



**DEVELOPING LEADERSHIP QUALITIES IN STUDENTS OF THE MILITARY ACADEMY DURING
THE STUDY OF SPECIALISM-RELATED DISCIPLINES USING A FOREIGN LANGUAGE**

**DESENVOLVER QUALIDADES DE LIDERANÇA EM ESTUDANTES DA ACADEMIA MILITAR
DURANTE O ESTUDO DE DISCIPLINAS RELACIONADAS COM A ESPECIALIDADE UTILIZANDO
UMA LÍNGUA ESTRANGEIRA**

**EL DESARROLLO DE CUALIDADES DE LIDERAZGO EN LOS ESTUDIANTES DE LA ACADEMIA
MILITAR DURANTE EL ESTUDIO DE LAS DISCIPLINAS RELACIONADAS CON LA
ESPECIALIZACIÓN QUE UTILIZAN UN IDIOMA EXTRANJERO**

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Abstract: The purpose of the study was to identify what influence the leadership program delivered in English and using the specialism content has on the Military Academy students' leadership qualities. The study utilised quantitative and qualitative research methods to draw the data from the adapted Leadership Qualities Test for the Military Officers and a semi-structured interview. The pre-intervention measurement of English language level was also performed. The literature review helped identify the variables for the study. These were leadership qualities such as risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features, and a foreign language. The data yielded from the measurements suggested that the leadership programs delivered in English and based on the specialism-related content contributed to fostering the qualities of leadership of the Military Academy students. It was also found that the program enhanced the students' risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features. The above findings were supported by the responses from the focus group interview. The questioned students reported that they generally positively perceived of the program. The reasoning for these perceptions was that it was challenging, practical

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and resourceful. Moreover, the program appeared to be a fruitful experience for them as they learned from distinguished practitioners.

Keywords: Leadership Qualities, Military Students, Military Academy, English-Language-Taught Leadership Programme, Specialism-Related Disciplines.

Resumo: O objetivo do estudo foi identificar a influência do programa de liderança ministrado em inglês e usando o conteúdo de especialização nas qualidades de liderança dos alunos da Academia Militar. O estudo utilizou métodos de pesquisa quantitativa e qualitativa para extrair os dados do Teste de Qualidades de Liderança adaptado para Oficiais Militares e uma entrevista semiestruturada. A mensuração pré-intervenção do nível de língua inglesa também foi realizada. A revisão da literatura ajudou a identificar as variáveis para o estudo. Essas eram qualidades de liderança, como capacidade para assumir riscos e tomar decisões, assertividade, liderança transformacional, desenvoltura, características de personalidade e uma língua estrangeira. Os dados obtidos a partir das medições sugerem que os programas de liderança ministrados em inglês e baseados no conteúdo relacionado à especialidade contribuíram para fomentar as qualidades de liderança dos alunos da Academia Militar. Também foi descoberto que o programa aprimorou as capacidades de tomada de decisão e risco dos alunos, assertividade, liderança transformacional, desenvoltura, características de personalidade. As conclusões acima foram apoiadas pelas respostas da entrevista do grupo de foco. Os alunos questionados relataram que, em geral, perceberam positivamente o programa. O raciocínio para essas percepções era que era desafiador, prático e cheio de recursos. Além disso, o programa parecia ser uma experiência proveitosa para eles como eles aprenderam com profissionais de destaque.

Palavras-chave: Qualidades de Liderança, Estudantes Militares, Academia Militar, Programa de Liderança Ensinada na Língua Inglesa, Disciplinas Relacionadas à Especialidade.

Resumen: El propósito del estudio fue identificar qué influencia tiene el programa de liderazgo impartido en inglés y el uso del contenido de especialización en las cualidades de liderazgo de los estudiantes de la Academia Militar. El estudio utilizó métodos de investigación cuantitativos y cualitativos para extraer los datos de la Prueba de Cualidades de Liderazgo adaptada para los Oficiales Militares y una entrevista semiestruturada. También se realizó la medición previa a la intervención del nivel de idioma inglés. La revisión de la literatura ayudó a identificar las variables para el estudio. Estas fueron las cualidades de liderazgo como la asunción de riesgos y la capacidad de toma de decisiones, asertividad, liderazgo transformacional, ingenio, características de personalidad, y un idioma extranjero. Los datos resultantes de las mediciones sugirieron que los programas de liderazgo entregados en Inglés y basadas en el contenido especialidad relacionada contribuido a fomentar las cualidades de liderazgo de los estudiantes de la Academia Militar. También se encontró que el programa ha mejorado la toma de riesgos de los estudiantes y la capacidad de toma de decisiones, asertividad, liderazgo transformacional, ingenio, características de personalidad. Los hallazgos anteriores fueron respaldados por las respuestas de la entrevista del grupo focal. Los estudiantes interrogados informaron que, en general, percibían positivamente el programa. El razonamiento de estas percepciones fue que era desafiante, práctico e ingenioso. Además, el programa pareció ser una experiencia fructífera para ellos, ya que aprendieron de distinguidos practicantes.

