

Reviewing the role of Higher Education towards the development of leadership competencies

EVANGELIA FRAGOULI

University of Dundee, Dundee, UK

Keywords

Leadership
Competence
Development
Higher education
Programs

Many scholars in academia agree with the proposition that education can act as a platform for competence development. With the passing of time, societies evolve and existing skills may no longer serve the needs of the newly transformed society. This study examines the extent to which higher education assists in the development of leadership competencies and the effects of higher education on leadership competencies from the student's perspective. The paper considers whether and to what degree, modern university business curricula assist in developing leadership competencies.

A critical literature review and an empirical study are applied. Data collected through the application of the 3M's Leadership Competency Model developed by Alldredge and Milan (2000). The study critically analyses literature research findings which have shown that a major challenge facing higher institutions of learning in the world is failure in shifting teaching and assessment methods from lecture-based to competence-development.

The study shows that there is a strong correlation between higher education and competence development, value is added when universities ensure that their teaching methods and assessments greatly improve the competencies of students, which are seen to be important in achieving organizational goals. Undoubtedly, it suggests that progressive innovation in teaching methodologies is essential parts of leadership competence development which is in line with the novelty that rise in education correspond with rise in productivity.

Corresponding author: Evangelia Fragouli

Email address for corresponding author: evangelinafrag@yahoo.com

First submission received: 17th July 2017

Revised submission received: 19th August 2017

Accepted: 27th August 2017

1. Introduction

Many scholars in academia agree with the proposition that education can act as a platform for competence development. With the passing of time, societies evolve and existing skills may no longer serve the needs of the newly transformed society. Therefore, there is an ever-increasing need for higher institutions of learning to model their curricula to meet societal needs from time to time. This section attempts to examine the extent to which higher education assists in the development of leadership competencies. It considers whether and to what degree, modern university business curricula assist in developing leadership competencies showing that value is added when universities ensure that their teaching methods and assessments greatly

improve the competencies of students, which are seen to be important in achieving organizational goals. Researchers have shown that a major challenge facing higher institutions of learning in the world is failure in shifting teaching and assessment methods from lecture-based to competence-development. Undoubtedly, there is a strong correlation between higher education and competence development. Progressive innovation in teaching methodologies is essential parts of leadership competence development which is in line with the novelty that rise in education correspond with rise in productivity.

There has been considerable interest in competency leadership development in higher education institutions since the early years of the twenty-first century. This is due to the common belief that the standard of graduate leadership competencies makes a notable difference to the image of their institutions. Many countries around the world, including developed countries have come to accept that effective school leadership is a necessity in higher education institutions to impart high quality education for learners and produce competent leaders. Majority of governments have started to realize that the human resource is their major asset and that remaining competitive requires a highly skilled and well-developed workforce. Achieving this entails a higher commitment from learners who also require strong and effective leadership and support from their universities.

Despite the tremendous amount of progress made, the main question remains to be 'how well institutions of higher learning prepare graduates in terms of leadership competency' considering the progressively changing and demanding work environments (Hills et.al, 2009). Andrews & Higson (2008) believe that most undergraduate educational institutions are failing to sufficiently prepare competent graduates for today's work places. Moreover, there is a merging consensus in the educational literature about the significance of defining essential competencies and specific learning outcomes in order to productively design and teach in academic programs (Baartman et al. 2007).

Higher education leadership is a necessity and is crucial for improving the institution and developing competent leaders. Leithwood et.al (2006) show that an institution's standard of leadership is second only to classroom teaching as an influence to student learning and skills development. While this argument is increasing being accepted, there is a need to determine what is required from universities and other higher education institutions to develop appropriate leadership competencies. The rapid and extraordinary changes around the world have sparked a global recognition that education is fundamental to becoming and remaining competitive. Unavoidably, this has put a lot of pressure and increased accountability on school leaders who now need to develop leadership programmes that will match the ever-changing world. Developed countries including the UK and USA are faced with acute problems such as poverty, killer diseases, natural disasters and limited material resources. These problems impose additional responsibilities on universities and other higher education institutions and highlight the need for learners (future leaders) to receive valuable training and development to be able to face these challenges. An analysis of the development of higher education leadership development programmes in USA and United Kingdom shows that both countries have experienced a period of distress about the standard of school management, leading to different attitudes and views towards higher education leadership development programmes.

In USA, the reaction to these differing views has been a modification of those programmes, supported in part by state and federal government and facilitated through sponsorships from independent foundations (Brundrett et.al, 2006). Consequently, this academic evaluation and assistance has since benefited higher education leadership development in the US. Contrary to the UK, central governmental organizations have not supported national programmes for school leadership arguing that some institutions present a danger of assuming training by a central bureaucratic system (Brundrett et.al, 2006). The first few years of the new millennium experienced a high interest in leadership development in the UK after many years of dominance of management training. In the early 2000s, UK's Cabinet Office's Performance and Innovation Unit (PUI) requested strengthening of leadership emphasizing the need for increased development of leaders and potential leaders. Leadership development subsequently became more important across UK's universities and public sectors, with new leadership centers being established such as the National College of School Leadership (NCSL) in England and the Leadership Foundation for Higher Education (LFHE), which serves universities and higher education colleges (Middlehurst et.al, 2009). Even though the experiences of the UK and USA cannot be viewed as having a mutual relationship due to the vast cultural and environmental deviations, their experiences can be regarded as comparable in several ways.

Considering the above, this section seeks to address the most prevailing issue in academia and business across the world, which is how can higher education help to develop the required leadership competency in graduates to meet the expectations in the industry by comparing what UK and US universities have done. The relevance of the section cannot be over emphasized as it will shed more light on the most pressing issue that has prevailed for decades. To the growing concern on graduate employability, it is evident that there is a need for more empirical research to further understand and expand knowledge on competency development of undergraduate in higher education. This kind of research will give an opportunity to better assess how well prepared high education institutions are for entry and junior level management positions. Additionally, this will help identify the most important skill gaps and the kinds of 'employability development opportunities' that can be established or reinforced both within Higher Education institutions (e.g., skills that are developed within section programmes) and outside of them (e.g., skills development from placement opportunities, 'live projects' and other extra-curricular activities).

2. Preparing & developing effective leader

Helping students to cultivate a culture of integrity and developing strength of character within them to prepare them for leadership is one of the most challenging but very important goals of higher education (King, 1997). The presumption that school leadership preparation has an impact on the standard of leadership development programmes is supported by research on the experience of new school leaders. A research completed by Daresh & Male(2000) with first year university leaders in England and USA recognizes the "culture shock" of assuming university leadership for the first time. Astin & Astin (2004) suggest that higher education plays a significant role in developing leadership competency in graduates and thus it is being turned to as the most favourable source of potential change in the leadership climate.

Without a proper leader preparation, the majority of new university leaders struggle to handle the different requirements of their roles. Brundrett et.al, (2006) maintain that leadership development is a tactical approach that must be intensified by the competencies of the school leader. Additionally, research (Pascarella & Terenzini, 2005) suggests that students usually increase their leadership skills during their years in college and that growths in leadership development ultimately enrich their self-efficacy, civic engagement, character development, academic performance, and personal development (Benson & Saito, 2001).

