We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,300

Open access books available

172,000

International authors and editors

190M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities

WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com

Development of Leadership Competencies During Studies at an Institution of Higher Education: Students' Opinion

Aelita Skarbalienė

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/65269>

Abstract

In order for more professionals to take the role of leaders, the systematic attitude to this question is necessary and one of the aspects is that it is needed to begin preparing students for the leadership at a higher school. Although there are many facts about the importance of developing of leadership competences at higher schools, there is a lack of research on the subject of students' opinion about leadership development in Lithuania, as well as in other countries. That is why the research considering this issue is relevant practically and quite new scientifically. The aim of this study is to reveal students' opinion about developing leadership competences during the studies at an institution of higher education. For this purpose, in the year 2015 and 2016 the research involving 857 last year students from different Lithuanian higher education institutions was fulfilled. The research has shown that the demand of students to develop leadership competences is significantly high and it is realized only partially. The research also confirmed the idea that the development of the leadership competencies could not be based on only one subject, but the integrated strategy needs to be applied. Based on the findings, some recommendations for higher education institutions were formulated as well.

Keywords: leadership, leadership development, leadership education, higher education, students' opinion

1. Introduction

In recent decade, in scientific literature, the significance of the leadership for efficiency and progress of different organizations and all society has been especially emphasized [1, 2]. For

a long time, decent results and success were related to the efficient leadership of the high-level managers [3–5]. However, the idea of parallel (or shared) leadership which emerged under the influence of cognitive and social psychology (firstly, in studies of business and politics leadership, but later applied also in health sciences, public administration, education, etc.), which emphasizes the leadership as a process in which every person in an organization as a leader and formal managers increases work quality and improves results of an organization all together by mutual work [6], has revealed the significance of every person as a leader. In the parallel leadership process, responsibility is shared in two ways: managers are responsible for strategic leadership, whereas other persons who take non-formal leadership role take responsibility for the leadership of organizational process and activity [6]. This idea about leadership involves a shared responsibility for creating a better world in which to live and work which manifests in a passion to engage others in bringing about purposeful change [7].

Yet in 1991, it was said that if society wants more professionals to assume the role of a leader, the systematic approach to this matter is needed and arguments that future professionals has to begin develop their leadership competences, while they are students at the institutions of higher education, i.e., universities and colleges [8].

Higher education plays a particularly large role in creating and shaping the quality of leadership in today's society, and the leadership is one of the most crucial results in higher education [9]. It has been determined by scientific researches that each person has the leadership potential and students not only may enhance, but actually enhance their leadership competences during the studying at the university or college [10, 11]. When leadership abilities improve, the social activeness of young people increases, energetic and positive character traits develop, and the participation in academic activity as well as in the activity of student organizations increases [12–14].

It has been noticed that in recent years, more and more attention has been paid for the issue concerning how students are trained for leadership; at the same time, it has been searched for most effective methods and activities [15–21].

However, in research works the lack of students' own opinion on the development of leadership competencies has been felt, i.e., there is the lack of data on how students themselves feel the need to develop leadership competencies at higher school, to what extent this demand has been realized and how students prefer to develop their leadership competences [22–24].

Although there are studies exploring leadership development at the universities and colleges done, most often they explore either students who study nature sciences [19, 25], students of social sciences, or students of humanities. And that might be the reason hindering effective implementation of a leadership development policy at the contemporary universities and colleges. Many higher education institutions across the Europe are multidisciplinary. Faculties of Social sciences, Humanities, Mathematics and STEM, Computer sciences, Maritime, etc., are held there. And the vision for students' leadership development is one for all. In order to create integrated vision for effective development of leadership competences that would be consistent with the needs of students from different faculties, systematic study is needed. The display of students' needs and preferences on leadership development is important because it could

help to display factors for the improvement of an object researched as well as create possibilities to purposefully act, fulfill expedient intervention into the processes of development of leadership competencies in order to seek to improve them, and achieve better results in development of students' leadership competencies.