Palabras clave: Cualidades de liderazgo, estudiantes militares, academia militar, programa de liderazgo enseñado en inglés, disciplinas relacionadas con la especialización.



1 INTRODUCTION

The army leadership is a unique phenomenon which is based on the leadership philosophy known as a Be, Know, and Do Leadership Doctrine (Hesselbein et al., 2010; Reuter, 2016). This requires the officer to Be courageous which means that the one is supposed to be capable to take reasonable risks, make instant decisions, and communicate them to the subordinates in a respectful manner. The officer is also expected to be a competent leader (Know) which means that the one is seen as a resourceful individual in-field military crafts, tactics, and communication. The army officers are supposed to act (Do) to accomplish the mission using both themselves and their subordinates as a tool or a weapon or self-sacrifice.

The higher education institutions, and in particular military institutions, are meant to provide the opportunities to the students to develop their leadership qualities. Those opportunities could be activities or courses or programmes delivered through different modes (conventional, in-field, blended or online) and using different instructional approaches such as facilitation, tutoring, coaching, supervising or just guidance (Aymoldanovna et al., 2015; Badrakhan, 2018; Peterson, 2020; Ramos-Villarreal & Holland, 2011).

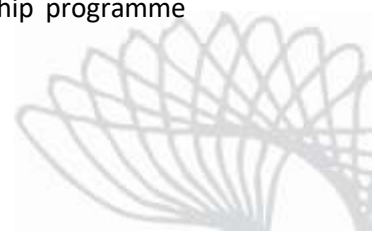
The literature sources that were reviewed for the study reveal the problem of developing leadership qualities in the students, and this concerns military students as well, from four perspectives such as the key roles of leaders, their behaviours and attitudes, their personal traits (character features) and interpersonal skills. There was found the pedagogical and psychological research. Some studies reveal the development of leadership qualities in relation to the performance of certain duties (roles) requiring such skills as negotiation, mentoring, or advising. For example, the common pedagogical strategy that is used by the instructors is assigning some (randomly selected) students to be assistants to the other students, to help them with their studies (Davies & Davies, 2010). There were found the studies that highlighted the development of the behaviours and attitudes in the students (Mendenhall et al., 2020; Morrissette, 2008). For example, Mendenhall et al. (2020) proved the effectiveness of cognitive behaviour therapy (CBT), stating that leadership is more about behaviour than about knowledge and skills. This methodology is revealed as the one of great potential in enhancing global leadership competencies through changing the students' actions and their perception of the action of the others.

There were found the studies examining the development of the personal traits (character features) and interpersonal skills as the domain of the leadership (Lucas, 2019; Panait, 2017). Both traits and skills are commonly developed in higher educational institutions by involving the students in the process of the audit of the educational system and shaping it. Additionally, the character of the students is developed by assigning them with challenging tasks during the whole period of their study and by motivating them in any way to succeed in their academic results (Clark, 2017; Parlar, Türkoğlu & Cansoy, 2017; Peck, 2018).

Though the problem of students' leadership qualities seems well studied in general, it is under-revealed and under-presented in the military education context, especially in Ukraine and using a foreign language.

The purpose of the study was to identify how the English-language-taught leadership programme based on the content and structure of the specialism-related disciplines influenced the leadership qualities of the students of the Military Academy.

The research questions were as follows: 1) to identify what changes took place in the leadership qualities of student officers due to the English-language-taught leadership programme



based on the content and structure of the specialism-related disciplines; 2) to identify how the students perceived the programme.

2 METHODS AND MATERIALS

The study relies on quantitative and qualitative methods to collect data through the adapted Leadership Qualities Test for the Military Officers (LQT) (see Appendix A) and a semi-structured interview. The English language placement test was used in the pre-testing stage to identify whether the sampled students of the experimental and control group were homogeneous and could be involved in the English-language-taught programme based on the content and structure of the specialism-related disciplines that was specifically designed to develop leadership qualities. The variables for the study were leadership qualities such as risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features, and a foreign language.

Research design

This was a quasi-experimental research conducted at the departmental level. It was initiated by the Department of Airborne Force Training for the Odessa Military Academy (Ukraine) in 2018. The methodology of the experiment was approved by the Department of Humanities and Socio-Economic Studies and the Board of Academics. The study was intended to update the practice of developing leadership qualities in pre-service military officers of the Academy when they did the English-language-taught leadership programme. The study was organised and conducted as a flow of three-stages (see Figure 1). Those were as follows: first, the investigative and preparatory stage that was intended to examine relevant best practices of developing leadership qualities in pre-service military officers and to design the English-language-taught project of training the leadership qualities; second, the implementation stage that was aimed at pre-testing of the leadership qualities in the sampled students, treating them through the English-language-taught programme to develop their leadership qualities, measuring the impact through the post-testing, and the focus group interview used in the procedure of data collection; third, the analyses and interpretation stage that was dedicated to analysing quantitative and qualitative data and formulating conclusions and recommendations. The expert in psychology (Sergey Markov, Ph.D. in Psychology, the founder of Genius Revive community) was hired to counsel and assist in the adaptation of the Leadership Qualities Test and to validate it.



