competences through S-L'. On the other hand, the short narratives of the predictions from the first and second categories (modest influence or not at all and neutral influence or don't know) revealed that there is insufficient knowledge disseminated to teachers about S-L which might influence their perception of S-L as a flexible tool, with themes ranging from 'don't know' to 'S-L does not apply to any course' and 'reluctance of introducing an insufficiently defined component into one's courses' or 'inability to involve the community in the course's activity'.

Secion B. Assessment of the S-L Institutionalization Stage at BBU

Section B presents a detailed overview of the SNLS survey (Copaci, Soos & Rusu, in press) results gathered from the second section that focuses on the self-assessment of the S-L institutionalization stage at in the university. The current section includes self-assessed elements (sub-sections) of institutionalization, categorized in four dimensions ((1) Definition and application of S-L, (2) Faculty support for and involvement in S-L, (3) Student support for and involvement in S-L, and (4) Institutional leadership and support for S-L) and a final sub-section describing results regarding the overall institutionalization stage of S-L at BBU (5) Overall Assessment of the S-L Institutionalization Stage at BBU). Items from each dimension are scored on a three-stage continuum of development: stage 1 (critical mass building), stage 2 (quality building), stage 3 (sustained institutionalization) and 0 (don't know) (Seifer & Connors, 2007).

3.6.5.12. Dimension 1: Definition and Application of S-L

The analysis of the valid self-reported responses from to the first dimension places BBU in the second stage of the S-L institutionalisation (Quality building) regarding the definition and application of S-L, with an overall 25% of responses accounting for stage 2 (N=208 responses), whereas the majority of the respondents answered with don't know (45,2%) due to lack of S-L information. In this stage, the institution is focused on ensuring the development of "quality" community-based activities and continuing to build the constituency for them (Seifer & Connors, 2007).

Thus, the results indicate that in the case of BBU, there is a definition of S-L but with variability and inconsistency in the usage of the concept, there are few S-L activities that include all the mandatory components of such programs, that there is currently no strategic plan to include S-L goals and even if mentioned frequently, S-L is not yet included in the official mission of the institution nor in the strategic plan.

3.6.5.13. Dimension 2: Faculty Support and Involvement in S-L

Regarding the second dimension of the checklist, **Faculty Support and Involvement in S-L**, self-reported answers place BBU in the **first stage** (*critical mass building*) of S-L implementation where the institution is beginning to recognize S-L and build a constituency for the involvement effort (Seifer & Connors, 2007). Therefore, the results show that 36% of

the responses account for stage 1 (N=208) and almost half of the responses (49.5%, N=208) were "don't know" responses.

More specific, the findings conclude that there are very few faculty members that understand S-L in-depth and are able to differentiate between it and similar programs, very few faculty members ready to become advocates and support the integration of S-L (in their own course or in the institution's mission), and that there is a lack of encouragement from the institution and few financial rewards to pursue S-L. Even more, S-L is not recognized during the teachers' annual review process.

3.6.5.14. Dimension 3: Student Support for and Involvement in S-L

The analysis of the self-reported answers belonging to the third dimension, student support and involvement in S-L also place BBU in the first stage of S-L implementation (critical mass building) according to the authors. More than half of the responses were don't know responses (57,2%, N=208 answers), in the cases when respondents did not know any details about the student support for S-L at BBU. The majority of the valid responses (23.1%, N=208 responses) account **for the first stage of S-L implementation**.

Therefore, we can conclude that the results show a lack of mechanisms present at BBU to inform students about S-L courses and opportunities and few such opportunities exist for students (either to take on membership or leadership roles). Moreover, there are no formal mechanisms to encourage students to participate in S-L or reward them for their participation at BBU, the few initiatives taking place at smaller, informal scales.

3.6.5.15. Dimension 4. Institutional Leadership and Support for S-L

Regarding the **institutional leadership and support for S-L** dimension, respondents also placed BBU in **stage 1 of the institutionalization implementation** continuum, the critical mass building, with 24% (N=208 responses) of valid responses accounting for stage 1 and 67,3 responses of don't know. More explicitly, there is common belief amongst university teachers that there is no coordinating S-L structure on campus to assist with the implementation, advancement and institutionalization, there are no policy-making boards or committees to have recognized S-L as an essential educational strategy and that administrative leaders do not have an in-depth understanding of the concept. Also, to their knowledge, there is no effort underway to account for the evaluation of the quality and impact of S-L and that S-L activities are supported primarily from external sources (short-term grants).