Due to practical relevance, taking into account the lack of scientific research, the issue of students' opinion about development of leadership competencies during studies at an institution of higher education has been chosen for this study.

The aim of this study is to reveal students' opinion about developing leadership competences during the studies at an institution of higher education.

2. Integrating leadership development to the curriculum. Why is it important for students?

Well-trained professionals need disciplinary knowledge and skills, but also competencies that prepare them to lead in an increasingly complex world [25], competences that prepare them to be influential in their professions and in the society, and competences that prepare them to create added value of the professional activities. These are the leadership competences.

Actually, students when entering universities and colleges have a narrow view of leadership [25]. Usually, they think that leadership is based on the formal organizational position and formal authority. But as they deepen their professional competences during the study years, they can get wider view of what leadership is and how it works as well and of course realize that formal authority is not the only one the key to successful leadership. Ability to influence others is not less important. Scientifically trained people are called to lead in some points of their lives—in professional and/or social lives—and should be prepared to do that [25].

It needs to be taken into an account that not only scientists argue the importance of development of students' leadership competences. This approach is shared by some of the higher education institutions as well. For example, some universities recognize the importance of leadership, include leadership development to the objectives of the institution, encourage students to participate in the leadership, and with it encourage the growth of the society and its welfare [26, 27]. Recently, the leadership training in the study programs of higher schools as well as in non-formal activities has become a tendency and is recognized as substantial regardless of what speciality students are going to acquire [28, 29].

Though person who leads in a professional or social life with or without formal leadership title should develop and strengthen his or her leadership competences continuously, there is one aspect why it is so important during the years at the higher school. According to Erik Erikson and his theory of psychosocial development stages, most of the students at the university are in their late adolescence—early adulthood age stage. In each stage, the person confronts, and hopefully masters, new challenges. The challenge of late adolescence—early adulthood age stage—is to create own identity. Thus, an institution of higher education has

the potential to help young person discover and foster not only his or her professional, but leader's identity as well.

3. Integrating leadership development to the curriculum: activities

Recently, the leadership training in the study programs of higher schools as well as in non-formal activities has become a tendency and is recognized as substantial regardless of what profession students are going to acquire [28, 29]. Thus, contemporary higher schools face the problem of how to help students to acquire and develop their leadership competencies during the study at an institution.

After the importance of leadership was emphasized, many higher schools included special leadership study subject to their educational curricula. But leadership researchers say that students' leadership skills and competences have not changed much due to that. It is mainly explained by the large gap between leadership theory and practice, i.e., students who get theoretical knowledge of leadership do not know how to apply this knowledge in practice [30, 31]. It is also denoted that the training of leadership competencies is a complex process since it works with the development and perfection of a personality [31]. Convictions and experiences of students have strong influence on the quality of this process [32, 33], whereas each student has frequently an individual understanding of the leadership as well as different competencies and abilities necessary for the expression of leadership [31]. It is problematic to find the strategy that would satisfy the needs and abilities of all students.

Leadership researchers notice that there is a lack of empirical research for the development of leadership competences at higher schools [22, 34]. Still, some researches find the tendency of growth of that kind of researches and studies. For example, J.P. Dugan and S.R. Komives revealed that the main tendencies and trends of leadership development at the higher school were formed over the past 15 years. This formation was influenced by the many reasons, for instance, leadership theories change from the traits model to relations-based model, the emphasizing of team-work principles, ideas of voluntary activities, establishing of socially active communities, professionalization of leadership trainers and educators, dissemination of leadership ideas, etc. [22].

Three strategies for effective development of the leadership competences at the higher school can be listed after review of many studies on this topic was done:

1. involvement in various activities for the development of the leadership competencies into the curricula;
2. the promotion in practical activities; and
3. non-formal training of the leadership competencies.