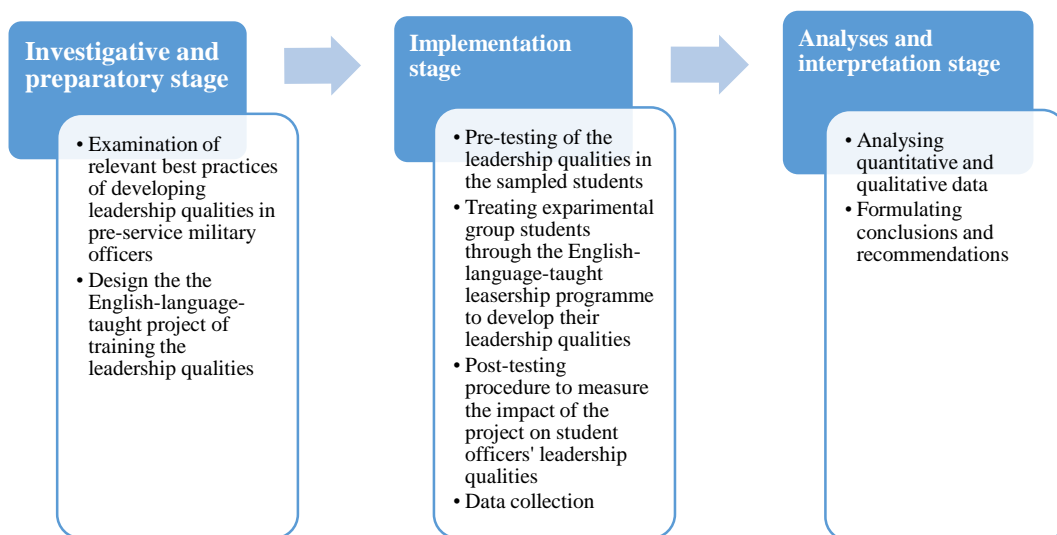


Figure 1. The three stages-based design of the research

Brief description of the English-language-taught leadership programme based on the content and structure of the specialism-related disciplines.

The programme was supposed to be a challenge for the students and to last one year to complete. Those who successfully completed it were awarded a higher rank.

Format: Online and 6 weeks of face-to-face mode (boot camp mode of leadership training)

Period: September 2018 – June 2019

Language: English

The programme was delivered by leadership theorists and practitioners (see Table 1). It relied on the skills of field crafts, in-unit training, and military education.

Table 1. The outline of the topics/modules of the English-language-taught programme

#	Topic/Module	Mode		Hours
		Online	Face-to-face	
1	Strategic leadership	✓	✓	6
2	Strategic planning	✓	✓	6
3	Thinking critically and rationally	✓	✓	26
4	Positive psychological training thinking	✓		8
5	Accelerating your leadership impact		✓	6

6	Leading by example in thought, word, and deed		✓	14
7	Training in team-building	✓	✓	6
8	Strategies of persuasion and negotiation		✓	14
9	Public speaking and debating	✓	✓	24
10	Building trustful and supportive environment of the unit		✓	8
11	Scoping the landscape of leadership in the unit (squad).	✓		4
12	Production of a researched and providing a solution-to-the-problem-purpose paper on a relevant leadership topic/issue.	✓		68
<i>Total hours:</i>				190

Sampling

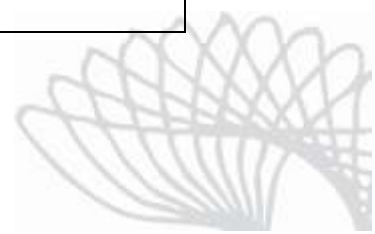
The study used convenience sampling to form the experimental and control group. This technique was utilised because the student population of the Military Academy was strictly regulated by rules and daily schedule which meant the EG and CG could only comprise several squads of 10 student soldiers each. Therefore, three squads of 10 student

soldiers (30 male students, aged 20-21) formed the EG and another three squads (30 male students, aged 20-21) formed the CG respectively.

The English language placement test (ELPT) and adapted Leadership Qualities Test for the Military Officers (LQT) were used to ensure the relative homogeneity of both groups. The pre-test mean values for both tests are presented in Table 2.