3.6.5.16. Overall Assessment of the S-L Institutionalization Stage at BBU

The overall assessment of the S-L institutionalization stage at BBU reveals that teachers' total self-reports place BBU in the first stage of the S-L institutionalisation continuum, with 25.7% of responses (N=832 responses) accounting for it as shown in Table 3.6.5.16.1.

Table 3.6.5.16.1. *Overall Assessment of the S-L Institutionalization Stage at BBU.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DK	456	54.8	54.8	54.8
	Stage 1	214	25.7	25.7	80.5
	Stage 2	127	15.3	15.3	95.8
	Stage 3	35	4.2	4.2	100.0
	Total	832	100.0	100.0	

Section C. Assessment of BBU Teachers Needs Regarding S-L

Section C presents a detailed overview of the qualitative data gathered with the SNLS survey (Copaci, Soos & Rusu, in press). Strongly related to Section B, the data corpus regarding teacher's needs is grouped based on the four S-L institutionalization dimensions discussed in Section B ((1) Definition and application of S-L, (2) Faculty support for and involvement in S-L, (3) Student support for and involvement in S-L, and (4) Institutional leadership and support for S-L). In the SNLS Questionnaire, the above dimensions also include an open response item that targets a short narrative that describes teacher's needs in relationship to S-L taking into consideration the corresponding dimension.

3.6.5.17. Evaluating the S-L Needs of BBU

Qualitative data was analysed using *thematic analysis* (Braun & Clarke, 2006). Thematic analysis is a method for identifying, analysing, and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail. However, it also often goes further than this, and interprets various aspects of the research topic (Braun & Clarke, 2006 apud Boyatzis, 1998).

The data corpus is split into four data sets, taking the institutionalization dimension into account, as presented below. Each data set presented below is split into semantic codes (that identify the most basic segment of the raw data) and themes that capture important aspects about the data in relation to the research question, and represents some level of patterned response or meaning within the data set (Boyatzis, 1998 apud Braun & Clarke, 2006). Presented below are the lists of data set themes for each dimension, together with the clustered segments of code that lead to the specific theme.

3.6.6. Conclusions, limits and future directions of research

This research aimed at exploring the prerequisites for S-L implementation in Romanian universities by developing a tool for assessing and exploring the current state of implementation of S-L pre-requisites within Babeş-Bolyai University, along with assessing and analysing the S-L needs of teaching staff.

Guided by research questions, the analysis of the results indicates that BBU is still at an early stage of S-L implementation: according to the instrument (SLNS, Copaci, Rusu & Soos, 2016), BBU is in a general context in the first stage of S-L implementation in the university, also called the critical mass building. At definition and application of S-L level in the university, the theoretical level, BBU is in the second stage of institutionalization, also called quality building, with an existing definition of S-L but inconsistently used, and with sporadic non-systematic S-L activities, lacking a strategic plan to include S-L objectives. In the context of the faculty support and involvement in S-L, the support and involvement of the students in S-L, respectively the leadership and the institutional support for S-L, the answers place BBU in the first stage of the continuation of institutionalization, the critical mass building, the stage in which the institution starts to recognize S-L, build a constituency for participants' effort to engage, add a supportive framework for S-L implementation, and start efforts to settle a commonly accepted definition.

Concerning the research question regarding the previous experience of S-L teachers, the results indicate that the concept of S-L is superficially used in BBU by over half of the sample (54%). While 21.2% of the participants report the use of S-L in teaching (N = 11), only N = 2 correctly describe the S-L activities used, the remainder of N = 9 participants confusing experimental learning activities with S-L.

However, we can conclude that there is local potential for institutionalization of S-L, given the high level of interest in S-L involvement among respondents (34.6% interested, 34.6% very interested), high availability to become members of the guidance commission or S-L mentors (32.7% interested, 30.8% very interested) and optimistic beliefs about the introduction of S-L in the course of teaching (86.5% believe that the introduction of S-L is possible in their own course), (76.9% foresee positive levels of influence of S-L on their own course).

