

MOTIVATIONAL ASPECTS IN CONSCRIPT TRAINING AND THEIR IMPACT ON LEARNING OUTCOMES AND ATTRITION

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ABSTRACT. The study behaviour of conscripts, which includes attrition and efficacy of training, has been topical in the last decade because a proportion of potential soldiers are left without training each year due to being prematurely discharged from service. Motivational aspects such as the perception of autonomy, self-efficacy, appreciation of training, and intention to quit are factors that may have an impact on the productivity of training. This study¹ was conducted among conscripts drafted to the Kuperjanov Infantry Battalion and its objective was to determine the relationship that the perception of autonomy has with self-efficacy, appreciation of training, and intention to quit, as well as the relationship of these aspects with learning outcomes and attrition, using a method of repeated inquiry. The results indicate that a greater perception of autonomy supports later self-efficacy and reduces intention to quit but does not support a later appreciation of training. Greater perception of autonomy was related to better learning outcomes and decreased the likelihood of attrition. Consequently, it is possible to prevent the under-achievement and dropping out of conscripts by purposefully encouraging their training motivation and taking into consideration the combined impact of the motivational aspects studied herein.

Keywords: perception of autonomy, self-efficacy, appreciation of training, drop-out intention, conscripts, learning outcomes, attrition

1. Introduction

The perception of autonomy, self-efficacy, and appreciation of training are important aspects of learning motivation (hereinafter motivational aspects) that can help to explain why some students achieve great results while others, on the contrary, prefer to quit². Autonomy is a basic human need; if it is

¹ This article was originally written in Estonian and first published in the Estonian Journal of Military Studies (Sõjateadlane), No. 18 (2021), pp. 47–85.

² **Anderman, E. M.; Dawson, H.** 2011. Learning with Motivation. – Mayer, R. E.; Alexander, P. A. (eds.). Handbook of Research on Learning and Instruction. New York and London: Routledge Taylor & Francis Group, p. 223. [**Anderman, Dawson** 2011]

sufficiently satisfied during studies, a person will have a sense of control over his or her study activities and act upon internal motivation³. Another main motivational aspect besides perception of autonomy is self-efficacy, meaning the internal conviction that a person can manage or is able to accomplish something⁴. The third motivational aspect used in this analysis is appreciation of training, which is a subjective view of a person of the importance and value that studying has for his or her personal goals⁵.

It is important to put these motivational aspects into use in education because they can impact the commitment and interest of a student, his or her preparedness to learn, and the intention to quit⁶. In this analysis, these aspects are approached in a complex manner in the context of conscript training and their mutual impact is determined using a method of repeated inquiries. The aforementioned aspects of learning motivation have separately been subject to a number of studies but analysis of a combination of them to obtain additional understanding and explanation is rarer.

Students who consider quitting are more likely to actually terminate their studies, whereas quitting largely depends on the beginning of studies, a period when students must adapt to a new learning environment and living arrangements⁷. Furthermore, a person can terminate his or her studies or be an under-achiever for a number of other reasons deriving from factors outside of studies, for example, social economic aspects (a person is busy going

³ **Ryan, R. M.; Deci, E. L.** 2017. Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness. New York: The Guilford Press, pp. 97–98. [**Ryan, Deci** 2017]

⁴ **Bandura, A.** 1997. Self-Efficacy. The Exercise of Control. New York: W. H. Freeman and company, p. 3. [**Bandura** 1997]

⁵ **Eccles, J. S.; Wigfield, A.** 2002. Motivational beliefs, values, and goals. – Annual Review of Psychology, Vol. 53(1), pp. 118–119. [**Eccles, Wigfield** 2002]

⁶ **Hardré, P. L.; Reeve, J.** 2003. A motivational model of rural students' intentions to persist in, versus drop out of, high school. – Journal of Educational Psychology, Vol. 95(2), pp. 354–355; [**Hardré, Reeve** 2003] **Vallerand, R. J.; Fortier, M. S.; Guay, F.** 1997. Self-Determination and Persistence in a Real-Life Setting: Toward a Motivational Model of High School Dropout. – Journal of Personality and Social Psychology, Vol. 72(5), p. 1172. [**Vallerand, Fortier, Guay** 1997]

⁷ **Truta, C.; Parv, L.; Topala, I.** 2018. Academic engagement and intention to drop out: Levers for sustainability in higher education. – Sustainability, Vol. 10(12), 4637, pp. 7–8; **Nelson, K. J.; Duncan, M. E.; Clarke, J. A.** 2009. Student success: The identification and support of first year university students at risk of attrition. – Studies in Learning, Evaluation, Innovation and Development, Vol. 6(1), p. 1.

to work, raising children, etc.)⁸, as well as from learning activities and their organisation. The organisational side of studies is related to emotional issues, lack of interest⁹, and difficulties adjusting to a new environment¹⁰.

There is a relatively large proportion of conscripts in the Estonian Defence Forces as well who choose to terminate training (i.e., are subject to attrition), most often for health issues or psychological and behavioural disorders¹¹ that, in turn, are intrinsically related to difficulties in adjustment¹² and a negative experience of training¹³. Previous research has also revealed that the motivation of conscripts tends to reduce during conscription¹⁴. This results in a proportion of conscripts not finishing conscription, which means that they are unable to obtain the necessary training and cannot be involved in future national defence as initially planned. This is a problematic situation because it affects the integrity of reserve units and rotation plans and, therefore, directly affects the sustainability and development of national defence capabilities. The underlying reason behind learning difficulties and under-achieving may, however, be rooted in an environment that fails to arouse motivation, not in difficulties of adjustment.