Table 2. Pre-test results of measurements yielded from ELPT and LQT

Test	Group	μ	σ	Margin of Error	p – value*
T ELP (ECTS grades)	EG ($n = 30$)	82.2	9.73	82.26±3.4 8 (±4.23%)	4 .00007
	CG ($n = 30$)	82.5	10.2	82.50±3.6 6 (±4.44%)	1 <.0000
LQT	EG ($n = 30$)	2.8	1.10	2.8±0.39 (±14.15%)	2 .00466



	CG (n = 30)	3.03	1.16	3.03±0.41 (±13.79%)	.00266 9
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Note: μ – Mean; σ - Standard Deviation. *The result for p-value is significant at $p < .05$

As can be seen in Table 2, the mean values for both groups in both tests were approximately the same which suggested that the EG and CG were relatively homogeneous and could participate in the experiment.

In the post-treatment stage, 8 students from the EG were randomly selected to participate in the semi-structured interview.

Instruments

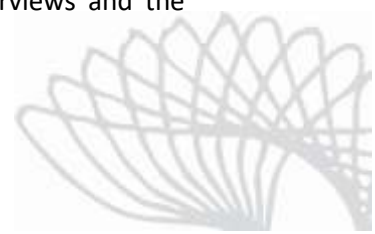
The Leadership Qualities Test for the Military Officers (LQT) and the semi-structured interview questionnaire were the instruments used in the post-treatment stage. IBM SPSS Statistics Software of version 25.0.0.1 was used to process the data.

The LQT was adapted from such tests and sources as the Mettl Leadership Assessment Test that is available at: <https://mettl.com/en/test/leadership-qualities-assessment/>, the Leadership Skills Test that can be accessed via <https://testyourself.psychtests.com/testid/2152>,

Leadership Test (Psychometric Test) that can be accessed through the following link: <https://www.psychometrictest.org.uk/leadership-test/>, and FM 6-22 (2015) 'Leader Development'. The test consisted of 43 questions covering such leadership qualities as risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features. It relied on a 5-point Likert scale with '1' referring to 'very inaccurate', with 2 meaning 'moderately inaccurate', with 3 to be interpreted as 'neither accurate nor inaccurate', 4 indicating 'moderately accurate', and 5 meaning 'very accurate'. The Content Validity Index (CVI) analysis was performed by five experts in Psychology and Education (Pedagogics) to measure the validity of the LQT (Yusoff, 2019). They rated the degree of agreement in the CVI template and each question in the LQT received the value that was greater than 0.86. The test was also piloted amongst 20 students who shared the same characteristics as the sampled ones. Cronbach's Alpha value for the constructs was between 0.88 and 0.86 which meant that the adopted for research test was fit for purpose (Taber, 2018).

The semi-structured interview questionnaire for the focus group (n=8)

The semi-structured interview questionnaire included 4 open-ended questions. The strategy of interview administration was adopted from Krueger and Casey (2015). The strategy used a stage-wise questioning method based on a deductive hierarchy of questions that starts with questions to build rapport. They are followed by general questions to introduce the topic of concern. Then, the interviewer was supposed to move on to the more specific questions. It was finished by thanking the student for participating. The research team performed the content and discourse analyses of the questionnaire to ensure its validity and reliability. To avoid the interview bias, three teachers from other institutions were hired to conduct the interviews. The interviews took place in a library during lunchtime so that the interviewees were not distracted or overheard by their peers. The interviewers dedicated between 10 to 15 minutes per each interview. They recorded the interviews and the



research team then transcribed them. When an additional explanation was needed, the interviewers asked several follow-up open-ended questions. The research team performed the thematic analysis of the words and sentence structures to extract the themes. The Raven's Eye software which is available via the link: <https://ravens-eye.net/product/> was used to assign the codes to the emerged themes and to process responses.

1. What do you feel about the English-language-taught programme? Provide your reasoning.
2. How did you benefit from the educational experience of this kind? Provide examples.
3. What experiences related to participation in the programme caused you to get disappointed? Support your view with examples or experiences.
4. What would you suggest improving in the programme so that it was more efficient? Suggest your reasoning.

3 RESULTS

Overall, positive changes were observed in the EG students after completing the English-language-taught leadership programme. These changes were proved by the results of the post-treatment measurement results based on the LQT and the focus group semi-structured interview. The post-treatment measurement results based on the LQT are presented in Table 3.

Table 3. The post-treatment measurement results based on the LQT

Test	Group	Pre-treatment		Post-treatment		t-value*	SS	p-value*
		μ	σ	μ	σ			
LQT	E	2.8	.10	3.93	.08	19.35	.03	<.0001
	C	3.03	.16	3.26	.20	32.38	.00	<.0001

Note: μ – Mean; σ - Standard Deviation. * The result is significant at $p < .05$

The EG group students (n=30) who participated in the English-language-taught leadership programme based on the content and structure of the specialism-related disciplines performed a more significant improvement in their leadership qualities of the military people such as risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features ($\mu=3.93, SS=0.03$) compared to the EG students ($\mu=3.26, SS=0.00$), who demonstrated significantly higher scores in the t-test ($t=-19.35286; p= <.00001$).



