
Factors Influencing Service Learning in Elementary Schools

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Abstract

Purpose: This study aimed to determine the factors affecting Service Learning (SL) in Elementary school students in Tehran.

Methodology: The present descriptive survey research was conducted in terms of the goal as basic with mixed approach, exploratory categorization. In the qualitative part, in addition to using specialized texts in the field of SL, Teachers and specialists active in the field of service learning were interviewed; participants in quantity part included elementary school teachers in the same city. In the qualitative section, the sample included 30 people who were selected by targeted sampling method, considering 5-15 people for each variable, and in quantitative one, 309 people were randomly selected via single-stage cluster. To collect data in the qualitative part, analysis of texts related to service learning, and semi-structured interview, and in the quantitative part of the study, the researcher-made questionnaire were used.

Findings: For data analysis in the qualitative part, content analysis and in quantitative, exploratory factor analysis were administered. The results showed that five factor categories affect the implementation of service learning in schools, which were respectively (based on factor load value) at the following: 1) professional and general competence factor of teachers, with 25 indicators and factor load of 0.694. 2) The atmosphere factor of School, with 8 indicators and operating load 0.680. 3) Curriculum development, with 34 indicators and factor load of 0.631. 4) Educational leadership, with 12 indicators and factor load of 0.670. 5) School relationship with community, with 7 indicators and operating load 0.646.

Conclusion: In general, in order to increase students' orientation of service learning, the competency and capability of teachers should be improved through new software methods and technology, furthermore, the school space should be appropriately enriched in terms of content, curriculum and educational programs to meet students' basic needs and to establish effective relation between the school, and influential factors in the society.

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1. Introduction

Learning is one of basic concepts and processes in education domain. It is so that we can assume learning as its main purpose. In recent decade, concept of learning has been world widely noticed by educational theorists who have presented so many theories in this regard (Kadivar, 2014). In many developed countries all over the world, there are teachers and learners who are going to give up lesson classes and their own communities to experience learning fresher, and then experience real relationship between education and everyday issues in their cities and states (Christine, Cress Peter, Collier Vicki L, 2005). Also, there are many educational psychologists who believe to organize learning conditions so that each learner should spend learning time based on his abilities (Hergenhahan & Olson, 2005). Therefore, it is true to consider quality of education as the crucial key in the latent competition among different countries. Accordingly, it is necessary to improve education and learning quality. In many traditional learning settings, teachers transform content through lecture, question & answer, and examination, while in some cases learners may complete a type of practice or practical experience to learn deeply. Overall, paying attention to experience is important in training centers. Training centers guide learners when they are applying their elite-oriented knowledge through reflection process in society (Christine, et al, 2005).

The present study is to explain the nature and components effective on one of the most practical learning theories termed Service Learning (SL). SL improves learner ability through active and collaborative learning, being busy in society, having critical thinking, and experiencing adversary situations in real life. In addition, SL brings an increase in learners' social responsibility, improvement in ethics, altruism, competency, and scientific knowledge (Wells & Grabert, 2004). It is believed that SL can effectively improve the above goals through standard classes comparing with other methods, specifically training. The use of this educational method as an innovation in training ranges widely from kindergarten to university. In this setting, society is regarded as a lab for learners who feel the needs of the society and learn how to connect what they learn in the class with what they experience in real world (Billig & Waterman, 2003).

Various studies such as Kang, Gray & Dovidio (2014), Lazonder & Harmsen (2016), Farrington (2013), Gregory, et al (2016) Gershenson, et al (2017) show that SL is assumed as a learning and training strategy which enriches learning experience and empowers social responsibility through combination of social services and curriculum planning. This model prepares a conceptual framework to perceive learning organic process (Prentice, Garcia, 2000). In addition, SL is developing in social parts which can make some real and everlasting changes in society. Kolb has explained important steps of SL in education process cycle. Major, Schmader (2018) believe that Concrete experience, Reflective observation, Abstract conceptualization, and Active experimentation are each inseparable part of SL which should be perceived by all organizations and institutes dealt with any way (Pinar, 2003). Therefore, as Moroney, Newman, & Osher (2018) state SL has presented a combination of experiential learning and a chance to present social services. Characteristics of SL are as following: 1. this method of learning has been positive, meaningful, and real for participants and makes a positive relation between teacher and learner 2. it encourages students to have collaborative experiences instead of competitive ones so that they improve their skills related to group work, social participation, and citizenship as well 3. Moreover, it aims at complex problems in complex settings rather than simplified problems one by one, and 4. Finally it increases dialogues between teacher and learner (Arkansas department of human sciences, 2016).