Since circumstances outside of training are not necessarily controlled by instructors of the Defence Forces, it would be more beneficial to design a learning environment that motivates conscripts to participate in training. Therefore, the objective of this study conducted among conscripts drafted into the Kuperjanov Infantry Battalion was to determine the relationship that the perception of autonomy has to self-efficacy, appreciation of training, and

⁸ **Ots, A.; Leijen, Ä.; Pedaste, M.** 2012. The relationship between doctoral students' progress in studies and coping with occupational and family responsibilities. – Mikk, J.; Luik, P.; Veisson, M. (eds.). *Lifelong Learning and Teacher Development*. Tartu: University of Tartu, pp. 143–144. [**Ots, Leijen, Pedaste** 2012]

⁹ **Must, O.; Must, A.** 2017. Kõrgkoolist väljalangevus ja üliõpilase enesemääratlus. – *Sõjateadlane*, No. 4, pp. 247 – 248. [**Must, Must** 2017]

¹⁰ **Kerby, M. B.** 2015. Toward a new predictive model of student retention in higher education: An application of classical sociological theory. – *Journal of College Student Retention: Research, Theory & Practice*, Vol. 17(2), pp. 155–156. [**Kerby** 2015]

¹¹ **Kaitseministeerium** 2019. Aruanne kaitseväekohustuse täitmisest ja kaitseväeteenistuse korraldamisest 2018. aastal. Tallinn: Kaitseministeerium, p. 20. [**Kaitseministeerium** 2019]

¹² **Truusa, T.-T.; Talves, K.** 2018. What if They Forgot Who I Am? Fears of Estonian Conscripts in Connection with the Service. – *Sõjateadlane*, Vol. 6, pp. 191–192. [**Truusa, Talves** 2018]

¹³ **Kattai, K.; Kask, K.** 2016. Ajateenistuse keskkond kohanemise toetajana. – *Sõjateadlane*, No. 1, pp. 155–156.

¹⁴ **Hindrikson, R.** 2019. Ajateenijate motivatsiooni ja õpihoiakute seosed ning muutumine ajas. *Lõputöö*. Tartu: Kaitseväe Akadeemia, p. 32.

intention to quit, as well as the relationship of these aspects to learning outcomes and attrition, using the method of repeated inquiry. This study will help to understand the content of conscript training and use the obtained knowledge to improve the situation based on the combined effect that the motivational aspects analysed herein have on studying. This study will also help to determine the extent to which common motivational aspects in general education are applicable to conscript training that is, in essence, a learning situation like any other. In general education as well as military training, a student must be supported under the pressure of completing the prescribed curriculum and proving his or her development. What makes military training special is the compulsive nature of conscription and use of rather conventional learning methods¹⁵.

2. Relationship between motivational aspects and their significance in learning

According to a contemporary approach to learning, the learning motivation of students is often determined through motivational aspects such as the perception of autonomy, self-efficacy, and appreciation of training¹⁶. Learning motivation is a concept that helps to explain the relationship that learning activities and outcomes have with the views, goals, and values of a student¹⁷, but also the extent to which a person is either invested in learning or planning to terminate their studies¹⁸.

One central part of research on coping with studies and learning outcomes is self-determination theory (SDT) where an individual is perceived as an organism that seeks development and to direct his or her own behaviour and, therefore, act upon internal motivation. Behaviour that is internally motivated requires that the basic psychological needs of a person be satisfied and his or her will to operate in an environment with a sense of development and satisfaction be supported. Basic psychological needs include (1) autonomy (a need

¹⁵ **Sinnep, S.** 2018. Muutused või traditsioonid kaitseväge instruktorite õpetamispraktikates. – Sõjateadlane, No. 9, pp. 146–147.

¹⁶ **Anderman, Dawson** 2011, p. 223.

¹⁷ **Rowell, L.; Hong, E.** 2013. Academic motivation: Concepts, strategies, and counseling approaches. – Professional School Counseling, Vol. 16(3), pp. 162–165.

¹⁸ **Schunk, D. H.** 2012. Learning Theories: An Educational Perspective. Sixth Edition. Boston: Pearson Education, Inc., p. 346.

to have control over personal behaviour and life), (2) competency (a need to be good at something), and (3) coherence, belonging to a social group and being accepted¹⁹.

In the academic environment, perception of autonomy is considered to be the most important of these, whereas whether autonomy as a basic need is satisfied or not depends on the extent to which a student feels the freedom to make choices and decisions, meaning that he or she has control over his or her own learning activities²⁰. Perception of something means that a person construes meaning to a phenomenon in an external environment based on his or her earlier knowledge and information obtained through sensory reflection²¹.

In the context of being invested in or terminating studies, when we are trying to explain learning motivation we should, in addition to the basic needs, also analyse self-efficacy which means the belief of a person in his or her abilities, or a sense of being able to achieve something²². According to SDT, self-efficacy is also considered a basic need to be competent, but it includes the aspect of being focused on the future²³. According to expectancy-value theory, self-efficacy is also related to expectations, meaning that study motivation is derived from the expectations that a student has set on his or her personal ability to manage any given assignment²⁴. All the aforementioned motivational aspects are, in addition to factors external to studies²⁵, an important part of forming the intention to quit which, ultimately, leads to the termination of studies²⁶.

¹⁹ **Ryan, R. M.; Deci, E. L.** 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. – *American Psychologist*, Vol. 55(1), pp. 68–72. [Ryan, Deci 2000]

²⁰ **Deci, E. L.; Vallerand, R. J.; Pelletier, L. G.; Ryan, R. M.** 1991. Motivation and Education: The Self-Determination Perspective. – *Educational Psychologist*, Vol. 26(3&4), p. 342.