Avolio & Gardner, (2005) make an interesting argument for leadership development based on the belief that “leaders are made, not born”. People who seem to have natural leadership qualities have in most cases acquired them through a learning process, this leads us to a view that systematic and effective preparation of the school leader is more likely to produce successful competency leadership programmes than inadvertent experience. Watson (2003) assesses if leadership development should be customized to the needs of the learner, to the needs of the university or to the needs of the national system. Where there is a compulsory leadership qualification as in England, it is almost certain that national needs will have priority. “A national qualification requires a measure of consistency to reassure those recruiting leaders that all graduates have achieved at least threshold competence” (Bush, 2009).

2.1 Higher Education as a source of competence development

Undoubtedly, institutions of higher learning play a critical role in competence development. They add value by making sure that their modes of teaching and learning, and assessment positively improve the competencies or abilities of the students that are critical in the labour market. The mounting importance of skills in the market place has exhilarated many countries to make efforts to improve their higher education and training institutions in the recent decades. Velasco, (2014) suggests that rising education levels especially university education; essentially improve skills, an element which is important for economic growth. Simultaneously, educational growth is believed to be an important policy tool when attempting to reduce economic inequality because increased earnings are usually connected with increased education. However, to achieve the best results, universities are expected to have the proper combination of trained and skilful staff and motivated students willing to learn including adequate facilities.

Today’s teaching methods focus not only on conveying information but also on enhancing talents and expertise for more learning. Over the years, scholarly works have been released stressing the importance of skill development and skill requirement for different jobs and competencies prevalent in university graduates (Allen et.al, 2007). Despite this, it still appears that not much has been done to highlight or stress the contribution of institutions of higher education in the development of leadership competence skills. Countries that are well equipped with high skilled work force have good teaching and research activities within their universities. These higher education institutions are responsible for skill enhancement of the population and the development and transfer of technology. Therefore, governments should encourage people’s participation in higher education. In the late 1990s, participation in tertiary education increased in member countries of the Organization for Economic Co-operation and

Development (OECD). The increases in enrolment can be attributed to high participation rates rather than a general increase in population of the appropriate ages. However, the gap in investment between Europe and the United States is quite commendable. In 2005 for instance, the higher education proportion in the US amounted to about 39% comparing to 24% in Europe but for the younger population the gap is much narrower. This educational accomplishment gap is reflected by a gap in expenditure, with the US allocating 3.3 % of its GDP to higher education while only 1.3 % is assigned in the EU (Velasco, 2014). To the question of how modern universities structure their curricula to meet the demands of the labour market in terms of competence development, Velasco (2014) completed a section in which he utilized the findings of the European Commission funded project called REFLEX project. This was a representative of a section conducted in 2005 in which close to 32,800 graduates from 13 different European countries was interviewed five (5) years later following graduation. In his section, the graduates were asked about the competencies that their jobs required and the extent to which they possessed those competencies.

The section shows that many of the competencies that were not seen to be important in the labour market such as interpersonal competencies (which include clarifying to workmates ambiguous concepts or being able to work in harmony with people) seem to be of more importance in the workplace than cognitive competencies (which focus on writing and speaking a non-native language or information about another science or field). The section also shows that non-cognitive competencies are required more in the labour market than cognitive competencies. It was also noted that some skills or competencies that are seen to be very influential in the workplace such as negotiation and language skills are not a determining factor.

2.2. The content of leadership development programmes in the USA

Competency leadership development can be categorized into knowledge for understanding, knowledge for action, improvement of practice and development of a reflexive mode (Lunsford & Brown, 2016). Content-led programmes that are offered by most high education institutions may be interpreted as mainly directed towards knowledge for understanding. Each programme is made up of a syllabus that indicates the topics to be covered. In the United States, the curriculum is linked to the Standards for School Leaders, which is developed by the Interstate School Leaders Licensure Consortium (ISLLC) (Yeager & Callahan, 2013). These kind programmes appear to insist too much on the application of knowledge to improve practice than on theoretical issues. US higher institutions put special importance on intrapersonal qualities and leader development when creating leadership development programmes. Key tasks include producing a programme selection guideline (making sure to include personality traits such as desire, purposefulness and confidence), highlighting leadership competencies, producing an application process, evaluating participants, current school leadership skills, providing developmental activities by building a personal development plan, aligning structures to reinforce the programme, developing leaders in context, planning for the next generation and evaluating the leadership development programme (Iles & Preece, 2006).

Rutgers University in the United States established the Centre for Organizational Development and Leadership (ODL) which is meant to promote the personal and professional development of competency leadership skills. The centre hosts six major programme areas which were established and are regularly improved based on the business environment, benchmarking with leaders of other higher education institutions across the US, and other needs from faculty and staff within the university (Ruben, 2005). One of these program areas is the Leadership and Strategic Planning area, which teaches an all-inclusive approach for creating, organizing and implementing a strategic plan. The programme presents a step-by-step advice, case studies and exercises for producing a successful plan as a leader. The guide is compiled explicitly for leaders who are familiar with the demands of strategic planning in an area with numerous communication and organizational complications. The Management and Leadership Development area is another core area that is aimed at addressing modern matters of leadership. This program encourages consideration of theory and research on modern leadership topics and offers support for personal and professional development of students, faculty and staff. The university also hosts the Student Leadership Development Institute, which is meant to administer a complete and unified approach to leadership for Rutgers students from different academic backgrounds. E-Leadership is another resource offered by the university; it is a web-based reserve of journal articles on current leadership topics that allows students and faculty to analyse and discuss leadership in an implicit forum (Ruben, 2005).

2.3. Competence leadership development for women in Higher Education in the USA

Despite the increase in the number of women faculties in higher education, women are still in lower numbers in higher education institutions. They are continuously underrepresented in academic leadership positions in higher education. Hornsby et.al(2012) identified reasons to women's low advancing in leadership development in universities include institutional discrimination, women's capabilities being devalued, leadership conceptualization as a function of masculinity, and discrepancies with regards to men and women's goals. The Ohio State University in USA established The Women's Place (TWP) to promote and increase opportunities for women to grow and venture into leadership in a comprehensive and supportive university environment. The Women's Place in partnership with the Office of Human Resources keeps a track record of the number and status of women at Ohio State on an annual basis. Their focus is to create a rather new type of leader. The Ohio State also formed the President and Provost's Leadership Institute (PPLI) to establish several women and other outnumbered faculties who might move into leadership positions, and to offer future leaders the development they need to create a culture that is friendly and supportive for all (Hornsby et.al, 2012).