Nomi, Allensworth (2012) state that although service schools have many cases in common with others such as, educational and resource facilities, students and their economic status as well, but they are different in many other ways. This makes us think why it happens. We can mention many reasons for it, such as professional educational management, committed and specialized manpower, learning and teaching processes. Among all mentioned above, SL atmosphere ranks higher than the rest which needs to be studied more deeply. SL as a method for long-lasting learning can provide some opportunities for learners

to apply educational knowledge and skills obtained in real life settings in community. This strategy brings learner academic achievement, avoidance of traditional training, and increasing interaction between educational setting and community (Heravi, et al, 2011). Learners advance through active participation in social and organized experiences improving their individual and social skills, social responsibility, and problem solving abilities. This method creates everlasting learning, augments scientific skills, and prepares job opportunity. Many studies indicate that there are some advantages in the method such as putting theory, practice, and idea together, better perception of students' academic course and its relation with real world, expanding life skills, changing teacher's role as a facilitator...(Bodorkós & Pataki, 2009). Findings by Domville, Watson, Paula, Richardson, et al (2019) show that SL creates persistent learning in training and makes use of educational skills obtained in real settings, so it is better to mention some studies here briefly: Afkaneh, et al (2018) conducted a research aiming at recognizing and determining SL components, and presenting a SL model for universities and higher education institutes indicated that all basic categories and dimensions followed in this study, i.e., SL quality, leadership, learning, and customers' management are not in a desirable situation which fulfilling the cases mentioned can put it in a desirable conditions acting as a conceptual model for improving SL at universities. Gettris (2018) showed that this learning method leads to sustain active participation of students in society. He conducted it in a study titled effect, performance, and sustainability of SL in class aiming at advantages and disadvantages in SL in 3 areas, 1- Effect of exercises, 2- Performing exercises in class 3- Looking at sustainability and stability.

In a research by Rusa, Copaci, Soos (2015) titled effect of training online Service Learning on improving skills training in students, aiming at the effect of SL on improving students learning in the components of self-efficacy, mental well-being, attitude and civil skills depicted a positive outcome in students' attitude toward other cultures after participating in the course which caused them to respect and value cultural diversities. In addition, Shomer aiming at determining SL concept showed that SL is designable in two ways; one is based on school, the other on society, in which this method of learning has been introduced as a powerful and exciting educational innovation (Soykana, Gunduzb, Tezer, 2015). In research by Rostami, Zarafshani, Geravandi (2014) under the title of Service Learning: a modern approach in higher education system in agriculture, aiming at introducing SL in agriculture operating course, showed that SL can be practiced as an experimental learning method in other agriculture faculties. That is SL can pave the way for shaping positive attitude in students, integrating theory and practice, developing professional and relationship skills as well as increasing social responsibility, thinking orientation, and empowerment in students.

Also, Heravi Karimvi (2011) in a research which studied different effects and aspects of SL in the process of training nurses in Nursery and Midwifery Faculty of Shahed University in Tehran showed that fulfillment of SL is highly increasing in different universities which Nursery faculties ranked highest of all. Maiga & Westrom (2006) at the University Of Minnesota Crookston (UMC) showed that by working with the community, students gained a sense of civic responsibility, with an increased awareness of community problems. They gained new knowledge and benefited from the service provided. More than 85% of students indicated they had a positive experience with service-learning projects and a positive experience working with their social partners.

2. Methodology

The present study is applied one in term of aim, and descriptive survey in term of data collection which was implemented through mixed approach, exploratory categorization. In the qualitative part of research, content analysis was implemented. On the other hand, in addition to use of theoretical sources and studies, internal and external, in SL area 30 Education Office experts were interviewed. In quantity part of study, the population consisted of 1030 elementary teachers in Tehran. In the qualitative part of study, 30 individuals through targeted method, and considering 15 for each observed variable in quantity part, 309 subjects were determined through Cochran's formula with single-stage cluster random sampling. Having studied and analyzed texts related with SL in qualitative part, a semi-structured interview was implemented with 30 experts, from which 178 effective components were taken out, which finally after applying Delphi twice, 96 components remained which were used in the final SL questionnaire. The instrument was researcher-made one. The subjects were to choose the choice best fitted to the purpose of the SL study. The final SL questionnaires were handed in 309 teachers. For data analysis in qualitative part, Theme Analysis, and in quantitative part, Exploratory Factor Analysis was implemented. To analyze data, SPSS 21 and Smart PLs were carried out.