²¹ **O'Donnell, A. M.; Reeve, J.; Smith, J. K.** 2007. *Educational Psychology: Reflection for Action*. New York: John Wiley & Sons, Inc., p. 242.

²² **Bandura** 1997, p. 3.

²³ **Ryan, Deci** 2000, p. 68.

²⁴ **Eccles, Wigfield** 2002, pp. 118–119.

²⁵ **Vallerand, Fortier, Guay** 1997, p. 1172.

²⁶ **Hardré, Reeve** 2003, pp. 354–355; **Vallerand, Fortier, Guay** 1997, p. 1172.

2.1. The significance of autonomy in learning, and supporting it in studies

If a person perceives autonomy, it means that he or she has a sense of self-determination and satisfaction, feeling highly motivated and in control of his or her life. Even in the more specific context of learning and forming the motivation to learn, perception of autonomy and other basic needs are important because they support internal motivation and well-being in doing something²⁷. The perception of autonomy in an academic environment largely depends on the availability of options, provision of explanations, and acceptance of feelings through which a student feels in charge of his or her learning activities²⁸. For a student to have a perception of autonomy, the learning environment must offer options. Supporting autonomy in an academic context primarily means that a teacher supports a student in developing internal motivation, important aspects of which are arousing interest, offering challenges, providing options, and accepting the negative emotions of a student, while the teacher remains open and understanding²⁹.

This is contrasted with a controlling (traditional) academic environment where students are focused on following orders and a teacher communicates with students in a controlling and authoritative manner, causing them to feel negative emotions and hindering learning³⁰ as this does not support independent thinking, finding solutions, or any other activities that arouse the interest of students or make them feel in charge of the learning process. Studies have shown that students recognise whether a teaching method supports or reduces autonomy³¹, indicating that autonomy is adequately sensed in the learning environment.

Different studies have also shown that situations where a teacher is supportive of the autonomy of students have a positive effect on school

²⁷ Niemiec, C. P.; Ryan, R. M. 2009. Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. – *Theory and Research in Education*, Vol. 7(2), p. 141.

²⁸ Ryan, Deci 2017, pp. 97–98.

²⁹ Reeve, J.; Hyungshim, J. 2006. What teachers say and do to support students' autonomy during a learning activity. – *Journal of Educational Psychology*, Vol. 98(1), p. 211. [Reeve, Hyungshim 2006]

³⁰ Jang, H.; Reeve, J.; Deci, E. L. 2010. Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. – *Journal of Educational Psychology*, Vol. 102(3), pp. 592–593.

³¹ Reeve, Hyungshim 2006, pp. 216–217.

engagement³² and the pleasure obtained from learning³³, have an impact on the persistence and commitment of students³⁴, and, in turn, decrease the intention to terminate studies³⁵. It has also been revealed that, while a learning environment that supports autonomy has a strong positive correlation with learning motivation, it is insignificantly or not at all related to better learning outcomes³⁶. Therefore, neither the support nor perception of autonomy necessarily guarantees better learning outcomes or entirely excludes the intention to quit but, instead, it helps to mediate, for example, the self-regulation abilities and the perception of the individual capabilities of a person³⁷.

Even though the Estonian educational system has adopted a contemporary approach to learning that emphasises the importance of supporting autonomy³⁸, and instead of being teacher-centred, learning is student-centred³⁹, a recent study revealed that the experiences that university students have with studying and teaching indicate a traditional approach to learning⁴⁰. According to the cited study, the teacher is an authority, learning is mostly fact-based, and activities are rather moderately thought through⁴¹. Military training is also considered controlling and instructor-centred; such

³² **Wei, L.; Wenyang, G.; Jingrong, S.** 2020. Perceived Teacher Autonomy Support and School Engagement of Tibetan Students in Elementary and Middle Schools: Mediating Effect of Self-Efficacy and Academic Emotions. – *Frontiers in Psychology*. <https://www.frontiersin.org/articles/10.3389/fpsyg.2020.00050/full> (03.11.2021).

³³ **Reeve, Hyungshim** 2006, p. 213.

³⁴ **Vansteenkiste, M.; Simons, J.; Lens, W.; Sheldon, K. M.; Deci, E. L.** 2004. Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts. – *Journal of Personality and Social Psychology*, Vol. 87(2), p. 246.

³⁵ **Hardré, Reeve** 2003, p. 352.

³⁶ **Furtak, E. M.; Kunter, M.** 2012. Effects of autonomy-supportive teaching on student learning and motivation. – *The Journal of Experimental Education*, Vol. 80(3), pp. 308–310. [**Furtak, Kunter** 2012]

³⁷ **Ryan, Deci** 2000, pp. 68–72.

³⁸ **Heidmets, M.; Slabina, P.** 2017. Õpikäsitus kooliuuenduse kontekstis. – Heidmets, M. (ed.) Õpikäsitus: teooriad, uurimused, mõõtmine. Analüütiline ülevaade. Tallinn: Tallinna Ülikool, p. 6.

³⁹ **Vinter, K.** 2017. Traditsiooniline vs konstruktivistlik õpikäsitus. – Heidmets, M. (ed.) Õpikäsitus: teooriad, uurimused, mõõtmine. Analüütiline ülevaade. Tallinn: Tallinna Ülikool, pp. 12–13.

⁴⁰ **Jõgi, L.; Karu, K.; Krabi, K.; Sarv, A.; Tropp, K. N.; Karm, M.** 2014. Üliõpilaste tajutud muutused õppejõudude õpetamispraktikas. Tartu: Primus Archimedes, pp. 51–52.