2.4 The content of leadership development programmes in the UK

Burgoyne et.al, (2004) argue that there does not exist a single kind of leadership with the capability to promote performance in a similar way for all situations. They conclude that there are rather many differing forms of leadership competency development that can be employed to bring about leadership capability and successively enhance performance in numerous ways. Such leadership development programmes usually involve a combination of competency

models, psychometric assessment of personality, emotional intelligence, team management profile, communication skills training, coaching, mentoring, facilitation, motivational speeches and outdoor development (Lunsford & Brown, 2016). Majority of these models are largely used in UK in programmes offered by the English National College for School Leadership (NCSL) and are generally extensively recommended. The leadership development programmes provided by the NCSL usually put too much emphasis on strategic and innovative thinking, leading and developing people, coaching and mentoring, performance management and personal impact, secondments and attachments, and making great use of e-learning. (Bush, 2006). The National College for School Leadership (NCSL) speaks on behalf of school leaders in the UK. In the U.S and other parts of the world; the NCSL has been hailed as an exceptional illustration of modernization in the development of competent leaders. It has been viewed as a unique college in that it maintains a national focus on leadership, emphasizes development at all levels of leadership, focuses greatly on practice, and it reaches a majority of school leaders who then transfer the leadership development styles to their students (Hornsby et.al, 2012). The NCSL is now the prevailing influence on school leadership development and research and has essentially transformed views on leadership development by initiating collection of development programmes, some of which are discussed in the paragraphs below.

Coaching, as a form of leadership development in NCSL stresses the skills development dimension. Coaches contribute safe and confidential support to nurture critical professional, personal, and improvement to the institution through a technique that unravels over time. (Simkins et.al, 2006) concludes that three critical points influence the quality of coaching at the NCSL and they are; the competence of the coach and his commitment, the amount of time dedicated to the process, and the place of coaching within broader school leadership development strategies. Coaching has proven to be successful when there is thorough and specific training, when the coach is carefully matched to the person he/she coaches, and when it is a fundamental part of the whole learning process (Bush et.al, 2007).

Action learning heightened commitment on action learning originates partly because of the enhanced realization that leadership is a practical activity. Even though knowledge and understanding aim to support leadership performance, they provide an incomplete guide to action. Action learning is a critical element of the development programmes for NCSL's first time leaders (Hallinger & Bridges, 2007).

Networking Bush & Glover (2007) recommend networking as one of the leading approaches to leadership development. Internships may be considered as one of the forms of networking and this may promote professional socialization. Overviews of NCSL's assessments show that networking is the most effective form of leadership development. It is likely to be more successful when it is well structured and has a clear-cut purpose. Its main advantage is that it is "live learning" and provides strong potential for ideas transfer (Bush & Glover, 2007).

2.5 Trends of leadership development capabilities in USA college students

Since the beginning of the early 1990s, there has been increasing attention on leadership development within college students. A convergence of trends has been observed for the past years that are focused on supporting a revolutionary movement of developing critical

leadership qualities in students in high education (Dugan & Komives, 2007). The movement has gained momentum in recent years because the emphasis on accountability for learning has increased. There have been significant trends that emerged since the early 1990s that have brought attention to this cause.

These include:

- The paradigm shifts in leadership theory and philosophy to relational, reciprocal models suggested by (Burns, 1978), (Komives et.al, 2007), (Nort-house, 2007) and (Rost, 1991)
- The rising prominence in business and industry on teams and combined practices proposed by (Lipman-Blumen, 1996) and (Pearce & Conger, 2003)
- The development and learning outcomes in colleges steered by the Association of American Colleges & Universities, National Association of Student Personnel Administrators & American College Personnel Association (NASPA & ACPA), and U.S. Department of Education)
- The movement that stimulates volunteerism, service learning and civic engagements spearheaded by (Colby et.al, 2003)
- The enablement of social distinctiveness groups and their distinct leadership needs proposed by (Bordas, 2007), (Hoppe, 1998) and (Kezar, 2000)
- New leadership model development for college students carried out by Higher Education Research Institute (HERI), (Komives et al., 1998), (Posner, 2004) and (Posner & Brodsky, 1992)
- The student leadership educator role polishing and professionalization by (Komives, Dugan, Owen, Slack, & Wagner, 2006)
- The radical surfacing of new leadership associations, conferences, and resources for leadership educators for example the International Leadership Association (ILA), the National Clearinghouse for Leadership Programs (NCLP), and The Association of Leadership Educators (ALE).

These trends come together in a form of institutional and social order that requires institutions of higher education to develop responsible leaders socially. However, this task requires that all members of the campus community, those that are teaching leadership roles and those that are with co-curricular leadership programs make certain that it is their joint responsibility. Dugan & Komives(2006) suggested that of the trends in the US, only four have contributed most to the formalization of the leadership programs in high education.

2.6 Expansion of curricular and co-curricular leadership programs

The expansion of campus leadership practice that expanded exponentially in the 1990s includes the first undergraduate leadership major at Jepson School of leadership, Studies at the University of Richmond and plethora of leadership certificate programs and academic minors at other institutions. Leadership educators introduced co-curricular leadership programs that were open to any interested student such as new emerging leaders who complemented already existing positional leader training programs. Ultimately, around 700 leadership programs existed around higher education campuses during that time period (Schwartz et.al, 1998). Intensive models like the relational leadership model by Komives et al, (2007) social change

model by (Heri, 1996), student adaptation of servant leadership model by Greenleaf, (1977) and leadership challenge suggested by Kouzes & Posner (2002) have begun to reflect evolving conceptualizations of leadership. Researchers and theorists posited these models to target development needs of college students.

3. Leadership education professionalization

An additional influential trend includes the professionalization of leaders in leadership education roles and a radical emergence of national organizations that support leaders in these positions. As practices began to multiply, more higher education institutions hired faculty, student affairs educators, and other administrative staff meant specifically to support and sustain programs and work closely with students in leadership development. Associations such as the National Clearinghouse for Leadership Programs (NCLP), Association of Leadership Educators (ALE), and the James Macgregor Burns Academy of Leadership; leadership orientated conferences such as the University of Richmond's Leadership Educators Conference and the NCLP's National Leadership Symposium presented support and prospects to participate in discussion about how to advance student leadership practices.

In the present scenario, a competent leader is defined as an expert with various qualifications and skills (Wadekar, 2007). The organizations must have enough number of qualified global managers specially to compete effectively in the global market. Also, to be able to follow the current and future developments in the globalization, the managers and leaders in the company must be competitive in the global market. In addition to this, to be able to employ skilled global managers efficiently, the companies should first focus on the right criteria for the recruitment process, and they should help to determine and develop the competencies that the global managers must have (Wu and Lee, 2007). The main purpose of developing leadership skills is to help an organization achieve its strategic goals. Because, while the business world is becoming more and more competitive, companies face many other challenges at the same time. Mergers, acquisitions and regular reorganizations can be cited as examples. Such situations create confusion and difficult problems that must be solved in corporate cultures. Leadership competencies of the managers can be tested at these times (Berke et al., 2008). For example, it is often claimed that many managers, who are quite successful in local operations, prominently fail in the international arena for a reason. There might be two reasons for that. First assumption might be that different competencies are needed in global businesses than those required in domestic operations. The other assumption is that global leaders improve their competencies to a higher (global) level (Jokinen, 2005).

Many scholars have prepared a list of Leadership competencies with reference to the development of leadership. In this study, 3M's Leadership Competency Model developed by Alldredge and Nilan (2000) was used as the questionnaire scale. The Leadership competencies of this Model are: Ethics and Integrity, Intellectual Capacity, Maturity and Judgment, Customer Orientation, Developing People, Inspiring Other, Business Health and Results, Global Perspective, Vision and Strategy, Nurturing Innovation, Building Alliances, Organizational Agility.