There are various ideas on how the activities training the leadership competencies could be involved into formal education programs. For instance, some authors argue that the leadership study subject or program is necessary at higher school [19, 22, 34, 35]. This is argued by the

idea that students firstly have to get familiar with the theory of leadership and also understand that leadership can be developed, educated, and trained. It is considered that leadership study subject could provide basic ideas about leadership and its theories, and also help students understand what leadership is needed for, what moral values leader should follow, and what skills need to be developed for effective leadership. It is noted that such study subject should be taught during the first study years.

But some authors replicate this opinion and argue that leadership cannot be developed with only one study subject. Corresponding activities should be involved into other study subjects as well [19, 22, 35]. Students need to be engaged in activities integrated into curricula that promote not only the development of leadership competences but—and that is very important—leader's behavior has to be trained [25]. The debate on social and cultural issues could contribute to the development of some of the leadership competencies in higher school. Discussions on various topics could help students to develop communication skills and develop a mind mapping. Debates also help to learn reason, the ideas, justify different opinions, evaluate the arguments, and seek a compromise [22, 34, 36]. It has to be mentioned that the activities have to be integrated in a way that directly relates to the practice [25].

Similarly, the importance of application of active teaching methods is emphasized [36–39]. It is quite effective when active teaching methods are applied for teamwork. Teamwork should be organized in the way that a greater number of students would have an opportunity to become a team leader in different activities for different tasks and would have an opportunity to assess the importance of leadership and responsibility [22, 34].

Another leadership development strategy is practical actions. These can be practical study activities during the lectures, study practice (practical work experience), internships, volunteer work in the communities, etc. Practical activities are important, because students get the opportunity to be leaders in action. It is based on the statement that students develop leadership by acting in it. Practical activities help students to experience taking the responsibility, to learn various principles of building the team and motivate team members to perform the tasks, to learn building the vision and strategy, trying different styles of leadership in action, and to compare leading in different situations and contexts. In this way, students develop their social and organizational skills, learn planning, and realize the importance of leader's moral values and the importance of teamwork [19, 22, 34, 35, 39]. Practical activities help students to bring theoretical professional knowledge to the real life and apply them purposefully in practical activities [40]. Therefore, it is important to ensure the interaction of theoretical and practical students' training because that is the basis of future professional's competencies.

In the debates about the practical activities, it is proposed to involve mentors in developing of leadership competences of students. In our case, older students, professors, supervisors, and other persons who have greater experience could take the mentor's role. Researches reveal that mentors influence students' leadership positively. Mentors motivate student to get involve into academic, sport, and artistic activities more active. So students get the opportunity to develop new skills, learn new behavior, and understand the specific of the chosen profession [22, 35, 39, 41].

It is indicated that leadership competences can be developed effectively not only by involving activities into formal education process, but also when students get involved into non-formal education activities. Participation in students' and youth organizations helps students to understand the importance and meaning of working in a team. It is suggested to choose the organizations according to student's own preferences and interests; learn its vision and goals; try to combine own ambitions with organization's objectives; and also develop skills in teamwork [19, 22]. And formal leaders of student and youth organizations more frequently have stronger leadership abilities and more often have the features characteristic of leaders [22].

And there is one more idea of non-formal leadership development founded and valued by the researchers. Cooperation between higher and high schools makes strong framework for students' leadership. Person's experience from the high school plays important role when he or she comes to university or college. If person understands leadership nature and importance as early as possible in the high school, the development of his or her leadership competencies is much more efficient. That is why it is proposed to higher schools to build cooperation with the high schools, run joint projects and organize seminars and conferences [22, 34].

Regardless of what ideas of leadership development are raised, it is necessary to build such an education environment that would be favorable for effective students' leadership development. This includes the organization of the study process, the active involvement of students, as well as the professionalism of teachers. If teachers are leaders, if they know leadership theory and practice and are able to motivate, students have much better learning outcomes and stronger leadership competencies as well. It is also important for students to feel safe in a moral way and be not afraid to express their points of view. This makes positive effect for the development of their leadership opinion [19, 22, 34]. Besides, (self)-evaluation of the leadership competencies of students is significant [22, 34]. This could help to realize one's positive and negative features, systemize abilities and knowledge, and evaluate the lack of what knowledge and abilities is present.