⁴¹ *Ibid.*

an understanding is supported by studies conducted in various countries⁴², including Estonia⁴³. Past studies have indicated that a contemporary approach to learning is applied rather unconsciously and arbitrarily⁴⁴. Therefore, an academic environment that supports autonomy may not be so common in the Defence Forces; increased support of autonomy in conscript training might help to advance the interest and will of students/conscripts to participate in military training.

It is fair to assume that conscripts might have to adjust to somewhat different teaching methods during conscription compared to those that they are used to, and the extent of support of autonomy may vary in this context, depending on, for example, the approach preferred by different instructors. However, we must remember that an environment that supports autonomy may not be equally acceptable to everyone and adjustment may take time⁴⁵. Therefore, it is important to study the perception of autonomy over a longer period of time and to determine its relationship with other motivational aspects. It is also important to explain the extent to which the relationships found in general education apply to compulsory military training.

2.2. The significance of self-efficacy in learning and supporting it in studies

Self-efficacy is defined as the belief of a person in his or her individual ability to perform an assignment or achieve goals, representing an aspect that affects the choices and decisions of a person, their quality, personal motivation, and ability to resist external factors along with vulnerability to stress and depression. A person operates and modifies his or her behaviour pursuant to his or her individual performance and emotional response to received feedback⁴⁶.

⁴² **Juhary, J.** 2015. Understanding military pedagogy. – *Procedia – Social and Behavioral Sciences*, Vol. 186, pp. 1259–1261; **Zacharakis, J.; van der Werff, J. A.** 2012. The future of adult education in the military. – *New Directions for Adult and Continuing Education*, Vol. 136, pp. 96–97.

⁴³ **Amer, M.; Ganina, S.** 2016. Ajateenijate nooremallohvitseride kursusel kasutatavate õppemeetodite valik. – *Sõjateadlane*, No. 1, p. 187, **Sinnep** 2018, pp. 146–147.

⁴⁴ **Värno, P.; Soomere, T.; Lepp, L.** 2019. Kaitseväe Ühendatud Õppeasutuste taktika-õppejõudude arusaamad nüüdisaegse õpikäsituse olemusest ja rakendamisest. – *Sõjateadlane*, No. 10, p. 53. [**Värno, Soomere, Lepp** 2019]

⁴⁵ **Reeve, J.** 2009. Why teachers adopt a controlling motivating style toward students and how they can become more autonomy supportive. – *Educational Psychologist*, Vol. 44(3), p. 170.

⁴⁶ **Bandura** 1997, pp. 36–38.

Self-efficacy is a universal motivational aspect that affects people regardless of their cultural environment and context of activities⁴⁷.

Although capability is related to self-efficacy and mental capability may help to better predict learning outcomes⁴⁸, the significance of self-efficacy is not restricted to the level of capability. The relationship between self-efficacy and learning outcomes can be better understood in the example of the specific behaviour of students with higher self-confidence. Students make academic choices in favour of the things in which they feel more secure and tend to avoid the things in which confidence is lacking⁴⁹. Students with greater self-efficacy tend to be more persistent and continue studying under stressful circumstances even despite setbacks⁵⁰, think less about quitting and actually terminate their studies less⁵¹. At the same time, greater self-efficacy is generally characteristic of people with greater cognitive capabilities⁵² and, therefore, proneness to achieve better learning outcomes.

Over time, as a person gets more experienced, self-efficacy might be altered because a person learns to assess his or her own abilities more precisely. However, if the process is paved with negative emotions, this will negatively affect self-efficacy⁵³. In the case of lacking competency, a person's belief in his or her own abilities may be faulty and such a situation may later hinder learning because expectations to succeed are high but the actual level of capability prevents him or her from achieving results⁵⁴.

⁴⁷ **Luszczynska, A.; Gutiérrez-Doña, B.; Schwarzer, R.** 2005. General self-efficacy in various domains of human functioning: Evidence from five countries. – *International Journal of Psychology*, Vol. 40(2), pp. 87–88.

⁴⁸ **Watkins, M. W.; Lei, P.-W.; Canivez, G. L.** 2007. Psychometric intelligence and achievement: A cross-lagged panel analysis. – *Intelligence*, Vol. 35(1), pp. 66–67.

⁴⁹ **Schunk, D. H.** 1995. Self-efficacy, motivation, and performance. – *Journal of Applied Sport Psychology*, Vol. 7(2), p. 133.

⁵⁰ **Tinto, V.** 2017. Through the eyes of students. – *Journal of College Student Retention: Research, Theory & Practice*, Vol. 19(3), pp. 6–8. [Tinto 2017]

⁵¹ **Peguero, A. A.; Shaffer, K. A.** 2015. Academic self-efficacy, dropping out, and the significance of inequality. – *Sociological Spectrum*, Vol. 35(1), pp. 57–58. [Peguero, Shaffer 2015]

⁵² **Truxillo, D. M.; Seitz, R.; Bauer, T. N.** 2008. The Role of Cognitive Ability in Self-Efficacy and Self-Assessed Test Performance. – *Journal of Applied Social Psychology*, Vol. 38(4), pp. 910–914.