3. Findings

309 subjects participated in the research, from which 164 (52.4) males and 147 (47.6) were females. Their academic levels were as follow: 44 (14.2) as Graduate, 162 (52.2) as Bachelor, 103 (33.3) as Master of Arts. Analysis of research question: what are effective factors on SL? In order to determine components of SL, Explanatory Factor Analysis (Principal Component Analysis) was conducted. To use explanatory factor analysis, some general software's such as SPSS were applied. It is worth mentioning to observe some assumptions before running factor analysis:

1. Kaiser-Meyer-Olin (KMO) should be above .7 and more, preferably.
2. Bartlett's test of sphericity should be significant. We use Bartlett's test to ensure of proper data indicating that the correlations matrix which is regarded as basis for analysis does not equal zero.
3. Factor loading of subscales in component matrix and rotating matrix should be at least .35 and more, preferably.
4. Each of components should show at least 3 questions.
5. Components should be sufficiently validated. First order confirmatory factor analysis for 96-item questionnaire of service learning, KMO values and Bartlett's test of sphericity are shown in table 1.

Table1. KMO values and the outputs of Bartlett's test of sphericity for 96-item questionnaire of service learning

KMO Index	.918	
Bartlett's test of sphericity	Chi Square	50882.558
	Degree of Freedom	4560
	significance level	.000

As it is shown in table 1, KMO equals.918 which is clearly near to 1. Moreover, significance level in Bartlett's test of sphericity is zero, which is lower than .05, showing statistically significant. Therefore, based on the two criterions above, we can conclude that performing factor analysis based on correlation matrix obtained from the sample is justified. All in all, after performing factor analysis and varimax rotation technique for simplifying components, it was discovered that the best factor solution includes five factors. Therefore, 5 factors out of 96 items were taken out as the main factors. It is worth mentioning that the rotated values for six times, and convergence after these repetitions were earned. The factors extracted with factor loading of each item on the related factor along with variance rate which each factor explains are as follow:

Table2. Extracted factors out of Service Learning and related factor load after rotation

Factors	Item	Factor loading	Variance value
Factor 1 (Curriculum Development)	75. flexibility of curriculum development	.889	27.205
	79. responding the needs of society and determining the outcomes	.876	
	84. using different forms of evaluation(service-based evaluation)	.872	
	65. adequate familiarity with social services	.870	
	72. emphasizing familiarity with community culture	.858	
	70. integrating practical experiences with class activities	.852	
	60. direct bonding of curriculum development with students personality as a practical task in SL	.839	
	52. getting students involved in challenging problems (creating cognitive challenge in students)	.837	
	76. educating citizens (citizenship rights and responsibilities) as a part of curriculum development	.835	
	69. acquiring knowledge and new special educational skills in students	.829	
	80. including project in curriculum	.826	
	68. meaningful duties and tasks presented	.824	
	73. paying attention to individual and cultural differences of students	.817	
	51. considering scientific, social, professional aims, and life skills simultaneously in curriculum development	.816	
	71. emphasis on acquiring diverse and various experiences in curriculum	.814	
	81. allocating a special aim to each project and student	.806	
	67. being responsible toward society	.805	
	87. designing and performing a project with certain standards beside the aged	.802	
	88. designing a project to show respect to the legends of resistance and excessive generosity like stuntmen	.801	
	82. emphasizing students' ideas and points of view in discussions	.801	
	85. giving individual and group feedback	.790	
	66. adequate supervision in performing curriculum planning	.788	
	58. emphasis on curriculum planning and academic as well, related to SL	.776	
	77. helping students to recognize and fulfill school and society needs	.766	
	61. connecting educational content with determined standards	.746	
	86. emphasis on giving service to society in curriculum planning	.717	
	50. making connection between various lessons and community (practicing concepts in real problem solving)	.700	
	64. perfect readiness in all aspects of their work (activity)	.697	
	63. creating relation, interaction, and accompany with society through service projects	.688	
	83. programs to be learner-centered	.678	
	56. emphasizing on students' deeply thinking, pre/ in and post services	.671	
	59. using concepts, content, and skills related to courses at universities and students' engagement in building their own knowledge	.671	
	62. possibility of choosing, designing, performing, evaluating project services by student himself	.668	
	57. emphasizing academic and curriculum planning related to SL	.655	
Factor 2 (General and Professional Capacities)	12. emphasis on pleasant learning	.847	19.128
	6. studying students individually to discover their interests and talents	.819	
	20. emphasizing student ethical improvement and development	.801	
	17. presenting adequate knowledge on community and around	.797	
	21. strengthening students in teamwork through group learning	.796	
	19. stress on knowledge in class in real solving problems for individuals	.795	