The aspects of leadership are often discussed in terms of competencies. These competencies can be defined by the abbreviation KSA (Knowledge, Skills and Abilities). Leadership training is crucial both for training the leader candidates for the future and improving the competencies of the existing managers. Some aspects of leadership tend to be learned and others are less. Approximately \$ 50 billion is spent annually for Leadership development (Tubbs and Schulz, 2006).

Nowadays, the higher education is at the center of leadership training. For this reason, there are many higher education programs with various names at the universities and the colleges. Also, numerous higher education programs include a number of courses on leadership training (Astin and Astin, 2000). In this study, the effects of higher education on Leadership competencies were examined from the perspective of the students. How much their education contributed to the leadership competencies given at questionnaire is asked to 300 higher education students. In particular, how the relation between the participants' education and leadership training affected the outcomes was focused on.

4. An empirical approach

Geoghegan and Dulewicz (2008) made an experimental study with 52 project managers and project sponsors from a financial services company in the United Kingdom to examine if there was a statistically significant relationship between a project manager's leadership competencies and project success. The article focuses on the correlation between two factors (usability, presentation of the project) and project leadership. Thus, eight separate leadership dimensions were found to be statistically significantly related to performance, so the hypothesis of "increased capability in leadership dimensions can lead to increased success in project management" was supported. Chin et al. (2001) focused on the great need for global leadership competencies in the business world. By comparing Chinese and American cultures, they explained how cultural differences have an influence on the leadership competencies. Then, they identified the difficulties that the individuals face in developing leadership competencies because of cultural differences and they have introduced a new model to improve people at global leadership level. Curtis and Vries (2011) examined the role and impact of education and training on nursing leadership in their study. The high need for leaders with high leadership competencies in various health institutions and hospitals was emphasized first in the research.

Then, it was shown that the higher education programs integrated with leadership training had a positive effect on nurses' leadership skills and practices. In the questionnaire, that the nurses who attended leadership training studies performed better was determined by both the management of the institution and the patients and patients' relatives. At the end of the research it is suggested that the health institutions should continue to develop and support leadership training. It is also suggested that they should seek ways to maintain and improve leadership development in practice. Sherman et al. (2007) conducted an experimental study with 120 participants of nurse managers to establish a nursing leadership competency model. As a result of the study, a new nurse manager leadership competency model was developed with 6 items and that the requirement for developing leadership competencies of the new generation nurses was verified officially. It was also emphasized that the leadership skills of nurse

managers are directly proportional to the quality of the health services in the institution. Tubbs and Schulz (2006) tried to explain which of the leadership competencies of an individual can be developed and which get fixed at a relatively early stage. 50 leadership competencies were identified in the study and these were classified. The purpose of the classification is to determine the competencies to be focused on the leadership training. This article defines the Global Leadership Competency Model as taxonomy of Global Leadership competencies and Meta competencies. As a result, it has been suggested that the leadership development efforts should be focused on the outermost circle of the model. Figure 1 shows taxonomy of leadership competencies and meta-competencies.

Figure 1: Taxonomy of leadership competencies and meta-competencies. (Tubbs and Schulz 2006)



In their report, Astin and Astin (2000) examined the leadership concept and leadership training in the USA from a critical point of view and they placed the leadership training in higher education in the center of these concepts. Particularly in the first part of the report, mistakes in leadership training in higher education were expressed and recommendations were made to improve this training. According to the report, it is not sufficient just to focus on the curriculum to improve leadership training in higher education. It was also emphasized that the students, faculty members, student affair employees, institutes, and the other managers should be covered in the work.

Allredge and Milan (2000) developed an executive-level global competency model in their work. A global team of top executives and professionals in the company contributed to the study. The competency model that was developed as a result of the study consists of 12 competencies. These competencies are Ethics and Integrity, Intellectual Capacity, Maturity and Judgment, Customer Orientation, Developing People, Inspiring Others, Business Health and Results, Global Perspective, Vision and Strategy, Nurturing Innovation, Building Alliances, and Organizational Agility.

5. Methodology

The research is based on an empirical study. The data collection tool was prepared by using 3M's Leadership Competency Model developed by Allredge and Milan (2000). Twelve (12) leadership competencies of the original scale were examined by the questionnaire.

5.1. Instrumentation

In the questionnaire, to which extent their higher education, has impact on these leadership competencies was raised to participants. As a measurement tool, a graded questionnaire of 5-point-Likert scale was used. The questionnaire consists of two parts. In the first part, the participants were asked about their demographic characteristics (age, gender, level of education, country of education, and the relation of their education program with leadership training). The questions in the second part were prepared by using 3M's Leadership Competency Model's scale developed by Alldredge and Nilan, (2000). A total of 12 Leadership competencies were identified and the participants were asked how their higher education affected these leadership competencies. A graded questionnaire of 5-point Likert scale was used as a measurement tool. The options of the scale and their points and boundaries are determined as Strongly Disagree (1 point), Disagree (2 points), Undecided (3 points), Agree (4 points), and Strongly Agree (5 points). The survey was conducted among students who got scholarship from National Education Ministry of Turkish Republic to have their higher education abroad, who have still been studying, or have already graduated from a higher education institution abroad. In this scholarship program, there are thousands of students studying in 511 different programs in 67 countries, most of them studied or has been studying in the USA and the UK (MEB: 2017). The participants of the questionnaire were contacted through various social media tools and they filled out the questionnaire online. The total number of the participants was determined as 300, and the survey has been terminated when the number was reached. The 19 participants' questionnaires were removed from the data set for various reasons (missing data, extreme values, incorrect data, and inconsistency between responses) and a total of 281 questionnaires were evaluated. The results were analyzed by using IBM SPSS 20. Statistics Data Editor.

5.2 Sample

The survey was conducted among students who got scholarship from National Education Ministry of Turkish Republic to have their higher education abroad. The participants have still been studying, or have already graduated from a higher education institution abroad. In this scholarship program, there are thousands of students studying in 511 different programs in 67 countries, most of them studied or has been studying in the USA and the UK (MEB: 2017). The participants of the questionnaire were contacted through various social media tools and they filled out the questionnaire online. The total number of the participants was determined as 300 (three hundred).

6. Research design

The total number of valid questionnaires is 281. The number of women is 139 (49.5%) and the number of males is 142 (50.5%). 82.6% of the students who answered the questionnaire are between 25-30 years of age. When we look at the participants' education level, 200 students are at masters' level, and 81 of them are PhD students. 120 students study in the United Kingdom, 106 in the United States and 55 in the other countries. Before beginning the analysis, the validity and reliability of the scale was examined within the scope of this research. Item-total correlation analysis and factor analysis were applied for construct validity of the measurement tool. The alpha coefficient is considered for the reliability. The item-total correlation values for

the construct validity of the scale were examined. The item total correlation coefficient is expected to be at least .20 (Sipahi et al., 2000). Because there is no item below alpha value of .20, all the items are maintained in the scale. Table 1 shows Item-Total Correlation results.