⁵³ **Schunk, D. H.; DiBenedetto, M. K.** 2016. Self-Efficacy Theory in Education. – Wentzel, K. R.; Miele, D. B. (eds.) *Handbook of Motivation at School*. London: Routledge, p. 36. [Schunk, DiBenedetto 2016]

⁵⁴ **Pajares, F.** 1996. Self-Efficacy Beliefs in Academic Settings. *American Educational Research Association*. San Francisco: Emory University, pp. 22–23. <https://doi.org/10.3102/00346543066004543> (13.11.2021). [Pajares 1996]

A learning environment may affect self-efficacy, for example, through the provision of feedback and treatment of students⁵⁵. In general, greater self-efficacy is supported by previous success, role models, verbal persuasion, and the physical and mental state of a person⁵⁶. Therefore, the learning environment can help to increase self-efficacy and support one's efforts in their studies which, in turn (and thanks to previous achievements), will help them to maintain a high level of self-efficacy and achieve great things in the future.

Even though self-efficacy is one important motivational aspect, it is not enough to explain the success or failure of a student. If a student with high self-efficacy fails to understand how the subjects taught to them will support his or her personal goals, this will negatively affect his or her performance and efforts in studies⁵⁷. Therefore, the impact of self-efficacy must be studied in relation with other motivational aspects.

2.3. The significance of valuing learning in an academic context

Expectancy-value theory is used to explain how perceiving learning as something important, useful, and interesting supports studies⁵⁸, whereas expectations are derived from the assessment of a student on the probability of his or her personal success and are largely based on previous competency. Besides expectations, another important factor that helps to explain motivation is the value attributed by a student to studying and learning outcomes. Value can be attributed to learning, or training valued, in different categories that may manifest in the importance of learning, its compliance with the personal goals of a student, feeling pleasure and sensing importance, but also in unwelcome side effects. Still, the appreciation of training primarily affects the academic choices of a person and the development of educational and professional proceedings in general, referring to a different impact compared to how the expectations of a student affect learning outcomes⁵⁹.

⁵⁵ **Pajares, F.** 2006. Self-Efficacy During Childhood and Adolescence. Implications for Teachers and Parents. – Urdan, T.; Pajares, F. (eds.) *Self-Efficacy Beliefs of Adolescents*. Greenwich, Connecticut: Information Age Publishing, pp. 364–366.

⁵⁶ **Bandura** 1997, p. 79.

⁵⁷ **Schunk, DiBenedetto** 2016, p. 36.

⁵⁸ **Wigfield, A.; Eccles, J. S.** 1992. The development of achievement task values: A theoretical analysis. – *Developmental Review*, Vol. 12, pp. 39–40.

⁵⁹ **Eccles, Wigfield** 2002, pp. 118–121.

According to expectancy-value theory, learning motivation is approached through beliefs obtained from competency (cf. self-efficacy) as well as the combined impact of appreciating learning and its outcomes. The appreciation of training could, on the one hand, be based on meaningful training and teaching methods that make the studied subjects interesting and learning activities pleasant. On the other hand, the appreciation of training could be derived from intentions that affect learning and are based on goals unrelated to studies but have to do with the need to actually apply new knowledge (obtained skills, status, career development, etc.), i.e., benefitting from the studies in the future⁶⁰.

Therefore, it is important to offer conscripts valuable training to motivate them to continue contributing to national defence in the future. A conscript with more experiences, maybe with a background in the Defence League, may have set higher expectations on training and it might lose value if he or she fails to see the benefits of conscription or its contribution to his or her personal goals or career in the Defence Forces. One might argue that military training cannot consider the interests and expectations of each individual conscript, which is why it may be difficult to support it through appreciation of training. On the other hand, if participants are given attention, their autonomy is supported, meaningful and exciting training is offered, and the significance of the content of the studies is explained to them, they might be more accepting of the subjects offered and, over time, come to appreciate them⁶¹.

2.4. Developing the intention to quit

If a student quits his or her studies before concluding the assigned curricula, it is called dropping out or terminating studies. However, there is usually a longer process behind the decision to terminate one's studies during which the intention to quit developed⁶², and this process is affected by a number of factors⁶³.

Different studies have revealed the correlation between the intention to quit and an actual termination of studies⁶⁴. From the viewpoint of a student,

⁶⁰ **Simons, J.; Vansteenkiste, M.; Lens, W.; Lacante, M.** 2004. Placing motivation and future time perspective theory in a temporal perspective. – *Educational Psychology Review*, Vol. 16(2), pp. 135–136.

⁶¹ **Ryan, Deci** 2000, p. 76.

⁶² **Kerby** 2015, pp. 155–156.

⁶³ **Aljohani, O.** 2016. A Comprehensive Review of the Major Studies and Theoretical Models of Student Retention in Higher Education. – *Higher Education Studies*, Vol. 6(2), pp. 11–13.

⁶⁴ **Vallerand, Fortier, Guay** 1997, p. 1172.

the termination of studies is primarily related with a relevant intention that is, in turn, affected by factors deriving from studies as well as from independent external circumstances, for example, engagement in professional or family obligations or other social economic issues⁶⁵. The intention to quit has also been associated with emotional issues and a loss of interest⁶⁶. In the case of conscripts, however, discharge from training (attrition) is often caused by physical or mental health issues, primarily mental or behavioural disorders⁶⁷. These are complemented by the fear developed during the adjustment period of conscription of an unfamiliar environment, financial management, and the restriction of freedom of action⁶⁸. Adjustment to conscription is also hindered by previous negative experiences regarding commanding methods and the significance of training⁶⁹; similar negative experiences during the adjustment period also predicted attrition among Finnish conscripts⁷⁰. The occurrence and aggravation of psychological difficulties may also be related to the nature of training or service. Similarly to general education schools, experiences obtained during the adjustment period of the first semester or school year are crucial in successive decisions. An obtained subject or activity that would, under different circumstances, have great significance might be irrelevant to a student if it does not associate with future benefits or is insufficiently explained⁷¹. Consequently, over the brief period when a conscript is engaged in compulsory military training, things like the extent to which a conscript decides to contribute to national defence in future reservist training might become incredibly important.