The correlations between the leadership qualities were also examined to address the relationship between the programme and the qualities. The descriptive statistics is presented in Table 4.

Table 4. Descriptive statistics presenting the correlations between the leadership qualities and the programme

Qualities	1	2	3	4	5
1. RT & DM	1.00				
2. A	.41**	1.00			
3. TL	.69**	.43**	1.00		
4. R	.79*	.74**	.83*	1.00	
5. PF	.54*	.85*	.92*	.84*	1.00
Mean (Likert type mean score)	74.13 (4.11)	88.98 (4.37)	93.91 (3.75)	140.03 (5.00)	17.37 (3.47)
<i>SD</i>	11.70	24.29	9.12	5.67	3.97

Note: RT&DM - Risk-taking and decision-making capabilities; A – Assertiveness; TL - Transformational leadership; R – Resourcefulness; PF- Personality features; *p > .05. **p < .01

As can be seen in Table 4, there are positive and significant correlations between RT & DM, A, TL, R, and PF values. The most significant positive relationship can be observed between TL and PF ($r=.92$, $p> .05$). the second considerable positive relationship is found between PF and A ($r = .85$, $p> .05$). The third most noticeable positive relationship was between PF and R ($r = .84$, $p>.05$). The greatest effect occurred in the EG students’ resourcefulness according to the Mean values of Likert type mean score (140.03 (5.00)) and this quality might be considered to be the key leadership quality. Those positive correlations imply that the English-language-taught leadership programme based on the content and structure of the specialism-related disciplines brought a more significant improvement in the leadership qualities of the EG students such as risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features than in the CG students.

The effectiveness of the programme was also confirmed by the figures obtained from the calculations performed using the effect size calculator for the t-test. The Effect Size Calculator can be accessed through the link: <https://www.socscistatistics.com/effectsize/default3.aspx>.

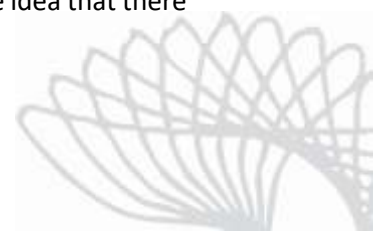
$$\text{Cohen's } d = (3.26 - 3.93) / 1.095536 = 0.611573.$$

$$\text{Glass's } \delta = (3.26 - 3.93) / 0.98 = 0.683673.$$

$$\text{Hedges' } g = (3.26 - 3.93) / 1.095536 = 0.611573.$$

The results of the focus group interview (n=8)

Question 1. All respondents positively characterised the programme. They stated that it was challenging, practical, and resourceful. The reasoning of the students was based on the idea that there



was a lot of teamwork, responsivity for themselves and other team members in the programme which is good for their future job. Some assignments caused emotional exhaustion.

Question 2. Six students reported that this programme was a fruitful experience for them as they learned from best practitioners. For example, building a trustful and supportive environment of the unit they were supervised and provoked by the supervisors to let someone from the team down. This was followed by the personal feedback and examples of actions of real soldiers. Two respondents mentioned that they strengthened their self-esteem and character. For instance, they became better at time management and decision-making.

Question 3. Five participants confessed that there were too much pressure and too tight deadlines. For example, when they did their research projects, they just had several weeks to complete them. Three students claimed that positive thinking psychological training was irrelevant to their job. It makes the soldiers too soft.

Question 4. Four students suggested replacing research assignments with in-field activities. Their common reasons were as follows:

[...paperwork is not the soldier's trade...]

[...research is a waste of time...]

[...it does not deserve taking that much time...]

The other four EG students suggested training them more in resilience as they under pressure all time and need to know how to get rid of stress.

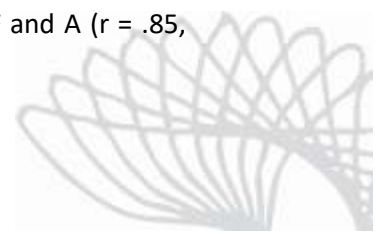
Limitations of the study

The sampling technique and one institution involved in the study might be regarded as the limitation of this study.

4 DISCUSSION

The study attempted to identify what changes took place in the leadership qualities of student officers due to the English-language-taught leadership programme based on the content and structure of the specialism-related disciplines and how the students perceived the programme. The novelty of the study lies in the introduction of the more flexible and more student-centered programme relying on a blended mode of study into the conventional military education format.