Table 1: Item-Total Correlation results

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Ethics and Integrity	41,3488	56,114	,587	,481	,877
Intellectual Capacity	40,9715	55,163	,557	,411	,878
Maturity and Judgment	41,2811	54,089	,674	,634	,872
Customer orientation	41,8256	53,702	,482	,351	,883
Developing people	41,1566	56,375	,499	,496	,880
Inspiring others	41,4626	53,592	,646	,653	,873
Business health and results	41,5160	50,808	,713	,609	,868
Global perspective	41,2705	55,462	,487	,480	,881
Vision and strategy	41,5836	51,958	,684	,680	,870
Nurturing innovation	41,1032	53,700	,630	,508	,874
Building alliances	41,6157	51,295	,569	,425	,879
Organizational agility	41,3132	54,873	,592	,472	,876

Before the factor analysis, the Kaiser-Meyer-Olkin (KMO) value was calculated as .813 to consider if the data are appropriate for the factor analysis. To be able to apply factor analysis on the data, the minimum KMO value must be .60 (Sipahi et al., 2000). The KMO value of .813 observed in this case indicates that the data are suitable for factor analysis. On the other hand, the result of Barlett test for factor analysis of 12 items was calculated as ($p < 0.001$). The results of KMO and Barlett tests revealed that factor analysis could be applied on these data. Table 2 shows KMO and Bartlett's Test results. When deciding on an item to be included in the scale, the criteria was .30 or higher for the factor load value (Buyukozturk, 2002). In this case, all the items in the scale are included in the questionnaire.

Table 2: KMO and Bartlett's Test results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,813
Bartlett's Test of Sphericity	Approx. Chi-Square	1560,432
	Df	66
	Sig.	,000

A normal distribution test was conducted to determine the method by which the results would be analyzed. According to Tabachnick and Fidell (2013), if the values of Skewness and Kurtosis are between -1.5 and +1.5, the existing data can be accepted as normally distributed. As a result, the Skewness value was -0.347 and the Kurtosis value was 0.033, and the data were accepted to be normally distributed. Table 3 shows the results of normality analysis.

Table 3: Results of normality analysis

		Statistic	Std. Error	
mean scores of the Competencies	Mean	3,7608	,03962	
	95% Confidence Interval for Mean	Lower Bound	3,6828	
		Upper Bound	3,8388	
	5% Trimmed Mean	3,7856		
	Median	3,7500		
	Variance	,441		
	Std. Deviation	,66423		
	Minimum	2,08		
	Maximum	5,00		
	Range	2,92		
	Interquartile Range	,75		
	Skewness	-,347	,145	
	Kurtosis	,033	,290	

For this reason, the independent-samples T test was used for the variables of two groups and the One-Way Anova test was used for variables of more than two groups. In the analysis applied, the education programs of the students were analyzed according to 5 different variables (gender, age, level of education, country of education, and the relation of the education program with leadership training) and the effects of these variables on the outcome were examined.

In order to be able to interpret the research's results about developing Leadership competencies in general, the mean values of 12 questions in the second part of the questionnaire were calculated; they were sorted under the title of Mean of the Competencies Scores and were analyzed according to these values. Then, the same analysis was repeated for each of the developing leadership competencies.

6.1 Research findings

Hypothesis 1

H_0 = Participants have no effect on the results of Developing Leadership competencies according to the "gender" variable.

H_1 = Participants have a significant effect on the results of Developing Leadership competencies according to the "gender" variable.

Since the gender variable includes two groups, male and female, independent-samples T test was used for the analysis. According to the test results, it was determined that there was no significant effect of participants at the level of .05 on the mean of the Competencies scores according to gender variable. For this reason, the H_0 hypothesis was accepted and the H_1 hypothesis was rejected. Likewise, when this test was applied separately for each of the Developing Leadership competencies, no significant difference at the level of .05 was determined.

Hypothesis 2

H₀= Participants have no effect on the results of Developing Leadership competencies according to the "age" variable.

H₁= Participants have a significant effect on the results of Developing Leadership competencies according to the "age" variable.

Since the age variable includes four groups as 25(-), 25-30, 31-35 and 35(+), One-Way Anova test was used for the analysis. According to the One-Way Anova test results, it was determined that generally there was no significant effect of participants at the level of .05 on the mean of the Competencies scores according to age variable and the H₀ hypothesis was accepted and the H₁ hypothesis was rejected. On the other hand, when this test was applied separately for each of the Developing Leadership competencies, a significant difference was observed between the groups for the 6th Leadership Competency (Inspiring others).

To determine the difference between the groups, Tukey HSD and Scheffe tests were applied and according to the results it was determined that there was a generally significant difference at the level of .05 between the group of 35 (+) and the groups of 31-35 and 25-30. Table 4 shows the results of the Tukey HSD and Scheffe tests for age variable.

For the 6th question in the second part of the questionnaire, the mean value of the answers given by the students in the age group of 35 (+) is (= 2.750), the mean value of the answers given by the students in the age group of 31-35 is (= 4.000) and the mean value of the answers given by the students in the age group of 25-30 is (=3,681).

Table 4: Results of the Tukey HSD and Scheffe tests for age variable

Multiple Comparisons

Dependent Variable: INSPIRING OTHERS

	(i) What is your age?	(j) What is your age?	Mean Difference (i-j)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	25 (-)	25-30	-.01437	,27632	1,000	-.7286	,6998
		31-35	-.33333	,32779	,740	-1,1806	,5139
		35 (+)	,91667	,38104	,078	-.0682	1,9015
	25-30	25 (-)	,01437	,27632	1,000	-.6998	,7286
		31-35	-.31897	,19647	,367	-.8268	,1889
		35 (+)	,93103*	,27632	,005	,2168	1,6452
	31-35	25 (-)	,33333	,32779	,740	-.5139	1,1806
		25-30	,31897	,19647	,367	-.1889	,8268
		35 (+)	1,25000*	,32779	,001	,4028	2,0972
	35 (+)	25 (-)	-.91667	,38104	,078	-1,9015	,0682
		25-30	-.93103*	,27632	,005	-1,6452	-.2168
		31-35	-1,25000*	,32779	,001	-2,0972	-.4028
Scheffe	25 (-)	25-30	-.01437	,27632	1,000	-.7916	,7628
		31-35	-.33333	,32779	,793	-1,2553	,5886
		35 (+)	,91667	,38104	,125	-.1551	1,9884
	25-30	25 (-)	,01437	,27632	1,000	-.7628	,7916
		31-35	-.31897	,19647	,453	-.8716	,2337
		35 (+)	,93103*	,27632	,011	,1538	1,7083
	31-35	25 (-)	,33333	,32779	,793	-.5886	1,2553
		25-30	,31897	,19647	,453	-.2337	,8716
		35 (+)	1,25000*	,32779	,003	,3280	2,1720
	35 (+)	25 (-)	-.91667	,38104	,125	-1,9884	,1551
		25-30	-.93103*	,27632	,011	-1,7083	-.1538
		31-35	-1,25000*	,32779	,003	-2,1720	-.3280

*. The mean difference is significant at the 0.05 level.

Hypothesis 3

H₀= Participants have no effect on the results of Developing Leadership competencies according to the "level of education" variable.

H₁= Participants have a significant effect on the results of Developing Leadership competencies according to the "level of education" variable.