Consequently, attrition may be affected by negative experiences obtained during training or service and the intention to quit tends to intensify during the first period of training when a person is still adjusting to new circumstances and living arrangements. However, according to a study conducted among new conscripts in Canada, a firm setting of rules and living arrangements is not related to the intention to quit; rather, conscript training is terminated by people whose views or state of health had already implanted the

⁶⁵ Ots, Leijen, Pedaste 2012, pp. 143–144.

⁶⁶ Must, Must 2017, pp. 247–248.

⁶⁷ Kaitseministeerium 2019, p. 20.

⁶⁸ Truusa, Talves 2018, pp. 191–192.

⁶⁹ Kattai, Kask 2016, pp. 155–156.

⁷⁰ Salo, M. 2008. Determinants of military adjustment and attrition during Finnish conscript service. Tampere University Press, pp. 191–196. [Salo 2008]

⁷¹ Tinto 2017, pp. 9–10.

intention to quit in their minds before the beginning of conscription⁷². Therefore, the intention to quit and decision to terminate training may be caused by factors unrelated to the training, e.g., views that do not accommodate conscription. Regardless of our theory of the relationship between motivational aspects, we might find unexpected connections.

3. Objective and method

The objective of this study is to determine the relationship that the perception of autonomy has with self-efficacy, appreciation of training, and intention to quit during conscription, and the relationship of these aspects with learning outcomes and attrition, using the method of repeated inquiry.

Based on the available theories, two hypotheses were established to serve this objective:

- 1) Perception of autonomy during conscription is a positive indicator of future self-efficacy and appreciation of training, and a negative indicator of intention to quit.
- 2) Perception of autonomy during conscription is a positive indicator of the learning outcomes of conscription and a negative indicator of an intention to quit and attrition.

3.1. Sample

This study was conducted among 392 conscripts who were drafted into the Kuperjanov Infantry Battalion in 2019. Inquiries were conducted twice during the basic course for a soldier: the first time among 357 conscripts (91.1% of the sample), and the second time among 342 conscripts (87.2% of the sample). Repeated inquiries provided associated data from a total of 321 conscripts (81.8% of the sample). The average age of conscripts was 19.9 years and the number of women in the final sample was 5 (1.56%).

⁷² **Godlewski, R.; Kline, T.** 2012. A model of voluntary turnover in male Canadian Forces recruits. – *Military Psychology*, Vol. 24(3), pp. 264–265. [**Godlewski, Kline** 2012]

3.2. Procedure

An electronic questionnaire was available to conscripts in the e-learning environment ILIAS of the Estonian Defence Forces on the third and seventh training week (second to last day of the basic course for a soldier). Participation was voluntary and the inquiry was conducted with the permission of the Commander of the Kuperjanov Infantry Battalion. All participants were introduced to the objective of the survey and the purpose of using their data, and they were informed that by answering the questionnaire they gave consent for participation, that answering the inquiry was voluntary, and that analysis would be non-personalised. Questionnaires were answered on tablet computers; immediately before answering, tickets with personalised passwords were handed out to access the questionnaire in ILIAS. Answering took approximately six minutes.

3.3. Data collection method

For the purpose of measuring motivational aspects, a questionnaire was designed on the perception of autonomy, self-efficacy, appreciation of training, and intention to quit (KV-AEVL) by adjusting relevant measuring instruments by researchers of other countries (see Table 1).

3.3.1. KV-AEVL questionnaire

Table 1. Sections of the AEVL questionnaire, sources along with description, and credibility

Researched phenomenon	Source and description	Cronbach's alpha
Perception of autonomy in training (PA)	Learning Climate Questionnaire adapted 6-item version ⁷³	0.81
Self-efficacy in training (SE)	7-point Self-Efficacy Scale used in a survey conducted in the Norwegian military academies (Navy, Air Force, and Army) ⁷⁴	0.89

⁷³ Alcaraz, S.; Viladrich, C.; Torregrosa, M. 2013. Less time, better quality. Shortening questionnaires to assess team environment and goal orientation. – The Spanish Journal of Psychology, Vol. 16, p. 9.

⁷⁴ Buch, R.; Säfvenbom, R.; Boe, O. 2015. The relationships between academic self-efficacy, intrinsic motivation, and perceived competence. – Journal of Military Studies, Vol. 6, p. 12. <https://sciendo.com/pdf/10.1515/jms-2016-0195> (03.11.2021).

Researched phenomenon	Source and description	Cronbach's alpha
Appreciation of training (AT)	3-item scale used in a survey conducted among the conscripts of the Royal Netherlands Navy ⁷⁵	0.80
Intention to quit training (IQ)	Initially used as a 2-item scale ⁷⁶ , later altered as a 3-item scale in a survey conducted in the Royal Netherlands Navy ⁷⁷	0.63
		0.79

All statements in the questionnaire could be assessed on a 7-point scale, where 1 was equivalent to “do not agree” and 7 was equivalent to “totally agree”. The middle of the scale (4 points) was equivalent to “it varies”. All sections of the questionnaire were adjusted to Estonian using a translation and back translation method.

For the second inquiry the statements used in the questionnaire were modified and formatted in the past tense (for example, the phrase *am learning* was replaced with *was learning* in the second inquiry) because the second set of data was collected right after the course was completed. After the first data collection, the formatting of one statement in the survey regarding the intention to quit training was amended (changed back to an affirmative form) to improve the measurement properties of that part of the questionnaire.