It was found that the programme brought positive changes to the students' leadership qualities. For example, the EG group students (n=30) who participated in the English-language-taught leadership programme performed a more significant improvement in their leadership qualities of the military people such as risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features ($\mu=3.93, SS=0.03$) compared to the EG students ($\mu=3.26, SS=0.00$), who demonstrated significantly higher scores in the t-test ($t= -19.35286; p= <.00001$). Due to the programme, positive and significant correlations occurred between RT & DM, A, TL, R, and PF values. The most significant positive relationship could be observed between TL and PF ($r=.92, p> .05$). the second considerable positive relationship was found between PF and A ($r = .85,$



$p > .05$). The third most noticeable positive relationship was between PF and R ($r = .84, p > .05$). The resourcefulness seems to be the key leadership quality according to the Mean values of Likert type mean score. Those positive correlations imply that the English-language-taught leadership programme brought a more significant improvement in the EG group's leadership qualities such as risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features than in the CG students who received a conventional training.

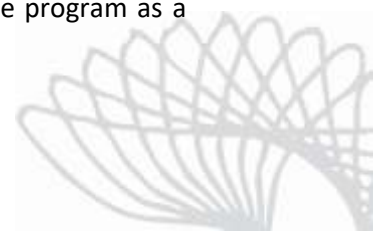
The respondents, who participated in the focus group interview, positively characterised the programme. They stated that it was challenging, practical, and resourceful. The reasoning of the students was based on the idea that there was a lot of teamwork, responsibility for themselves and other team members in the programme which is good for their future job. They also described the programme as a fruitful experience for them as they learned from best practitioners.

The results of the study are consistent with the relevant literature. It goes in line with McCown (2010) stating that students have few opportunities to obtain the first-hand experience of leadership in the field and they need the framed situations to gain experience of decision-making and risk-taking in safe conditions. It also agrees with the previous research conducted by Enlow and Popa (2008) and Yujuan and Hai (2019) revealing the importance of ethics and moral in leadership and considering imagination a key skill. The results obtained in the study are also consistent with views of the developers of the degree programmes for the British Army at Henly Business School (it can be accessed via the link: <https://www.henley.ac.uk/news/2017/ahep>). They are confident that the programme should be flexible and innovative and it should be delivered via both face-to-face and online classes including interactive sessions, virtual environments, and self-paced learning.

The study contributed to the investigation of the problem of using leader development programmes to develop leadership qualities and competencies in the tertiary students and the students of the military academy as well (Crissman, 2013; Hardaway, 2012; Panait, 2017; Seemiller, 2016; Tight, 2019).

5 CONCLUSION

The development of leadership qualities in military students is the task of the utmost significance as the in-service officers are supposed to carry out the missions in a well-organized modus operandi [way, manner], lead the subordinates to the right direction, make vitally important decisions, take responsibility for their actions. The study found that the English-language-taught leadership programs based on the content and structure of the specialism-related disciplines influenced the leadership qualities of the students of the Military Academy. Due to the program, the students enhanced their risk-taking and decision-making capabilities, assertiveness, transformational leadership, resourcefulness, personality features. The greatest effect occurred in the EG students' resourcefulness which was proved by the Mean values of Likert type mean score (140.03 (5.00)) and this quality might be considered to be the key leadership quality. The positive effect of the program was also confirmed by the figures obtained from the calculations of Cohen's $d = (3.26 - 3.93) / 1.095536 = 0.611573$, Glass's $\delta = (3.26 - 3.93) / 0.98 = 0.683673$, and Hedges' $g = (3.26 - 3.93) / 1.095536 = 0.611573$. The focus group students' perception of the program was generally positive. They liked it because it was challenging, practical and resourceful for them. The reasoning of the students was based on the idea that there was a lot of teamwork, responsibility for themselves and other team members in the program which is good for their future job. They also described the program as a



fruitful experience for them as they learned from best practitioners. Further studies are needed in the adaptation of the distance learning leadership programs to the military context of higher education.

6 RECOMMENDATIONS

The programmes of the type which was designed and used in the study should involve both the professionals in the leadership theory and practice. It should be flexible and based on the skills of field crafts, in-unit training, and military education. The training should be based on framed situations because these provide the students with the first-hand experience of leadership like that of decision-making and risk-taking in safe conditions.

7 ACKNOWLEDGEMENT

We are pleased to express our thankfulness to all experts, programme designers, interviewers, participants, and all other people involved who assisted or facilitated this study so that it could run smoothly.