Since the level of education variable includes two groups, Master's and PhD, independent-samples T test was used for the analysis. According to the test results, it was determined that there was no significant effect of participants on the mean of the Competencies scores according to level of education variable at the level of .05 and the H₀ hypothesis was accepted and the H₁ hypothesis was rejected. Likewise, when this test was applied separately for each of the Developing Leadership competencies, no significant difference at the level of .05 was determined.

Hypothesis 4

H₀= Participants have no effect on the results of Developing Leadership competencies according to the "country of education" variable.

H₁= Participants have a significant effect on the results of Developing Leadership competencies according to the "country of education" variable.

Since the country of education variable includes three groups as the USA, the United Kingdom and the others, One-Way Anova test was used for the analysis. According to the One-Way Anova test results, it was determined that generally there was no significant effect of participants on the mean of the Competencies scores according to country of education variable at the level of .05 and the H₀ hypothesis was accepted and the H₁ hypothesis was rejected. However, when this test was applied separately for each of the Developing Leadership competencies, a significant difference was observed between the groups for the 2nd Leadership Competency (**intellectual capacity**) and 11th Leadership Competency (**building alliances**). To determine the difference between the groups, Scheffe test was applied. According to the results of 2nd question, a generally significant difference was determined at the level of .05 between the groups of USA and other countries. For this question of the second part of the questionnaire, the mean value of the answers given by the students studying in the USA is (=4.0189) and the mean value of the answers given by the students studying in other countries is (=4.4364). Then, according to the results of the 11th Leadership Competency (**building alliances**), Scheffe test was applied to analyze the differences between the groups by the country of education variable. According to the results, a generally significant difference was determined at the level of .05 between the groups of USA and other countries. For the 11th question, the mean value of the answers given by the students studying in the USA is (=3.7736), and the mean value of the answers given by the students studying in other countries is (=3.7273). Table 5 shows the results of the Scheffe test for the country of education variable.

Table 5: Results of the Scheffe test for the country of education variable.

Multiple Comparisons

Scheffe

Dependent Variable	(I) Where is the country you studied?	(J) Where is the country you studied?	Mean Difference (I-J)	Std. Error	Sig.
INTELLECTUAL CAPACITY	USA	the United Kingdom	-.13947	.12004	.510
		other	-.41750*	.14966	.022
	the United Kingdom	USA	.13947	.12004	.510
		other	-.27803	.14665	.168
	other	USA	.41750*	.14966	.022
		the United Kingdom	.27803	.14665	.168
BUILDING ALLIANCES	USA	the United Kingdom	.30692	.17007	.198
		other	.64631*	.21202	.010
	the United Kingdom	USA	-.30692	.17007	.198
		other	.33939	.20776	.265
	other	USA	-.64631*	.21202	.010
		the United Kingdom	-.33939	.20776	.265

*. The mean difference is significant at the 0.05 level.

Hypothesis 5

H_0 = Participants have no effect on the results of Developing Leadership competencies according to the “the relation of the education program with leadership training” variable.

H_1 = Participants have a significant effect on the results of Developing Leadership competencies according to the “the relation of the education program with leadership training” variable.

The relation of the education program with leadership training variable includes three groups as “My education is directly a leadership/management program”, “My education is not directly a leadership/management program but it contains several modules”, and “My education do not have any relation with leadership/management education program”. Since then One-Way Anova test was used for the analysis. According to the One-Way Anova test results, a generally significant difference in the mean of the Competencies scores was determined according to the relation of the participants’ program with leadership training variable at the level of .05 and the H_0 hypothesis was rejected and the H_1 hypothesis was accepted. Likewise, when this test was applied separately for each of the Developing Leadership competencies, since p value of inter-group comparison is (= .140), no significant difference was determined at the level of .05 for the 5th Leadership Competency (DEVELOPING PEOPLE). However, since the p values for all the other Leadership competencies are less than .05, a statistically significant difference between the groups was determined. Table 6 shows the results of the One-Way Anova test for Hypothesis 5 (Table 6). Then, Tukey HSD and Scheffe tests were applied to examine the level of difference between the groups for these 11 Leadership competencies.

Table 6: Results of the One-Way Anova test for Hypothesis 5
ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
ETHICS AND INTEGRITY	Between Groups	19,674	2	9,837	18,467	,000
	Within Groups	148,084	278	,533		
	Total	167,758	280			
INTELLECTUAL CAPACITY	Between Groups	26,292	2	13,146	17,784	,000
	Within Groups	205,502	278	,739		
	Total	231,794	280			
MATURITY AND JUDGMENT	Between Groups	12,829	2	6,415	8,877	,000
	Within Groups	200,893	278	,723		
	Total	213,722	280			
CUSTOMER ORIENTATION	Between Groups	93,454	2	46,727	42,982	,000
	Within Groups	302,225	278	1,087		
	Total	395,680	280			
DEVELOPING PEOPLE	Between Groups	2,872	2	1,436	1,977	,140
	Within Groups	201,953	278	,726		
	Total	204,826	280			
INSPIRING OTHERS	Between Groups	41,521	2	20,761	27,134	,000
	Within Groups	212,699	278	,765		
	Total	254,221	280			
BUSINESS HEALTH AND RESULTS	Between Groups	59,579	2	29,789	28,081	,000
	Within Groups	294,912	278	1,061		
	Total	354,491	280			
GLOBAL PERSPECTIVE	Between Groups	20,039	2	10,019	11,252	,000
	Within Groups	247,549	278	,890		
	Total	267,587	280			
VISION AND STRATEGY	Between Groups	74,112	2	37,056	43,014	,000
	Within Groups	239,490	278	,861		
	Total	313,601	280			
NURTURING INNOVATION	Between Groups	25,160	2	12,580	14,906	,000
	Within Groups	234,613	278	,844		
	Total	259,772	280			
BUILDING ALLIANCES	Between Groups	103,295	2	51,647	39,350	,000
	Within Groups	364,883	278	1,313		
	Total	468,178	280			
ORGANIZATIONAL AGILITY	Between Groups	17,009	2	8,505	11,436	,000
	Within Groups	206,735	278	,744		
	Total	223,744	280			
mean of the Competencies scores	Between Groups	30,577	2	15,288	45,721	,000
	Within Groups	92,958	278	,334		
	Total	123,535	280			

7. Discussion

In the study, to which extent higher education has impact on the development of leadership competencies was the key theme being explored through a questionnaire. The results were analyzed according to five (5) different variables (gender, age, level of education, country of education, and the relation of the education program with leadership training). Generally, no significant difference was determined between the first 4 variables and the results of leadership competency development. However, it was determined that the 5th variable (the relation of the education program with leadership training) had an effect on the development of leadership competency in the level of 0.05. Then Tukey HSD and Scheffe tests were applied to examine the level of difference between the groups. According to the results, it was determined that there was a statistically significant difference between the Group 1 (My education is directly a leadership/management program), Group 2 (My education is not directly a leadership/management program but it contains several modules) and Group 3 (My education do not have any relation with leadership/management education program).

According to these results, it is verified that higher education plays an important role in shaping the quality of leadership in the modern world (Astin and Astin, 2000). Considering the need for leaders in the modern world, it can be suggested that the leadership programs in higher education should be increased in educational institutions. During the recruitment for the management positions and promotion process in the companies, whether the candidates have leadership training should be a criterion to be considered seriously.