The validity of the measurement model of the questionnaire was assessed as a measuring invariance between the two measurements. An overview of the statistics that characterise the questionnaire is provided in Annex 1. The qualities of the designed means of measurement were monitored with confirmatory factor analysis using JASP, a program for statistical analysis, version 0.10.2⁷⁸. Based on the theoretical construction of the means of measurement, the next step was to conduct confirmatory factor analysis with the data collected with the two measurements, where latent variables were (1) perception of autonomy, (2) self-efficacy, (3) appreciation of training, and (4) intention to quit; analysis of each factor included the variables of statements from relevant sections of the questionnaire. The estimator of the

⁷⁵ Delahaij, R.; Theunissen, N. C.; Six, C. 2014. The influence of autonomy support on self-regulatory processes and attrition in the Royal Dutch Navy. – *Learning and Individual Differences*, Vol. 30, p. 179; [Delahaij, Theunissen, Six 2014] Hardré, Reeve 2003, p. 349.

⁷⁶ Vallerand, Fortier, Guay 1997, p. 1164.

⁷⁷ Delahaij, Theunissen, Six 2014, p. 179.

⁷⁸ Goss-Sampson, M. 2019. *Statistical Analysis in JASP 0.10.2: A Guide for Students*. 2nd ed. <https://jasp-stats.org/jasp-materials/> (03.11.2021). [Goss-Sampson 2019]

analysis was Diagonally Weighed Least Squares (DWLS) which is considered more precise in situations where data are not subject to normal distribution, and suitable for models of categorical variables⁷⁹. Factors could correlate; the analysis utilised oblique rotation with the Oblimin method.

The results confirmed that this four-factor model fits both the first and the second measurement (the first measurement: $\chi^2(113, 356) = 112.08$; $p = 0.507$, $\chi^2/df = 0.99$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00; the second measurement: $\chi^2(113, 342) = 86.75$; $p = 0.968$, $\chi^2/df = 0.78$; CFI = 1.00; TLI = 1.01; RMSEA = 0.00). Both times, factor loadings (see Annex 2) ranged from 0.63 to 0.89. Correlations between the factors of same aspects were of a positive covariance for the same aspects in both measurements, primarily moderate or strong (except the correlation between perception of autonomy and intention to quit according to the first measurement), ranging from 0.35 to 0.79 for both measurements, and of statistical significance ($p < 0.001$). Different relationships are more thoroughly discussed in Chapter 4.

For the purpose of determining the comparability of the measurement results, a measurement invariance analysis was first conducted using Multi-group Structural Equation Modelling, e.g., determining the comparability of measurement results from the same people at different times.

Configural invariance was assessed by restricting the means of factors and residuals of analysis. This is a so-called weak assessment on the comparability of measurements to determine whether the same statements can measure the same factors on different data collection instances. Additionally, on both instances, strict invariance was assessed, whereas in the case of configural invariance, restrictions were also added to factor loadings and thresholds of the model to make the comparability of measurements more precise⁸⁰.

Analysis of the compliance between the results of the first and second measurement confirmed the configural invariance ($\chi^2(243, 699) = 216.88$; $p = 0.885$; CLI = 1.00; TLI = 1.00; RMSEA = 0.00) and a strict invariance ($\chi^2(256, 699) = 235.44$; $p = 0.817$; CLI = 1.00; TLI = 1.00; RMSEA = 0.00) of measurements. Therefore, the statements within the means of measurement measured the same aspects correspondingly both times. Consequently, the results of the two measurements can be considered comparable.

⁷⁹ **Mindrila, D.** 2010. Maximum likelihood (ML) and diagonally weighed least squares (DWLS) procedures: A comparison of estimation bias with ordinal and multivariate non-normal data. – *International Journal of Digital Society*, Vol. 1(1), p. 61.

⁸⁰ **Schroeders, U.; Wilhelm, O.** 2011. Equivalence of reading and listening comprehension across test media. – *Educational and Psychological Measurement*, Vol. 71(5), pp. 862–864.

3.3.2. Study results and attrition

In order to find the relationships that study results and attrition have with other motivational aspects, we used the examination results of conscripts of the basic course for a soldier and the data of conscripts actually discharged from service.

Study results

Permission to use examination results for this analysis was granted by the Commander of the Kuperjanov Infantry Battalion. Scores from six parts of the basic course for the soldier examination were used:

- 1) Mobility on a battlefield (M = 7.81, SD = 1.59, MIN = 2, MAX = 10)
- 2) Position defence (M = 11.92, SD = 2.61, MIN = 1, MAX = 16)
- 3) Shooting test No. 3 (M = 42.94, SD = 11.75, MIN = 1, MAX = 60)
- 4) Entity (M = 14.52, SD = 2.51, MIN = 1, MAX = 16)
- 5) Formation (M = 16.64, SD = 2.88, MIN = 1, MAX = 18)
- 6) First aid on a battlefield (M = 6.70, SD = 1.38, MIN = 1, MAX = 8)

The measurement properties of these parts of examination are unknown and these results were used in the same form that the Battalion disclosed.

For the purpose of characterising the study results of each participant, the scores of all parts of examination were standardised and transferred to a t-scale (an average of 50 points and standard deviation of 10 points)⁸¹. Based on the results of the aforementioned six parts of the basic course for the soldier examination, a separate factor was formed with confirmatory factor analysis ($\chi^2(9, 342) = 3.46$; $p = 0.943$; CFI = 1.00; TLI = 1.05; RMSEA = 0.00) which revealed that all parts of examination fit well with the same factor, and the indicators range from 0.59 to 0.69 and are of statistical significance.