The qualitative thematic analysis on the needs of the Babeş-Bolyai University teachers regarding the S-L reveals the following trends:

- There is a need to establish a coordinating structure for S-L in the structure of the institution;

- It is necessary to allocate resources (human, material, incentives, time) for S-L;

- It is necessary to disseminate coherent and accurate scientific information about S-L at the level of students, teachers and community partners, by competent trainers;

- It is necessary to establish methodological guides / S-L implementation plans;

- Participants frequently mention the need to recognize the efforts of teachers and students involved in the S-L (such as inclusion of these criteria in the teacher's regular assessment);

- It is necessary to organize educational sessions / S-L workshops for teachers.

The limits of this study are related to the use of self-reporting tools that may be influenced by the desirability bias and the reduced sample size of participants, which may affect the level of generalizability of the study. Low levels of participation were also recorded in the recent surveys addressed to BBU staff (Costeta-Bărluţiu & Rusu, 2015). In close connection with the qualitative thematic analysis of the presented results, future research directions could be centered on developing methodological guidelines for implementing S-L programs with examples of good practice or on-line training programs to streamline access to information on S-L at the academic level, which could be a step forward towards institutionalizing this extremely valuable curricular tool in curriculum and, of course, including them in the third mission of the university. The third mission of universities refers to their tertiary function in the context of a knowledge-based society, where, in addition to being responsible for the qualification of human capital (Education - the first mission) and the production of knowledge (Research - second mission) universities must also meet social needs and labor market requirements by linking their own activities with the local socio-economic context (https://www.igi-global.com/dictionary/universitys-third-mission).

Chapter III. GENERAL DISCUSSION AND CONCLUSION

This PhD thesis aims to take a first step towards the institutionalization of community-oriented learning in the university by investigating the current state of implementation of S-L pedagogy in a higher education institution (Babeş-Bolyai University, Cluj -Napoca, Romania). The final goal of the paper is to provide alternative ways to increase the efficiency of pedagogical training of digital native students through S-L, together with emfasizing the potential of web 2.0 resources in self-education and facilitating access to training programs for all teachers, in order to increase work satisfaction and performance.

The original contribution of the thesis is structured in six distinct stages that consisted of six semi-independent methodological studies, whose itinerary contributed to the S-L literature, both independent and subsumed, as co-dependent stages in achieving the overall research goal. The efforts undertaken in this paper to investigate the S-L and its associated variables were guided by Furco's (2011) and Billing's (2000) S-L conceptualization and by the CLAYSS (2016) scientifically validated S-L Institutionalization Model. According to literature, S-L is "*any closely monitored service experience (in the community) where the student assumes intentional learning goals and actively reflects on what he learns from experience"* (Billing, 2000*)* and an educational tool that*"wants to involve individuals in activities that combine both community service and academic learning*" (Furco, 2011).

Regarding the classification and the itinerary of the S-L activities presented in this paper, they follow the model proposed by CLAYSS (2016) where any S-L project can be defined as: (1) part of a class of activities, (2) part of a course or school activity, (3) part of a multidisciplinary program involving courses and hours, (4) part of professional practice, (5) as a separate S-L course or (6) part of a research project (university or post-graduate). Furthermore, the authors (CLAYSS, 2016) argue that any S-L project is carried out following the following phases: (1) diagnosis and planning, (2) execution, (3) reflection, (4) demonstration and celebration, (5) communication and (6) evaluation.

The present paper investigated, on the basis of the concepts and models presented above, the S-L role in optimizing the pedagogical training and social accountability of native digital students in the context of higher education in Romania. The steps taken to achieve these objectives were: shaping the profiles of the various S-L models from literature for pre-service teachers, proposing and testing a student-to-student–S-L e-tutoring program and investigating the variables related to S-L, adapting and linguistically validating a tool for assessing the effects of S-L on students and their civic responsibility, investigating the prerequisites for S-L implementation at Babes-Bolyai University, along with developing a tool for assessing the current state of prerequisites in Romanian higher academic institutions.