4. Integrating leadership development to the curriculum: the research of students' opinion

After theoretical literature analysis and justification of the assumption that it is appropriate to start educate people for leadership yet in a higher education institution, it was decided to carry out an empirical research and to determine the situation regarding the leadership development at the universities and colleges.

Scientific problem of this research has been detailed by raising the following questions:

1. What is the demand of students to develop leadership competencies and what is the realization of it while studying at higher school?
2. What are the most preferred ways for effective leadership development?

Mixed method is used for the research [42]. This means that both quantitative and qualitative data are used to reveal the scientific problem of the study. Priority neither to the quantitative nor qualitative data is given. It is believed that both kinds of data complement each other to give the better results.

Quantitative data are gathered via survey using questionnaires based on the model presented below in **Figure 1**.

Figure 1. Research model on demand of development of leadership competencies and its realization at higher school.

Random sample of Lithuanian higher education institution was done, and senior undergraduate students were invited to participate in the survey. Eight hundred and fifty-seven questionnaires were filled-in by students who are studying nature sciences, social sciences, and humanities and sent back to the researcher.

The demand of development of leadership competencies at higher school was evaluated by analyzing percentage distribution of the answers; differences of demand expression were evaluated by using Friedman's criterion, whereas differences of demand expression according to sex, type of higher school, scientific field, and formal leadership position demand were evaluated using Mann-Whitney test. The realization of demand to develop leadership competencies was analyzed by evaluating percentage distribution of answers, and differences of respondents' demands according to their sex, higher school type, scientific field, and intention to occupy leading work positions in the future were evaluated by using Chi-square test and Mann-Whitney test.

Qualitative data collection is intended to gather information about activities preferred for effective leadership development. Twenty students participated in two sessions of focus group interviews to gather qualitative data. Additionally, 53 students sent their feedback essays and explained their own experience about leadership development at the university/college. Content analysis was used when analyzing and interpreting the data.

4.1. Students' demand to develop leadership competencies at higher school

When analyzing students' responses (see **Table 1**), it is clear that students want to develop their leadership competencies. Majority of students marked that they want higher school to help them learn how to be a leader. Major part of the respondents expressed the willingness to have a special study subject devoted to development of leadership competences and students would like that each study subject would help them in leadership development as well. Only minor part of students thinks that the education of leadership competencies is their own concern and higher school should not care about it.

Demand expression	$\bar{x}$	Min	Max	SD	Evaluation of demand expression (%)		
					Absent	Unclear	Present
Willingness that higher school would help to learn how to be a leader	5.27	1	6	0.674	7.30	29.30	63.40
Willingness to have a separate study subject devoted to development of leadership competencies	5.36	1	6	0.566	9.30	41.60	49.10
Willingness that each study subject would help to develop leadership competencies	4.93	1	6	0.964	3.30	44.80	51.80
Development of leadership competencies is a personal concern of each person; accordingly, higher school should not care about that	2.57	1	6	1.458	44.00	38.90	17.20

Table 1. Students' demand to develop leadership competences.

After the comparison of responses given by females and males students, it has emerged that their demand to develop the leadership competencies at higher school partly differs (see **Table 2**). Females (comparing with males) have stronger willingness that higher school would help them to develop the leadership competencies, whereas males more often think that the development of leadership competencies is their own concern and higher school should not really care about it. Females as well as males' willingness to have a separate special study subject devoted to the education of leadership competencies and to develop the leadership competencies through other study subjects is similar.

The demand to develop the leadership competencies of students from different scientific fields does not differ (see **Table 2**). It does not really matter if young person study mathematics, chemistry, IT, social sciences, or humanities; most of the respondents expressed the willingness that higher school would help them to learn how to be a leader. They would like to learn leadership from the leadership study subject and also would like every study subject to help them to develop leadership competencies.