REFERENCES

- Aymoldanovna, A. A., Zhetpisbaeva, B. A., Kozybaevna, K. U., & Kadirovna, S. M. (2015). Leadership development university students in the activities of student government. *Procedia – Social and Behavioral Sciences*, 197, 2131-2136. <https://doi.org/10.1016/j.sbspro.2015.07.336>
- Badrakhan, S. S. (2018). Impact of king abdullah 2nd fund programmes for development to enhance leadership skills among students of Al-Ahliyya Amman University in Jordan. *Journal of Educational & Psychological Sciences*, 19(3), 571-600. <https://doi.org/10.12785/jeps/190320>
- Brito, C. D. A., & Nunes, C. P. (2020). The intensification of teaching work in the context of the commercialization of higher education in Brazil. *Journal of Research and Knowledge Spreading*, 1(1), 1-17.
- Clark, D. (2017, January 3). *Developing leadership qualities in the classroom through SEL* [Blog Post]. Retrieved from <https://www.gettingsmart.com/2017/01/developing-leadership-qualities-through-sel/>
- Crissman, D. C. (2013). Improving the leader development experience in army units. *Military review*, 93, 6. <https://doi.org/10.21236/ada592765>
- Dashti, E. (2020). Examining the relationship between unwillingness to translate and personality type of Iranian translation students. *Journal of Research and Knowledge Spreading*, 2020, 1(1), 1-10.
- Davies, B., & Davies, B. J. (2010). Developing a strategic leadership perspective. In B. Davies & M. Brundrett (Eds.), *Developing Successful Leadership. Studies in Educational Leadership*, 11. Dordrecht: Springer. https://doi.org/10.1007/978-90-481-9106-2_2



- Dias, A. F. (2020). Trans* escrituras e a pedagogical power. *Journal of Research and Knowledge Spreading*, 1(1), 1-17.
- Enlow, B. K. & Popa, A. B. (2008). Developing moral imagination in leadership students. *Journal of Leadership Education*, 7(2), 24-31. <https://doi.org/10.12806/v7/i2/ab1>
- FM 6-22. (2015). *Leader development*. Washington, DC: Headquarters Department of the Army. Retrieved from https://www.milsci.ucsb.edu/sites/secure.lsit.ucsb.edu.mili.d7/files/sitefiles/fm6_22.pdf
- Fullagar, S. (2019). A physical cultural studies perspective on physical (in)activity and health inequalities: the biopolitics of body practices and embodied movement. *Revista Tempos e Espaços em Educação*, 12(28), 63-76.
- Hardaway, J. M. (2012). *Strategic leader development for a 21st century army*. CreateSpace Independent Publishing Platform. <https://doi.org/10.21236/ada484881>
- Hesselbein, F., General Shinseki, E. K., & Cavanagh, R. (2010). *Be*Know*Do: Leadership the army way*. New York: Leader to Leader Institute.
- Krueger, R. A., & Casey, M. A. (2015). *Focus group: A practical guide for applied research* (5thed.). Thousand Oaks: SAGE Publishing.
- Lucas, B. (2019). Developing the personal qualities required for effective nurse leadership. *Nursing Standard*, 34(12), 45-50. <https://doi.org/10.7748/ns.2019.e11274>
- McCown, N. R. (2010). *Developing intuitive decision-making in modern military leadership: Report*. Newport: Naval War College. <https://doi.org/10.21236/ada535417>
- Mendenhall, M. E., Burke-Smalley, L. A., Arnardottir, A. A., Oddou, G. R., & Osland, J. S. (2020). Making a difference in the classroom: Developing global leadership competencies in business school students. In *Research Handbook of Global Leadership* (pp. 330-349). Cheltenham, UK: Edward Elgar Publishing. <https://doi.org/10.4337/9781782545354.00030>
- Morrisette, J. (2008). *Developing effective leadership behavior: The paradox of professional will and personal humility*. Deerfield: Trinity Evangelical Divinity School.
- Panait, C. (2017). Developing leadership skills. Identifying leadership qualities and attributes. *Review of the Air Force Academy*, 1(33), 167-172. <https://doi.org/10.19062/1842-9238.2017.15.1.22>
- Parlar, H., Türkoğlu, M. E., & Cansoy, R. (2017). Leadership development in students: Teachers' opinions regarding activities that can be performed at schools. *Universal Journal of Educational Research* 5(2), 217-227. <https://doi.org/10.13189/ujer.2017.050207>
- Peck, A. (2018). Mapping career-ready skills through student leadership programs. *New Directions for Student Leadership*, 157, 71-83. <https://doi.org/10.1002/yd.20280>
- Peterson, P. (2020). *Cross-sector leadership: The development of leadership skills* [Streaming video]. Retrieved from <https://sk.sagepub.com/video/cross-sector-leadership-the-development-of-leadership-skills>
- Ramos-Villarreal, J., & Holland, G. (2011). University students development of emotional intelligence skills for leadership. *American Journal of Business Education*, 4(3), 47-54. <https://doi.org/10.19030/ajbe.v4i3.4112>