Contributions and theoretical implications

Study 1 of this PhD research project aimed to investigate the literature research published between 2010-2015 to analyze recent contributions to the specificity of e-tutorials programs addressed to native digital students. E-tutorials are defined as "the individualized support from a guardian to a single student or a small group of students who use the Internet as the first medium of communication" (Corrigan, 2012 apud Johnson & Bratt, 2009). The objective of this exploratory study was to collect, sort and analyze existing data on the typology and methodology of e-tutoring programs addressed to digital-native students in order to improve the current level of scientific knowledge, by shaping a profile outline of these programs, which can serve as a benchmark in their future development.

In this respect, the methodology of the *systematic review* of the literature was used and a number of 8 valid researches analysed (Poor & Brown, 2013, Lin & Yahg, 2013, Arco-Tirado et al. , 2011, Peacock et al., 2012, Doukakis et al., 2013, Herzog & Katzlinger, 2011, Rusu, Copaci & Soos, 2015, Hodges et al., 2014), having a wide range of objectives, types and categories of programs, methodologies, research patterns and challenges.

The results of this systematic analysis indicate the existence of a broad spectrum of e-tutoring research objectives: recent studies focus either on improving the depth of information storage or on interactive learning (Poor & Brown, 2013, Lin & Yahg, 2013, Arco- (2011), and Peacock et al., 2012), on developing skills related to the workplace (Doukakis et al., 2013; Herzog & Katzlinger, 2011; Rusu, Copaci & Soos, 2015), or on the quality of the interaction between guardian and students (Hodges et al., 2014). While some studies focus on the development of students' psychological variables, such as cognitive and meta-cognitive learning strategies, social skills, self-efficacy, happiness and civic attitudes (Arco-Tirado et al., 2011; , 2015), others focus on enhancing the participants' knowledge and procedural capacities (Herzog & Katzlinger, 2011; Doukakis et al., 2013). The examined literature indicates a continuing preference for programs whose e-tutors are previously trained with 5 out of 8 programs assigning the content of the e-tutorial to qualified e-tutors. Another key feature of this review is the use of teachers to fill the tutor role, as 5 out of 8 programs were "teacher-student" e-tutorials while only 3 programs chose the "student-for-student' approach. Most e-tutorials are structured programs, and all tutorials were offered to students as an additional university course or as a support module and not as a substitute course, while their average duration of the program does not exceed 4 weeks. The computer technology environments mainly used in e-tutoring are educational platforms, followed by e-mail / videochat / chat and cloud (google) platforms. Data analysis methods use either qualitative designs or mixed designs.

An important aspect of this study is that the different research directions identified in the field of e-tutoring highlight the potential and adaptability of such support programs in higher education, whether they are designed to improve the learning process or to prepare students for insertion into the labor market.

This study developed a specific profile outline of the academic e-tutoring programs for the digital-native students having the following features: the program uses classical e-tutorials (requiring online meetings and at least two face-to-face meetings with a tutorial), takes place for maximum 4 weeks, is a structured program (support program or additional course), uses a teacher-student approach and trained tutors, mixed research (qualitative and quantitative) and various types of computer technology starting with educational platforms.

The second study is a pilot study that aims to examine (experimental approach) the influence of a student-for-student S-L pedagogical (PedTut) program on the level of civic attitudes, skills, subjective happiness and teacher self-efficacy.

The literature prerequisites suggest that S-L programs contribute to the academic and personal development of the participants by developing written communication skills, critical thinking, overall performance – GPA (Astin et al., 2000; Conrad & Hedin , 1991), have the capacity to expand problem-solving skills and moral thinking (Conrad & Hedin, 1991), support the development of personal and social responsibility, positive social attitudes, civic actions, political awareness, appreciation of diversity (Simons & Cleary, 2006; Conrad & Hedin, 1991; Hamilton & amp; Fenzel, 1988). The methodology of evaluating the effects of S-L programs in literature refers to the development of civic attitudes and diversity attitudes (Markus, Howard & King, 1993; Moely et al., 2002; Simons & Cleary, 2006; Buch & Harden, 2011). Starting from the state of scientific knowledge outlined above and taking into

consideration all the informations obtained as a result of the systematic review in Study 1 of this paper, assumptions were made and tested on the positive influence of a S-L online tutorial on the development of competencies associated with S-L: self-esteem, subjective happiness, civic attitudes and abilities - civic actions, attitudes towards diversity and interpersonal skills to solve problems at the level of participants.