Although demand to develop the leadership competencies at higher school is similar, both of those students who would like to occupy leading (formal) work positions in the future and of those who would not like, still those students who have the formal leadership demand express stronger demand to have a separate study subject at higher school devoted specially for this

aim (see **Table 2**). However, students who do not have the formal leadership demand would like more to develop the leadership competencies while studying each subject.

Demands	Sex		Scientific field				Formal leadership demand		
	Other indicators	Average of ranks		Other indicators	Average of ranks		Other indicators	Average of ranks	
		Females	Males		Nature sciences	Social sciences and Humanities		Would like to occupy leading work positions	Would not like to occupy leading positions
Willingness that higher school would help to learn how to be a leader	U = 7859 z = -2.55 p = 0.011 r = 0.14	172.80	142.79	U = 10,213 z = -0.45 p = 0.652 r = -0.02	164.69	169.74	U = 5397 z = -1.58 p = 0.112 r = -0.09	168.06	145.16
Willingness to have a separate studies subject devoted to education of leadership competencies	U = 8625 z = -1.19 p = 0.232 r = -0.06	163.30	177.84	U = 10,147 z = -0.58 p = 0.557 r = -0.03	168.25	166.49	U = 5026 z = -0.85 p = 0.024 r = -0.05	169.93	136.73
Willingness that studying of each subject would help to educate leadership competencies	U = 8109 z = -1.87 p = 0.061 r = -0.10	170.45	148.08	U = 8386 z = -2.92 p = 0.503 r = -0.16	182.87	189.99	U = 4422 z = -3.53 p = 0.001 r = -0.20	158.07	205.99
Education of leadership competencies is a personal concern of each individual; that's why higher school should not care about it.	U = 7186 z = -3.19 p = 0.001 r = -0.17	157.75	197.55	U = 8825 z = -2.33 p = 0.089 r = -0.13	173.62	169.12	U = 5295 z = -1.52 p = 0.084 r = -0.08	168.98	142.85

Table 2. Students' demand to develop leadership competences.

4.2. Realization of students' demand to develop the leadership competencies at higher schools

Students' demand to develop the leadership competencies at higher school is realized partially. It is possible to judge as 58.5% of respondents signified that they acquired the leadership

competencies during studies at higher school. Differences according to sex and type of higher school are not statistically significant (see **Table 3**). However, statistically significant difference was estimated in one case: those students, who would like to be formal leaders, comparing with those who do not endeavor to reach it, feel that they have developed leadership competencies more at higher school.

While evaluating the leadership competencies acquired during studies at higher school, majority of respondents (75.2%) evaluated them as 'good' or 'rather good'. In this case, none of differences according to sex and the scientific field have not been determined. However, it has emerged that those students who would like to occupy formal leading work positions, in comparison with those who would not, evaluate better the leadership competencies acquired at higher school.

Respondent characteristics	Respondent groups	Yes (%)	No (%)	χ^2	df	p
Sex	Females	59.98	40.02	0.157	1	0.695
	Males	58.58	41.42			
Scientific field	Nature sciences	63.43	36.57	0.577	1	0.456
	Social sciences and Humanities	57.64	42.36			
Formal leadership demand	Would like to be leaders in future	61.52	38.48	3.754	1	0.047
	Would not like to be leaders in future	47.35	52.65			

Table 3. Acquisition of leadership competencies at higher school.

However, only one sixth (14.8%) of respondent had a special subject on leadership studies. Students from social sciences and humanities more often stated that they studied this subject ($\chi^2 = 11.823$; $df = 1$, $p = 0.001$). Besides this special studies subject, in respondents' opinion, subjects such as psychology, organizational behavior, human resources, and organization management helped to develop their leadership competencies.

4.3. Preferred activities for leadership development at the higher school

Qualitative research results lead to the insights that the development of leadership competencies receives quite attention in the study programs of higher education institutions of Lithuania. The respondents' replies allow discerning a systematic leadership competencies development model through various activities: participating in the lectures delivered by the university teachers and experts practitioners, workshops/seminars, study practice, students' scientific conferences, university projects, outings to various institutions, activities of students' organizations, reading study-related literature, taking individual consultations with teachers, individually performing practical tasks, sharing learning experience with other students, and performing study-related tasks collaboratively.