Leadership and leadership training has been a topic of research by the academic and business world in recent years. For the companies, almost in every industry in the globalized world, the need for leaders with the competencies required for global expansion and operations is increasing constantly. Approximately \$50 billion per year is spent on leadership development (Tubbs and Schulz, 2006). The main purpose of developing leadership skills is to help an organization achieve its strategic goals (Wadekar 2007).

There are numerous studies that show the importance of leadership development for organizational success. The way to be followed for leadership development is to focus on correctly identified leadership competencies (Berke et al., 2008). In the literature on leadership development, many scholars and companies have prepared a number of lists of leadership competencies adapted to the field of activity (Tubbs and Schulz, 2006). Because, without a competency model, it would be very difficult to harmonize individual leadership behavior with organizational strategy and to ensure the organizational consistency. Also, this model should be reviewed and updated periodically according to the challenges and the experience gained. This may be due to the changes in the policies of the company or keeping up with the requirements of the era. (Berke et al., 2008).

7.1 Further understanding towards competence formation

When we consider the positive role that competencies have had on labour market outcomes, then, we understand why there has been a great emphasis on competence development (Allen et. al, 2007). Therefore, many countries have been encouraged to make efforts aimed at enhancing their educational and training institutions in the past few years. With

the rise in levels of university education, there is a rise in skills and ultimately economic growth. However, only few universities have paid great attention to competence development and have included deliberate programs in their business curricula to address this issue.

Research has shown that there is a worldwide tendency to link earnings with education. That is, increased earnings are directly linked to increased education. This view has been supported by (Allen et.al, 2007). This state of affairs has the potential to widen inequalities. To reduce the gap, educational expansion is seen as an important policy tool. The more people are educated, the less the inequalities in the society, because education is an important tool used for the distribution of skills and competencies. In a research undertaken by Altonji et.al(2008), in 1979 and 1997, two different panels were respectively surveyed and the various skills of participants aged 29 were measured. According to the research, between 1980 and 2004, there was a wide distribution of skills among American young adults and, generally, the youths of 1997 were more skilled than the youths of 1979.

However, the question that was not fully addressed by any scholar research is the extent to which an increase of the levels of education correlates with an increase in cognitive and/or non-cognitive skills for people living in a particular society. Velasco(2014) indicated that non-cognitive skills have a role to play in so far as the labour market is concerned. Bowles et al, (2001), Heckman et al, (2006), and Leras(2008) cited in Velasco, (2014), provide a thorough analysis of the role of non-cognitive skills in the labour market. They postulate that for the labour market to thrive there is a need for institutions of higher learning to adapt and to take into account the changes that take place in society from time to time when formulating their curricula. However, the literature review shows that more can still be said on the extent to which institutions of higher learning help in the development of non-cognitive skills or leadership competencies. The available literature suggests that there is a positive correlation between cognitive skills (and skill growth) and incomes. Business schools need to take practical steps in instilling leadership competence skills in their students so that they can readily be applicable to the labour market. A practical way of doing this is firstly by identifying the gaps in skill development in the labour market. Business schools should model their curricula in line with the changes that take place in societies from time to time.

Higher education plays an important role in developing the quality of the leadership in the modern world. Numerous students study various leadership programs at the universities and the colleges or courses on leadership are included in their education programs. (Astin and Astin, 2000). In this study, the effects of higher education on leadership competencies was researched from the student's perspective. How much their education contributed to the leadership competencies given at questionnaire is asked to 300 higher education students. In particular, how the relation between the participants' education and leadership training affected the outcomes was focused on. As a result, it was determined that the participants have a significant effect on developing leadership competencies results according to the relation of their education program with leadership training variable. According to the results of the Tukey HSD and Scheffe tests applied for examining the level of difference between the groups, it was revealed that there was a statistically significant difference at the level of .05 between the students who directly studied and the ones who did not study leadership program or the

students who just took one or more courses related to leadership training. As stated before, this study was prepared by examining from the perspective of higher education students. This study offers the opportunity to compare the results to the future studies that can be made from different perspectives.

8. Conclusion

The above literature review shows that there is a considerable link between higher education and leadership competence development. We gather from the results and findings of this study that institutions of higher learning play a key role in competence development, but unfortunately, higher institutions do not tailor their business curricula towards the development of competence leadership skills. We also gather from the literature that graduates often face challenges when they join the labour market because in most cases, they are ill equipped in terms of the competencies required for the job they are called upon to do.

Moreover, it is known that societies change and there is always a need for people to acquire new skills to meet the new demand. This usually calls for institutions of higher education to play a critical role in instilling the requisite competencies needed by making sure their curriculums are reviewed constantly to meet demands as society leadership needs evolves. We have shown that, particularly, business schools have a great challenge to ensure that their curricula are designed to build leadership competencies of their students.

A further review of the available literature suggests that some universities in modern societies, particularly US and Britain, have taken the initiative towards developing their curricula. However, much remains to be done as new challenges have emerged with the introduction of the internet and a new set of competencies is required to be developed. Overall, this study has revealed that there is a strong positive correlation between higher education and leadership competence development showing that despite the critical role that institutions of higher learning have to play in competence leadership development (which role is recognized by all the stakeholders), only a few, especially those in modern economies have modified their curricula accordingly.

8.1 Limitations & Recommendations

There are many limitations regarding the present study. There are methodological limitations in terms of the use of the selected 3M Leadership Model as the main framework for the development of the distributed questionnaire. The use of another leadership model or/and a combination of more models might challenge us to investigate additional variables resulting in more insight information on the examined subject. Another methodological limitation was the type of data analysis that was applied, as well as the sample limitations. Further studies could elaborate more on this issue selecting a bigger and multicultural sample and applying more inferential statistics.

Besides the above regarding the context of the present study, the main recommendation regarding the research findings indicate that Higher Education Institutions should revisit and re-examine carefully their curricula, policies and processes in order their students to develop leadership competencies.