and society		
Factor 3 (educational Leadership)	7. designing projects considering interests and abilities of students	.795
	5. teacher's use of individual and group learning methods	.784
	2. having ability to connect educational contents to real needs of society	.782
	15. stress on real needs of individuals and society in teaching	.781
	3. the ability to design practical activities for students to fulfill community needs	.779
	23. formative and descriptive evaluation in a systematic process	.777
	18. enrichment of learning in class through diversifying issues	.776
	25. Feedbacks are based on the processes used by students.	.775
	4. The ability to help students think deeply about what they have learned from society.	.768
	24. using several methods in order to confirm, encourage, and evaluate services provided by the student	.764
	9. stress on acquiring knowledge and modern educational skills by learner	.762
	26. having discussion and analysis in class, and comparing the experiences obtained with available theories	.731
	8. designing and executing extracurricular activities for students	.730
	27. a teaching method synthesizing social services with curriculum planning based on learning	.727
	1. teacher's project-management skill	.723
	13. sensitizing students to social challenges	.705
	22. assessing achievement rate based on given standards and documents	.694
	28. collaborative training and helping students to perceive (individual) differences	.667
	16. giving different responsibilities to students within educational activities	.586
	42. energy, enthusiasm, and motivation of managers and staff in providing services	.835
Factor 4 (School Atmosphere)	40. improving and promoting moral and spiritual reasoning capacity of self and staff	.827
	38. designing a motivation system proportional to services for prominent students and staff	.821
	39. serving leadership style of manager and teacher	.818
	41. sensitivity to the wants and needs of the people responsible in school and society	.818
	37. awareness of school management about learning principles of SL	.791
	46. educational planning	.765
	43. ability to recognize educational needs related to SL	.755
	44. ability to prepare aims related to social services and SL	.750
	45. developing school staff professionally in SL	.690
	49. considering clear educational purposes in service projects	.689
Factor 5	48. designing and performing educational programs in use of technologies to provide society with services	.688
	35. Effect of SL on school environment, structure, and culture when it is considered an important place.	.857
	31. promoting relationship skills of students	.843
	36. more and deeper dialogues about learning and training at school	.783
	34. creating positive atmosphere at school	.778
	29. glorifying students' achievements	.755
	30. stress on students' responsibilities	.755
Factor 5	32. providing the learners with success in different ways	.698
	33. emphasis on understanding cultural differences and respecting it	.653
Factor 5	90. common and mutual cooperation with society	.799

8. 483

8.483

(Relation with School and Society)	95. incorporation of society members in collecting curriculum planning	.784
	96. planning including managers of school districts, lawyer, project conforming to the insurance laws, rules, and coverage	.760
	94. stress on purposeful activities and settings for social interactions	.750
	92. friendly cooperation of school with external partners	.743
	93. recognizing beneficiaries in society	.710
	91. common and mutual cooperation with society	.672

As shown in table 3. Five components were recognized as dimensions of SL in elementary schools in Tehran. The components obtained, are as follow:

Table3. Results of factors, number and components affecting service-oriented learning

Dimensions	Number of effective components	Component No.	factor loading
General & Professional Competencies	25	1-3-4-5-6-7-8-9-12-13-15-16-17-18-20-21-22-23-24-25-26-27-28-	19.128
School Atmosphere	8	29-30-31-32-33-34-35-36	8.483
Educational Leadership	12	37-38-39-40-41-42-43-44-45-46-47-49	10.946
Curriculum Development	34	50-51-52-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-79-80-81-82-83-84-85-86-87-88	27.205
Relationship with School and Society	7	90-91-92-93-94-95-96	6.741

1. The first dimension consists of 34 indicators called “curriculum development”, devoting 27.205 factor load rate to it. In this dimension, the most weight goes to indicator (No.75. flexibility in curriculum development) weighting .889 and the least factor weight goes to indicator (No.57. emphasizing academic and curriculum planning related to SL) weighting .655.