The results suggest that students' attitudes of diversity have been considerably improved after participating in the e-tutoring program (PedTut), suggesting that the students in the experimental group are more open to interacting with other cultures, have more positive attitudes towards foreign cultures and appreciate the value that cultural diversity brings to a group after the completion of such a program. Interestingly, although attitudes towards diversity have changed significantly in a positive manner, there were no statistically significant effects on the other variables mentioned in relation to S-L (self-efficacy, subjective happiness, civic attitudes - civic actions and interpersonal problem-solving skills). However, Study 2 has been able to highlight a significant correlation between the final student GPA and the level of involvement in volunteering, suggesting an association between high service and high-performance activities, a presumption congruent with the results from literature (Astin et al., 2000; Conrad & Hedin, 1991). Furthermore, there was no significant correlation between the students' self-esteem levels and their attitudes towards diversity. Similarly, there was no significant correlation between the level of self-efficacy and self-reported religiosity, but there was a negative association between these two variables. This result proposes the need for future research into the association between religiosity and self-efficacy (for example, if there is an association between the promotion of modesty and humble attitudes and a low level of self-efficacy in students). Study 2 succeeds to provide relevant qualitative information on students' needs during their pedagogical practice. The results of the qualitative analysis reveal that students encounter difficulties, related in particular to time management and classroom management, communication difficulties, decision-making on lecture design and emotional management. These results are valuable as they have served as an input for optimizing and restructuring the PedTut program (Study 5), but also offer potential in designing future S-L programs.

The third study of this doctoral thesis had the objective of investigating the recent literature (between 2009-2016) regarding S-L courses designed to improve the learning experiences and the results of the pre-service teachers, after a predetermined algorithm, systematizing the results of the investigation guided by research questions in order to enrich the scientific knowledge by drawing up a best practice profile for drawing up the curricula of the S-L programs, respectively for their implementation.

Using the systematic review method, results from the 15 studies reveal the correlates of the S-L programs: the obesctives and typology of the most common programs, the activities and the hosting environment for them, the specificity of the reflection component, and the average duration and methodology of their assessment.

Starting from the S-L's working definitions as a flexible and malleable curricular tool, the landscape illustrating the aims of these programs appears to be vast and variable: while some directions focus on improving authentic learning experiences (Green, 2011; Power (Chang, Anagnostopoulos, & Omae, 2011; Carrington & Selva, 2010; Cone, 2012; Kim, 2012), others aim to facilitate the student's transition to the actual practice Coffey, 2011). The aims of the studies included in the systematic analysis are situated on a continuum between positively influencing student assumptions or diminishing negative stereotypes (Conner, 2010), self-efficacy (Trauth-Nare, 2015), civic efficacy (Iverson & James, 2010; encouraging introspection (Carrington & Selva, 2010; Whiteland, 2013) to addressing and maintaining a partnership that can be supported with the community (Sletto, 2010; Whiteland, 2013).

The results of study 3 indicate that the most common type of S-L project implemented in higher education (a situation present in the US where most programs are implemented) is S-L as a subset / included component of a course from the academic program, never reported as an independent course. Hosting environments for S-Ls are typically educational institutions, community organizations and centers, as well as learning centers. There is also a preference for using structured activities based on clear content or lesson plans, with previously trained participants assisted by guides and operational objectives, mostly in teaching, literacy and tutoring. Reflection is a crucial component of the S-L program itinerary, because it links the S-L experience to the academic content filter (Heffernan, 2001). Almost half of the studies investigated chose the reflection journal as the main component of reflection, while a smaller number decided to involve technology due to the fact that it is more suited to the digital-native student (Prensky, 2001): blogging (Green, 2011) , weekly journal (Iverson & James, 2010; Sletto, 2010) or digital stories (Power & Bennet, 2015). The preferred timeframe for these programs was an academic semester. Regarding the evaluation of the programs, the results indicate that the preferred methods are official written tasks at the end of the program coupled with exit interviews. Conversely, only three studies chose not to formally assess students, and only one study used alternative (and modern) assessment methods, such as posters, short stories, and photography. Only one program out of a total of 15 reviewed included the celebration component in the form of a closing ceremony (Iverson & James, 2010).

An important and noteworthy aspect observed in the systematic review is that, although there are various directions of S-L interventions in higher education, which underlines their malleability, all the studies identified in the 3rd study are student-oriented and begin with the student, focusing on modifying variables at the student level.