References

- Allen, J., Inenaga, Y., van der Velden, R., & Yoshimoto, K. (Eds.). (2007). *Competencies, higher education and career in Japan and the Netherlands (Higher Education Dynamics)*. Dordrecht, the Netherlands: Springer.
- Altonji, J. G., Bharadwaj, P., & Lange, F. (2008). Changes in the characteristics of American youth: Implications for adult outcomes. NBER Working paper series #13883, *National bureau of economic research*, Cambridge, MA.
- Arnold, J., Loan-Clarke, J., Harrington, A., & Hart, C. (1999). Student's perceptions of competence development in undergraduate business-related degrees. *Studies in Higher Education*, 24(1), 43-59.
- Avolio, B.J. & Gardner, W.L., 2005. Authentic leadership development: Getting to the root of positive forms of leadership. *The leadership quarterly*, 16(3), 315-338.
- Allredge, M. E., and Nilan, K. J. (2000). 3M's leadership competency model: An internally developed solution. *Human resource management*, 39(2, 3), 133-145.
- Astin, A. W., & Astin, H. S. (2000). *Leadership Reconsidered: Engaging Higher Education in Social Change*. Battle Creek, MI: W.K. Kellogg Foundation.
- Berke, D., Kossler, M. E., and Wakefield, M. (2008). *Developing leadership talent*. John Wiley & Sons. CA: Pfeiffer, Wiley imprint.
- Biemans, H., Nieuwenhuis, L., Poell, R., Mulder, M., & Wesselink, R. (2004). Competence-based VET in the Netherlands: Background and pitfalls. *Journal of Vocational Education and Training*, 56(4), 523-538.
- Bolden, R., Petrov, G. & Gosling, J., 2008. Developing collective leadership in higher education. Leadership Foundation for Higher Education.
- Bowles, S., Gintis, H., & Osborne, M. (2001). Incentive-enhancing preferences: Personality behaviour, and earnings. *American Economic Association Papers and Proceedings*, 91, 155-158.
- Brundrett, M., 2001. The Development of School Leadership Preparation Programmes in England and the USA A Comparative Analysis. *Educational Management & Administration*, 29(2), 229-245.
- Bryman, A. & Lilley, S., 2009. Leadership researchers on leadership in higher education. *Leadership*, 5(3), 331-346.
- Bush, T., 2006. The National College for School Leadership: A Successful English Innovation? *Phi Delta Kappan*, 87(7), 508-511.
- Büyüköztürk, Ş. (2002). *Sosyal Bilimler İçin Veri Analizi Elkitabı*. PegemA Yayıncılık, Ankara.
- Chin, C. O., Gu, J. and Tubbs, S. L. (2001). Developing global leadership competencies. *Journal of leadership studies*, 7(4), 20-31.
- Collinson, D. & Collinson, M., 2011. 'Blended Leadership': Employee Perspectives on Effective Leadership in the UK Further Education Sector. *Educational Leadership: Context, Strategy and Collaboration*, 189.
- Curtis, F. K. S., and de Vries, J. (2011). Developing leadership in nursing: the impact of education and training Elizabeth A. *British Journal of Nursing*, 20(4), 239-249.

- Drago-Severson, E. & Blum-DeStefano, J., 2014. Leadership for transformational learning: a developmental approach to supporting leaders' thinking and practice. *Journal of Research on Leadership Education*, 9(2), 113-141.
- Dugan, J.P. and Komives, S.R., 2007. Developing leadership capacity in college students. *College Park, MD: National Clearinghouse for Leadership Programs*.
- Jokinen, T. (2005). Global leadership competencies: a review and discussion. *Journal of European Industrial Training*, 29(3), 199-216.
- Garcia-Aracil, A., Mora, J. G., & Vila, L. E. (2004). The rewards of human capital competencies for young European higher education graduates. *Tertiary Education and Management*, 10(4), 287-305.
- Geoghegan, L. and Dulewicz, V. (2008). Do project managers' leadership competencies contribute to project success? *Project Management Journal*, 39(4), 58-67.
- Heckman, J. J. (2000). Policies to foster human capital. *Research in Economics*, 54, 3-56.
- Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged children, Science. *Research in Economics*, 312 30 June 2006.
- Heckman, J. J., & Rubinstein, Y. (2001). The importance of noncognitive skills: Lessons from the GED test program. *American Economic Review*, 91(2), 145-149.
- Heckman, J., Stixrud, J., & Urzua, S. (2006). The effects of cognitive and noncognitive abilities on labour market outcomes and social behaviour. *Journal of Labour Economics*, 24(3), 411-482.
- Hornsby, E.E., Morrow-Jones, H.A. & Ballam, D.A., 2012. Leadership development for faculty women at The Ohio State University: The president and provost's leadership institute. *Advances in Developing Human Resources*, 14(1),96-112.
- Iles, P. & Preece, D., 2006. Developing leaders or developing leadership? The Academy of Chief Executives' programmes in the North East of England. *Leadership*, 2(3), 317-340.
- Lleras, C. (2008). Do skills and behaviours in high school matter? The contribution of noncognitive factors in explaining differences in educational attainment and earnings. *Social Science Research*, 37, 888-902.
- Lunsford, L.G. & Brown, B.A., 2016. Preparing Leaders While Neglecting Leadership An Analysis of US Collegiate Leadership Centers. *Journal of Leadership & Organizational Studies*. Sage Publications, doi:10.1177/1548051816662613
- Middlehurst, R., Goreham, H. & Woodfield, S., 2009. Why research leadership in higher education? Exploring contributions from the UK's leadership foundation for higher education. *Leadership*, 5(3), 311-329.
- MEB (2015), <http://yyegm.meb.gov.tr/www/mill-egitim-bakanligi-tarafindan-2015-ylyskapsaminda-511-farkli-alanda-67-ulkeye-1500-burslu-ogrenci-gonderilecektir/icerik/92> [Accessed 1 Jan. 2017].
- Robbins, S., 2013. Educational leadership programmes in the UK: Who cares about the school leader? *Management in Education*, 27(2), 50-55.
- Robins, L., Ambrozy, D. & Pinsky, L.E., 2006. Promoting academic excellence through leadership development at the University of Washington: The Teaching Scholars Program. *Academic medicine*, 81(11), 979-983.

- Ruben, B.D., 2005. The centre for organizational development and leadership at Rutgers University: A case study. *Advances in Developing Human Resources*, 7(3), 368-395.
- Sherman, R. O., Bishop, M., Eggenberger, T. and Karden, R. (2007). Development of a leadership competency model. *Journal of Nursing Administration*, 37(2), 85-94.
- Sipahi, B., Yurtkoru, E. S., and Çinko, M. (2010). *Sosyal bilimlerde SPSS'le veri analizi*. Beta.
- Tabachnick, B. G., Fidell, L. S. and Osterlind, S. J. (2001). *Using multivariate statistics*. NY: Pearsons.
- Tubbs, S. L. and Schulz, E. (2006). Exploring taxonomy of global leadership competencies and meta-competencies. *Journal of American Academy of Business*, 8(2), 29-34.
- Teichler, U. (2007a). Does higher education matter? Lessons from a comparative graduate survey. *European Journal of Education*, 42(1), 11-34.
- Teichler, U. (Ed.) (2007b). *Careers of university graduates. Views and experiences in comparative perspectives, higher education dynamics*, 17(1), NY: Springer.
- Turnbull, S. & Edwards, G., 2005. Leadership development for organizational change in a new UK university. *Advances in Developing Human Resources*, 7(3).396-413.
- Velasco, S.M (2014). Do higher education institutions make a difference in competence development? A model of competence production at university. *Peer Reviewed Journal of Higher Education*, 68(4), 503-523.
- Wadekar, V. (2007). DEVELOPING LEADERSHIP COMPETENCIES. *Services Management*, 171-182.
- Wiek, A., Withycombe, L. and Redman, C.L., 2011. Key competencies in sustainability: a reference framework for academic program development. *Sustainability science*, 6(2), 203-218.
- Wu, W. W., and Lee, Y. T. (2007). Developing global managers' competencies using the fuzzy DEMATEL method. *Expert systems with applications*, 32(2), 499-507.
- Yeager, K.L. & Callahan, J.L., 2016. Learning to Lead: Foundations of Emerging Leader Identity Development. *Advances in Developing Human Resources*, 18(3), 286-300
-