But, according to the research participants, the special leadership subject is still rare in Lithuania. Still, students would like to have such a subject. This opinion was reasoned by claiming that students would like to get acquainted with leadership theory as well as realize how leadership could be developed. Students would like leadership study subject to provide fundamental knowledge about leadership theory and practice, and knowledge concerning

what leadership is necessary for, what value should leaders' activities be based on, what leadership styles are, and how they enable to act in one or another situation. Students also expressed willingness to learn leader's behavior aspects. They would like to learn the effective speaking, negotiating professionally, and not only learn how to manage stress, but how leader can help others (i.e., team members and followers) to manage stress in difficult situations.

The research helped to identify a unique role of practice in developing leadership competencies – namely this activity of studies was evaluated by the respondents as the most helpful activity in developing various leadership competencies during studies. It turned out that participation in the projects implemented at the university added the least to the development of leadership competencies. However, this is possibly due to the fact that students are simply too little engaged in such activities.

The research also revealed that different activities during studies have a different impact on the development of separate leadership competencies. The communication and teamwork competencies are developed in various activities the most, while the vision/goal setting competencies are developed the least.

Besides the different activities, students stressed the importance of teachers' professionalism. The participants of the research said that they see teacher as a model of the profession. Teachers' knowledge, passion, and leadership are transmitted to students.

5. Conclusions

1. The issue of development of students' leadership competences at the higher school started a couple of decades before. But there are only few years when it is analyzed actively. Both researchers and the institutions of higher education suggest agree on necessity of development of students' leadership competences and support such a learning and training by using strategies of formal and non-formal education.

Though the strategies of development of the leadership competencies at different higher schools are basically similar and none of the ideas of training of the leadership competencies is considered as superior than others, integrated strategy is seen as the most effective way for leadership development.

2. Although more than half of students, who participated in the research, stated that they acquired the leadership competencies at higher school, there are more of those who would like to acquire such competencies. Only a little part of students (17.2%) thinks that the education of leadership competencies is their own concern and, consequently, higher school should not care about it. The rest of students more or less state that they would like higher school help them to develop the leadership competencies.

Comparing answers of students from universities and colleges, it has emerged that their demand to educate the leadership competencies differs partially. College students expect support from higher schools and wish that each subject studies would help them to educate

the leadership competencies. However, the demand realization of the education of leadership competencies in both student groups statistically does not differ significantly.

Research results helped to identify the students' group that separates from other by its demand to educate the leadership competencies and realization of this demand; these are students who in future would like to occupy leading work positions. Such students feel themselves as being acquired the leadership competencies at higher school and evaluate them better. Consequently, it is possible to consider that their demand to develop the leadership competencies is more realized than of those students who in future are not planning to occupy leading work position. However, these students also have stronger demand to have a special study subject devoted to the leadership competencies at higher school.

The conclusions of exploratory research provide useful information about the situation concerning development of leadership competencies at contemporary Lithuanian higher education. As (1) Lithuania is modern country, facing the same problems and challenges as other modern countries do, and (2) the research had a big sample and was fulfilled nationwide, the results and insights of this research are significant and relevant not only in Lithuania, but can be taken into an account in other modern countries as well.

3. The idea of integrated strategy for effective leadership development at the institutions of higher education has been reasoned in the theoretical part of this study, and students' opinion about it was revealed together with the evaluation of the importance of various activities and usefulness of tasks for development of leadership competencies.

The research results have revealed the special significance of practical activities and the importance of it to the development of leadership competencies.