The 4th study of the doctoral research project proposed the adaptation, translation and the linguistic validation, in Romanian from English, of an existing instrument in literature for the evaluation of the S-L programs results at the level of the participants, targeting the civic attitudes, interpersonal and problem-solving skills and diversity attitudes.

The approach taken in this study contributes to the accessibility of the use of S-L assessment tools within the Romanian population, as there are no similar tools available in Romanian. For this purpose, the *Civic Attitudes and Skills Questionnaire* (CASQ - Moely et al., 2002) was used. For the purpose of the linguistic validation of the instrument, three sub-scales were used, based on previous findings in the literature, which indicate the beneficial impact S-L programs have on these dimensions: (1) the Civic Action subscale, (2) the Interpersonal and Problem Solving Skills subscale and (3) the Diversity Attitudes subscale.

The steps followed and described in the chapter addressed to this study led to the production of a systematized version of the Civic Attitudes and Skills Questionnaire (Moely et al., 2002) in order to evaluate the S-L effects with excellent psychometric properties. Piloting results indicate that for the Romanian version the instrument fidelity is very high, with a general scale coefficient of .894 and Cronbach's alpha coefficients of .889 for the C.A., .892 for the I.P.S.S. subscale and .735 for the D.A. subscale. In addition, the results of the scale equivalence testing support the initial hypothesis (according to which the equivalence between the Romanian version and the English version of the instrument will be ascertained): Wilcoxon of the CASQ scale for the individual C.A., I.P.S.S., D.A. and also for each pair of items included in the subscales, showed that there is no statistically significant difference between the source language (English) and the translation (Romanian), suggesting that the two language variants are equivalent. Moreover, association coefficients between the two versions were computed with the Spearman correlations for subscales, which indicate significant correlation coefficients for the items in the two language versions, again pointing

out that the two versions of the scale (the English version and the Romanian version) are equivalent.

Study 5 of this thesis aimed to restructure, continue and expand the PedTut I online tutorial (presented in Study 2) in PedTut II, according to a validated scientific model for inserting S-L programs into academic institutions proposed by CLAYSS (CLAYSS, 2016). The initial purpose of the PedTut e-tutoring program was to develop and implement an S-L project to facilitate the transition of students enrolled in the pedagogical module from the university to the labor market and to streamline their pedagogical training with online feedback on their practice pedagogical work on methodological or psychological components. The next stage of its evolution continued the research process by refining and expanding the PedTut I initial model. PedTut I proposed the development and implementation of a community-oriented learning tool for counseling students enrolled in Year 2 of the Pedagogical Training Module with online feedback on their reflection on practice while PedTut II complements the above by adding online pedagogical e-tutorials, restructured according to the CLAYSS model (2016). We consider this model as a first step towards a unifying approach to implementing these programs in higher education and encourage the inclusion of similar practices in the Core Curriculum. Moreover, it is also a comprehensive guide with major utility in increasing the scientific of S-L implementation in all higher education institutions, with positive results on ecological validity, civic engagement, academic study and community impact.

The restructuring proposed in Study 5 closely follows the recommended steps in S-L literature: training / diagnosis and planning (identifying community needs, setting goals and objectives for the S-L project, skills, resources and activities), the implementation (and maintaining the link between community orientation and academic content), assessment (assessment of the student's academic, social and civic learning) and celebration (appraisal, presentation, and celebration of work) (Jenkins, Sheehey & colab., 2011; CLAYSS, 2016).

Study 6 of this research project is an exploratory study conducted to collect and systematize information on S-L institutionalization issues in Babeş-Bolyai University to set out premises that facilitate designing an aerial picture of this issue. A first objective of the sixth study was developing a tool for assessing pre-requisites for S-L implementation in Romanian universities, using Babeş-Bolyai University as a case study. As a result, the Pre-requisite evaluation tool for S-L strategy implementation and teachers' needs in higher education (SLNS) was developed. This tool comprises two sections. The first section includes demographic information and is developed on the basis of the Comprehensive S-L Action Plan (CAPSL, Hatcher & Bringle, 2001), which contains elements of pre-requisites associated with S-L implementation at institutional level, related S-L awareness, previous participation in similar programs, S-L implementation, available resources, participants' availability, S-L curriculum, perceptions, attitudes, and prosocial behavior related to S-L. The second section focuses on the dimensions of the S-L sustainability self-evaluation guide in the university (Seifer & Connors, 2007) and aims to collect information on the definition and applicability of the concept, the S-L faculty support and its involvement in the S-L, the support offered to students for S-L and their involvement in S-L, institutional leadership and S-L support.