- Reuter, M. (2016). *Be-Know-Do model of leadership* [Blog Post]. Retrieved from <https://threeminuteleadership.com/2016/05/01/be-know-do-model-of-leadership/>
- Seemiller, C. (2016). Leadership competency development: A higher education responsibility. *Reclaiming Higher Education's Purpose in Leadership Development*, 174, 93-104. <https://doi.org/10.1002/he.20192>
- Silva, T. O., & Rios, P. P. (2020). Gender, sexual diversity and field education: “in rural communities many people do not understand and treat it as a disease. *Journal of Research and Knowledge Spreading*, 1(1), 1-12.
- Taber, K. S. (2018). The use of Cronbach’s Alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48, 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Tight, M. (2019). Mass intellectuality and democratic leadership in higher education. *Higher Education Research & Development*, 38(1), 202-204. <https://doi.org/10.1080/07294360.2018.1493772>
- Yujuan, W., & Hai, L. (2019). Moral leadership and unethical pro-organisational behaviour: A moderated mediation model. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.02640>
- Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Education in Medicine Journal*, 11(2), 49–54. <https://doi.org/10.21315/eimj2019.11.2.6>

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Received on: 08-05-2020

Approved on: 11-28-2020

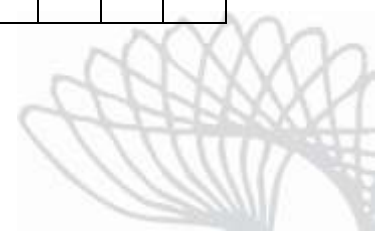
Published on: 12-14-2020



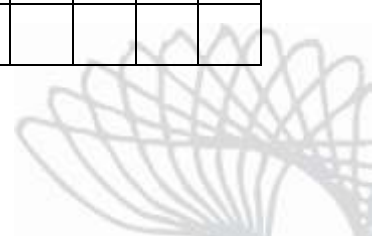
Appendix A

Leadership Qualities Test for the Military Officers (adapted from Mettl Leadership Assessment Test that is available at: <https://mettl.com/en/test/leadership-qualities-assessment/>, Leadership Skills Test that can be accessed via <https://testyourself.psychtests.com/testid/2152>, Leadership Test (Psychometric Test) that can be accessed through the following link: <https://www.psychometrictest.org.uk/leadership-test/>, and FM 6-22 (2015) 'Leader Development'.

Army leader attributes & competencies	Question		5-point Likert scale				
			1	2	3	4	5
Risk-taking and decision-making capabilities (personal courage, integrity & responsibility)	1	I plan ahead and prepare for either outcome so that the consequences of risk-taking could be minimised.					
	2	I remain calm and relaxed in situations in which most people would become fearful, upset, or stressed.					
	3	Before I make the decision, I try to predict the factors that could have an impact on the outcome.					
	4	Before I make the final decision, I make certain that I have a Plan B in case something goes wrong.					
	5	I am certain that rules are meant to be broken.					
	6	If I had to choose, I would prefer risky decisions to the others it brings a greater potential payoff.					
	7	Home/life insurance is a waste of money.					
	8	I often over-limit the speed limit when driving.					
Assertiveness (capabilities to persuade others to succeed, to express their opinions confidently)	9	I can speak loudly in protest when someone says mean things.					
	10	I always take initiative.					
	11	I know how to charm people.					
	12	I easily get engaged in any argument and strive to win in it.					



	13	I can be rude to persuade people.					
	14	I get never intimidated.					
	15	I easily articulate ideas.					
	16	I can criticise or blame others easily.					
Transformational Leadership (capabilities to inspire, motivate and challenge the subordinates)	17	I have a “helicopter view” of any solution and can delegate the right people with the right functions.					
	18	I always draw the attention of others to myself.					
	19	I demand people do their best.					
	20	I delegate unpleasant tasks to others.					
	21	I praise people for their good job.					
	22	I set myself as an example.					
	23	I show a lot of enthusiasm when doing things.					
	24	I turn my peoples’ failures into their experiences.					
Resourcefulness (capabilities to lead, develop and achieve)	25	I always develop my people by assigning them with a slightly more difficult task each time.					
	26	I turn plans into action.					
	27	I set standards for myself and others.					
	28	I never blame people for not knowing something.					
	29	I engage people in training each other.					
	30	I encourage people to share their experience and knowledge with other team members.					
	31	I am never judgmental of peoples’ opinions.					
	32	I sometimes force people to do what is necessary rather than what is reasonable.					
Personality features	33	I never procrastinate or postpone things to do.					
	34	I always appeal to peoples’ reasoning.					



	35	I do yoga or meditations or other physical activities to recover.					
	36	I never feel the first instance when military tactics are designed by the team.					
	37	Death is my trade.					
	38	I am flexible in my decisions and relationships with others.					
	39	I always put people and resources to work in the most efficient ways.					
	40	I train people to function independently.					
	41	I give the priority to the service before self.					
	42	I constantly study and physically train myself.					
	43	I am ready to sacrifice my life for the well-being of my country.					

Note: 1 – very inaccurate; 2 – moderately inaccurate; 3 - neither accurate nor inaccurate; 4 – moderately accurate; 5 – very accurate.