Due to the insights occurred from the research results, it becomes possible to form a few recommendations for the higher education institutions:

- According to contemporary and modern study program forming principles oriented to the education and development of competencies, it is recommended to prepare and offer students special subjects of leadership studies. The subjects should provide fundamental theoretical knowledge about leadership theory;
- After the theoretical and empirical reasoning of the significance of applying the integrated strategy for effective leadership development, it is recommended to include various activities for leadership development to the other study subjects as well;
- After research results revealed the importance of teachers' professionalism and teachers' leadership competencies, it is recommended to the institutions of higher education pay much attention to the qualification and professionalism of teachers;
- After the research has revealed the significance of practical activities for the development of leadership competencies, it is necessary to add different practical activities for the study process.

Author details

Aelita Skarbalienė

Address all correspondence to: aelita.skarbaliene@gmail.com

Klaipėda University, Klaipėda, Lithuania

References

- [1] Fullan M. *Leading in a Culture of Change*. San Francisco, CA: Jossey-Bass; 2001.
- [2] Day C., Harris A. Teacher leadership, reflective practice and school improvement. In: *International Handbook of Educational Administration*. The Netherlands: Kluwer; 2003.
- [3] Edmonds R. Effective schools for the urban poor. *Educational Leadership*. 1979; 37(1): 15–27.
- [4] Hallinger P., Murphy J. Assessing the instructional management behavior of principals. *Elementary School Journal*. 1985; 86(2):217–248.
- [5] Murphy P. J. Reculturing the profession of educational leadership: New blueprints. *Yearbook of the National Society for the Study of Education*. 2002; 101(1):65–82.
- [6] Crowther F., Kaagan S., Ferguson M., Hann L. *Developing Teacher Leaders: How Teacher Leadership Enhances School Success*. Thousand Oaks, CA: Corwin Press; 2002.
- [7] Polk D. M. Forces for positive change: Preparing leaders for the 21st century in an undergraduate honors program. *Journal of Leadership Education*. 2016; 13(2):140–151.
- [8] Gehrke N. *Developing Teacher Leadership Skills*. ERIC Digest. 1991; <http://www.eric.ed.gov>
- [9] Astin A. W., Astin H. S. *Leadership Reconsidered: Engaging Higher Education in Social Change*. Battle Creek, MI: W. K. Kellogg Foundation; 2000.
- [10] Zimmerman-Oster K., Burkhardt J. *Leadership in the Making: Impact and Insights from Leadership Development Programs in US Colleges and Universities*. Battle Creek, MI: W. K. Kellogg Foundation; 1999.
- [11] Pascarella E. T., Terenzini P. T. *How College Affects Students: A Third Decade of Research*. San Francisco, CA: Jossey-Bass; 2005.
- [12] Fertman C. I., Van Linden J. A. Character education for developing youth leadership. *Education Digest*. 1999; 65(4):11–16.
- [13] Benson P., Saito R. *The Scientific Foundations of Youth Development*. Minneapolis: Search Institute; 2000.

- [14] Komives S. R., Owen J. E., Longerbeam S., Mainella F. C., Osteen L. Developing a leadership identity: A grounded theory. *Journal of College Student Development*. 2005; 6:593–611.
- [15] Getz Ch. Teaching leadership as exploring sacred space. *Educational Action Research*. 2009; 17(3):447–461.
- [16] Glatter R. Wisdom and bus schedules: developing school leadership. *School Leadership & Management: Formerly School Organisation*. 2009; 29(3):225–237.
- [17] Stewart C. A multidimensional measure of professional learning communities: The development and validation of the learning community culture indicator [dissertation]. 2009.
- [18] Wells C. M., Maxfield C. R. Preparing superintendents for building teacher leadership: Implications for university programs. *The International Journal of Educational Leadership preparation*. 2010; 2:1–10.
- [19] Cox M. F., Cekic O., Adams S. G. Developing leadership skills of undergraduate engineering students: Perspectives from engineering faculty. *Journal of STEM Education*. 2010; 11(3 & 4) 22–33.
- [20] Sankar C. S., Kawulich B., Clayton H., Raju P. K. Developing leadership skills in introduction to engineering courses through multi-media case studies. *Journal of STEM Education: Innovations & Research*. 2010; 11(3):34–60.
- [21] Hooper B. Challenge of Rural Leadership. Tintinara: The Worshipful Company of Farmers and Duchy College; 2010.
- [22] Dugan J. P., Komives S. R. Developing leadership capacity in college students: Findings from a national study. A Report from the Multi-Institutional Study of Leadership. College Park, MD: National Clearinghouse for Leadership Programs; 2007.
- [23] Greenwald R. Today's students need leadership training like never before. *The Chronicle of Higher Education*; 2010.
- [24] Skarbaliene A. The leadership competencies of teachers mentors as a factor of education of leadership competencies in students [dissertation]. Klaipeda: Lithuania Klaipeda University; 2015.
- [25] Reed K. E., Aiello D. P, Barton L. F., Gould S. L., McCain K. S., Richardson J. M. Integrating leadership development throughout the undergraduate science curriculum. *Journal of College Science Teaching*. 2016; 45(5):51–59.
- [26] Cress C., Astin H., Zimmerman-Oster K., Burkhardt J. Developmental outcomes of college students' involvement in leadership activities. *Journal of College Student Development*. 2001; 42(1):15–26.
- [27] Roberts D. C. Crossing the boundaries in leadership program design. In: Cherrey C., Gardiner J. J., Huber N., editors. *Building Leadership Bridges*. College Park, MD: International Leadership Association; 2003. p. 137–149.