The second objective pursued in Study 6 was to investigate the prerequisites for S-L implementation in universities, including the level of popularity of the concept, the attitudes and availability of S-L teachers, the needs of teachers connected with S-L, and the level of institutionalization of S-L in BBU. Using the tool developed in the first part of this study, the following have been investigated: pre-requisites for S-L implementation in BBU at the level

of teachers, the state of S-L implementation in BBU, as well as the needs of the teaching staff in relation to different dimensions of S-L institutionalization.

The results indicate that the analyzed institution is overall in the first stage of S-L implementation at the university, also called the critical mass building. In the definition and application level of S-L in the university, BBU is in the second stage of institutionalization, also referred to as quality building, having a S-L definition, but which is incosnsistently being used. The S-L activities are sporadic non-systematic, without a strategic plan to include S-L objectives. In the context of the faculty support and involvement in the S-L, the support and involvement of the students in the S-L, respectively the leadership and the institutional support for S-L, the teachers' answers place BBU in the first stage of the institutionalization, the cirical mass building, the stage in which the institution starts to recognize S-L and to build a constituency for participants' effort to engage, as well as an to enable S-L implementation frameworks.

The results of previous teachers' experience with S-L show that the concept is only superficially known by over half of the sample participants. 21.2% of participants report using S-L in teaching, but only two of them correctly describe S-L activities as S-L, the remaining nine participants reporting confusion between experiential learning activities and S-L.

While the levels of implementation and full awareness of the concept are still at an early stage, the results indicate that there is local potential for S-L institutionalization given the high level of interest in S-L involvement among respondents (as members, committee members guidance, mentors), availability for introducing a S-L component in the course and predominantly optimistic beliefs about the effects of introducing S-L in their own course.

The results of the qualitative thematic analysis conducted to identify the needs of the Babeş-Bolyai University teachers in relation to S-L mainly emphasize the need to establish a coordinating structure for S-L in the academic campus, to allocate resources (human, material, incentives, time) for S-L and to disseminate coherent and accurate information on S-L by organizing educational sessions for teachers, but also to provide methodological guides and S-L implementation plans. Participating teachers often mention the need to recognize and reward the efforts of teachers and students involved in the S-L (such as inclusion of these criteria in teacher recurrent assessment).

Contributions and practical implications

The contributions and practical implications of the doctoral thesis are numerous and varied because they consist of the sum of the contributions related to each individual study included in this document. In this respect, we consider that the results of the two systematic analyzes presented in Study 1 and Study 2 provide relevant information on the profiles of S-L programs and academic e-tutoring in higher academic institutions that have institutionalized such practices and which can be used in the design of future programs of S-L, but also in the design of guides and methodological suggestions for teachers containing S-L implementation information.

We also give the tools developed within the doctoral thesis a methodological importance due to their good psychometric properties and usefulness in the evaluation of the effects of the S-L programs, and their utility in assessing the needs of the teaching staff with S-L, the level of institutionalization of S-L within BBU, pre-requisites for S-L in the university.

Study 6 has an important practical utility which can be a first step towards the institutionalization of S-L in Babeş-Bolyai University and the inclusion of this form of pedagogy in the third mission of the university (the civic role of the higher education

institutions) (according to igi-global.com) because it provides information (both quantitative and qualitative) relevant to the stages of implementation of various dimensions of S-L in BBU, of the needs of S-L teachers and prerequisites for SL implementation, information that can be used in future to institutionalize learning to the community.

Main conclusions

The PhD thesis has the following main conclusions:

1. The specific profile of the academic e-tutorials for the digital-native students identified in the literature has the following characteristics: it uses classic e-tutoring (requiring online meetings and at least two face-to-face meetings with tutors); has a duration of up to 4 weeks, is a structured program (support program or additional course), is the teacher-student type and uses trained tutors, mixed research (qualitative and quantitative) and various types of computerized technology (mainly educational platforms).