2. The second dimension consists of 25 indicators called “general and professional capacities”, devoting 19.128 factor load rate to it. In this dimension, the most weight goes to indicator (emphasis on pleasant learning) weighting .889 and the least factor weight goes to indicator (giving different responsibilities to students within educational activities) weighting .586.

3. The third dimension consists of 12 indicators called “leadership” dimension, devoting 10.946 factor load rate to it. In this dimension, the most weight goes to indicator (energy, enthusiasm, and motivation of managers and staff in providing services) weighting .835 and the least factor weight goes to indicator (designing and performing educational programs in use of technologies to provide society with services) weighting .688.

4. The fourth dimension consists of 7 indicators called “school atmosphere” dimension, devoting 8.483 factor load rate to it. In this dimension, the most weight goes to indicator (effect of SL on school environment, structure, and culture when it is considered an important place) weighting .857 and the least factor weight goes to indicator (emphasis on understanding cultural differences and respecting it) weighting .653.

5. The fifth dimension consists of 7 indicators called “relationship with School and Society” dimension, devoting 6.741 factor load rate to it. In this dimension, the most weight goes to indicator (common and mutual cooperation with society) weighting .799 and the least factor weight goes to indicator (sharing and performing all service learning experiences from the start of course to the end) weighting .672.

4. Discussion

The use of this educational method as an innovation in training ranges widely from kindergarten to university. In this setting, society is considered as a lab for learners who feel the needs of the society and learn how to connect what they learn in the class with what they experience in real world. This method creates an interaction between educational system and the environment around learning how to combine theory and practice as an important outcome. However, in this regard, review of literature in other

countries were conducted as follow: in curriculum development dimension there are national standard document by Meen (2018), Kirby et al. (2018), in general and professional competencies there are Hoveida, et al. (2018), Rusa, Copaci, Soos (2015), Higgins (2012), in leadership dimension there are Nicolle et al (2010), and finally in school environment, Konorth (2008) have conducted studies to realize effective factors on service learning. However, no comprehensive research has been accomplished to examine all effective dimensions and components on service learning. Therefore, the present research aims at examining effective factors on service learning in elementary schools in Tehran. Effective dimensions and components mentioned in the study increases the scientific importance of service learning. For it shows that service learning is a scientific approach with a rich review of literature and experimental evidences from which we can use to develop the teachers' capacities and capabilities. Regarding the results in table 8, for the present time, the mean of different factors are as follow from the most: school relation with society (1.97), school environment (1.91), general and professional competencies (1.86), curriculum development (1.84), leadership (1.81), where the lowest mean goes to leadership (1.81), while the highest goes to school relation with school (1.97).

Discussing school relation with society dimension, it is worth considering education system, specifically, school as the most important member and part of society body and as a pumping heart for it, which if it is under risk, all other parts will be ruined and injured, and conversely, its promotion will actualize different parts of economics, society, and culture. Studying other countries destiny and their uprising guides us to the important role of this structure in promoting talents in other parts of these countries. This structure can adjust material and spiritual lives to educate moral and spiritual characteristics necessary for today's life. According to service learning approach, which encourages learners to participate in civil gatherings, learning happens through interacting with real world problems, knowledge formulation occurs while the learner performs critically and really reflecting theoretical knowledge, which can fulfill the main role of

Education structure, on the other hand, serving leadership emphasizes providing others with services and prefers others' priorities to his own; Individuals enjoy more intelligence, power to choose, and health becoming serving leaders and try to meet others' emotional, spiritual, and physical needs. Teacher is considered as the most sensitive and important components in education systems; it is because success or failure in evolving educational systems depend on teachers' capabilities and capacities as the main plan executors in real settings. In service method, we can examine the way different kinds of trainings about family life and society one affect students through combining teachers' professional experience and strategies for this type of learning to apply them in solving social problems. Furthermore, this method forms the positive attitude in people, combines theory and practice, develops relationship and professional skills, and it promotes social responsibilities, thinking orientation, and empowerment in individuals. Finally, using project of service learning leads to promoting the quality of education, increasing efficiency in service learning, making education process flexible, and engaging the learner in learning.

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