- [28] Riggio R. E., Ciulla J., Sorenson G. leadership education at the undergraduate level: A liberal arts approach to leadership development. In: Murphy S. E, Ringio R. E., editors. *The Future of Leadership Development*. Mahwah, NJ: Lawrence Erlbaum; 2003. p. 223–236.
- [29] Schwartz M. K., Axtman K. M., Freeman F. H. *Leadership Education: A Source Book of Courses and Programs*. 7th ed. Greensboro, NC: Center for Creative Leadership; 1998.
- [30] Middlehurst R. Not enough science or not enough learning? Exploring the gaps between leadership theory and practice. *Higher Education Quarterly*. 2008; 62(4):322–339.
- [31] Lindsay D. R., Foster C. A., Jackson R. J., Hassan A. M. Leadership education and assessment: A developmental approach. *Journal of Leadership Education*. 2009; 8(1): 163–176.
- [32] Reed G. E. Toxic leadership. *Military review*. July–August 2004; Vol. LXXXIV (5) 67–71.
- [33] DiPaolo D. G. Echoes of leadership education: Reflections on failure, forgetting, and our future. *Journal of Leadership Education*. 2008; 7:77–90.
- [34] Eich D. A grounded theory of high-quality leadership programs: Perspectives from student leadership development programs in higher education. *Journal of Leadership and Organizational Studies*. 2008; 15(2):176–187.
- [35] Brungardt C., Greenleaf J., Brungardt C., Arensdorf J. Majoring in leadership: A review of undergraduate leadership degree programs. *Journal of Leadership Education*. 2006; 5(1):4–25.
- [36] Arellano E. C., Torres M. F., Valentine K. Interactional diversity in border colleges: Perceptions of undergraduate students. *Journal of Hispanic Higher Education*. 2009; 8(3):282–297.
- [37] Haworth J. G., Conrad C. F. *Emblems of Quality in Higher Education: Developing and Sustaining High-Quality Programs*. Needham Heights, MA: Allyn & Bacon; 1997.
- [38] Chickering A. W., Gamson Z. F. *Applying the Seven Principles for Good Practice in Undergraduate Education: New Directions for Teaching and Learning*. San Francisco, CA: Jossey-Bass; 1991.
- [39] Day D. V. Leadership development: A review in context. *Leadership Quarterly*. 2001; 11(4):581–613.
- [40] Synthesized model of modern studies. *Pedagogy*. 2005; 78:5–9.
- [41] Scandura T. A. Dysfunctional mentoring relationships and outcomes. *Journal of Management*. 2011; 37:280–304.
- [42] Creswell J. W. *Research design. Qualitative, Quantitative and Mixed Methods Approaches*. Los Angeles, CA: Sage; 2009.