2. Students' attitudes towards diversity have been considerably improved after participating in S-L e-tutoring (PedTut) program, suggesting that the students (tutors) in the participants group are more open to interacting with other cultures, have more positive attitudes towards foreign cultures and appreciate the value that cultural diversity brings to a group after the completion of such a program. The benefits of the S-L program are also supported by a significant correlation between the GPA and the level of involvement in volunteering.

3. The profile developed on the basis of the systematic analysis of the specialized literature of S-L programs for future teachers includes various objectives (improving authentic learning experiences, positive attitudes, facilitating the student's transition to the actual practice), is implemented as a component of an academic course, has hosting environments such as educational institutions, community organizations and centers or learning centers, uses structured learning activities based lesson plans, with previously trained participants assisted by guides and operational objectives, includes teaching, literacy and tutorials, uses the reflection journal as a main component of reflection and its assessment consists of formal written tasks at the end of the program coupled with exit interviews.

4. Adaptation for Romanian use of an English tool for assessing the effects of S-L on participants on civic attitudes, interpersonal and problem-solving skills and attitudes towards diversity resulted in the production of a useful tool in Romanian language with good psychometric properties.

5. By following the itinerary of a validated model for S-L implementation in higher education institutions, a restructured and extended version of the S-L PedTut e-tutoring program was produced, with the following stages: preparation / diagnosis of the community need, implementation (and maintaining the link between community orientation and academic content), evaluation (assessment of the course, and / or academic, civic student) and demonstration / celebration (discussion, presentation and celebration of work) (Jenkins & Sheehey, 2011; CLAYSS, 2016).

6. A a tool was developed for the assessment of S-L pre-requisites, S-L implementation and the S-L needs of teachers, the Service-Learning Implementation and Needs Survey (SLNS) has 2 sections: a first section that includes demographic and correlated information, developed on the basis of the S-L Comprehensive Action Plan (CAPSL, Hatcher & Bringle, 2001), and a second section focused on dimensions taken from the S-L Sustainability and Self-Assessment Guide at the University.

7. Babeş-Bolyai University (through the teaching staff involved in the study) is in a general context in the first stage of S-L implementation in the university, called the

critical mass building, a stage in which these programs are based, with encouraging results regarding the possibility of implementing such programs in the university due to the optimistic orientation and the high interest shown by the participating teachers within BBU.

Limits and future directions of research

This doctoral research project also has a number of research limits, which are extensively discussed and individualized within each stage / study included in the research. The overall boundaries of the research project are limits of the impact of research and limits of collected statistical data, from which future directions of research emerge.

As far as the limits of the impact of the research are concerned, they exist due to the typology of the sample participants of the study, to whom the tools were offered online, where the participation of the non-literate individuals is excluded, the majority of the samples of the female persons and the number reduced participation, which can affect the degree of generalizing the data versus the impact of research.

Concerning the limits of the collected statistical data, given that the majority of self-reporting tools were used in this research project, participants' responses may be biased due to social desirability, although attempts were made to correct them using appropriate tools. Another important limit in this category relates to the tools used to test the hypotheses of the project studies, where, except for an adapted and validated linguistic instrument for use in Romanian, the rest of the instruments have been only translated and semantically adapted.

As future directions of research, we propose to extend and re-implement the restructured S-L program according to the scientifically validated model proposed by CLAYSS (2016) (Studies 2 and 5) by developing video e-tutorials and focusing our attention on the students from other faculties of Babeş-Bolyai and to enroll master students in training programs to become S-L tutors for younger, undergraduate students. Thus, it is desirable to extend this study to a larger sample, to include pedagogical para-content variables and to increase accessibility for students, as well as to promote the benefits of S-L programs for raising awareness and encouraging student participation in them. Of course, the developed tools (SLNS, Study 6) and adapted (CASQ, Study 4) can be used to evaluate the effectiveness of the programs in this paper.

Regarding the results of the investigation of S-L pre-requisites, the level of implementation and the needs of the teachers in the case of Babes-Bolyai University (Study 6), the future research directions will focus on elaborating methodological guides for the implementation of S-L programs with examples of good practices or offering on-line training programs to streamline access to information on S-L at the academic level, which could be a step forward in institutionalizing this tool and, of course, include it in the third mission of the university.

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