Attrition

Permission to use statistical data on conscripts discharged from service and compare it with the measurements of this study was granted by the Commander of the 2nd Infantry Brigade. A total of 28 draftees were discharged from service, 19 of whom had answered the questionnaire the first time. For

⁸¹ **Mikk, J.** 2002. Ainetestid. Tartu: Tartu Ülikool, pedagoogika osakond, p. 64. <https://kodu.ut.ee/~jaanm/ainetestid.pdf> (13.11.2021).

the purpose of this analysis, a binary variable ($N = 356$) was designed: “0” – not discharged (94.67%); “1” – discharged (5.33%).

3.4. Data analysis

Assessments of individual questions about the motivational aspects under analysis were assembled under latent indicators using the confirmatory factor analysis method where variables that represent the assessments given to different statements are categorised pursuant to a theoretically constructed structure to determine the existing factors. Correlations between aspects are analysed concurrently cross-sectionally and on two different points in time. Previous studies have shown that the aspects analysed herein correlate, whereas the relationship between two aspects may be affected by other aspects involved. Therefore, suitable methods of analysis are those that enable one to complexly explain the relationship between latent traits while also considering their connection with other factors. Analysis like this can be conducted using structural equation modelling (SEM) where confirmatory factor analysis enables one to combine the formation of latent variables and determine their correlation with regression and correlation analysis⁸². Analytical assessment can reveal the extent to which the model of determined relationships is in concordance with the data set used (assessing the fit of a model).

Analysis was conducted with the data analysis program JASP version 0.10.2 which can be used for confirmatory factor analysis and SEM analysis due to *lavaan*, the additional package R of the program⁸³. For the purpose of determining interfactorial relations of measurements conducted at two separate points in time, one way of applying SEM was the cross-lagged panel model⁸⁴ with latent variables. In order to determine the types of relations where one aspect could affect a second aspect through a third, regression-based mediation analysis was used within SEM⁸⁵.

⁸² Rosseel, Y. 2020. The lavaan tutorial. Department of Data Analysis: Ghent University, pp. 4–11. <https://lavaan.ugent.be/tutorial/tutorial.pdf> (03.11.2021). [Rosseel 2020]

⁸³ *Ibid.*

⁸⁴ Kearney, M. W. 2017. Cross-Lagged Panel Analysis. – Allen, M. (ed.). The SAGE Encyclopedia of Communication Research Methods. Thousand Oaks, CA: SAGE Publications, pp. 313–314.

⁸⁵ Selig, J. P.; Little, T. D. 2012. Autoregressive and cross-lagged panel analysis for longitudinal data. – Laursen, B.; Little, T. D.; Card, N. A. (eds.). Handbook of Developmental Research Methods. The Guilford Press, p. 265; Elmes, D. G.; Kantowitz, B. H.; Roediger III, H. L. 2013. Põhholoogia uurimismetodid. Tartu: Tartu Ülikooli Kirjastus, pp. 42–43.

4. Results

To determine the relationship between different motivational aspects and study behaviour, all aspects were approached complexly. First, their interrelation was assessed cross-sectionally and with repeated inquiries, focusing on the perception of autonomy. Then, the options offered by the SEM method were utilised to explain the estimated connection that these aspects have with study behaviour while also foregrounding the role of autonomy.

4.1. Connections between motivational aspects cross-sectionally and based on repeated inquiries

For the purpose of determining cross-sectional relations, analysis was based on the cross-sectional correlations of factors determined with a factor analysis of both measurements (see Table 2) which revealed that, cross-sectionally, different factors are generally correlated moderately or strongly⁸⁶ and with a statistical significance ($p < 0.001$). The perception of autonomy was moderately or strongly and positively correlated with self-efficacy ($r_{t1} = 0.42$; $r_{t2} = 0.60$) and appreciation of training ($r_{t1} = 0.45$; $r_{t2} = 0.65$). Weaker negative correlations were with the intention to quit ($r_{t1} = -0.20$; $r_{t2} = -0.35$). Compared to the first measurement, it was distinct from the second measurement that the correlation of perception of autonomy with other factors significantly intensified. Self-efficacy had a strong positive correlation with appreciation of training ($r_{t1} = 0.65$; $r_{t2} = 0.75$) and a strong negative correlation with intention to quit ($r_{t1} = -0.79$; $r_{t2} = -0.70$). Appreciation of training had a strong negative correlation with intention to quit ($r_{t1} = -0.52$; $r_{t2} = -0.53$). Consequently, as expected, all aspects are positively correlated pursuant to both measurements and the intensity of correlation varies from weak to strong.

⁸⁶ The Hemphill coefficient. (Hemphill, J. F. 2003. Interpreting the magnitudes of correlation coefficients. – American Psychologist, Vol. 58(1), p. 78) and the Cohen coefficient (Cohen, J. 1992. Statistical power analysis. – Current Directions in Psychological Science, Vol. 1(3), pp. 98–101), where correlation is considered moderate from $r = 0.30$ and strong from $r = 0.50$.

Table 2. Interfactorial correlations on two measurements [t_1 and t_2].

Factors			Correlation coefficient (ρ)	
			t_1	t_2
PA	↔	SE	0.42	0.60
PA	↔	AT	0.45	0.65
PA	↔	IQ	-0.2	-0.35
SE	↔	AT	0.65	0.75
SE	↔	IQ	-0.79	-0.70
AT	↔	IQ	-0.52	-0.53

Note: All estimations are of statistical significance ($p < 0.001$).

To reveal the changes that take place over time and their interrelation, we analysed the connections and mutual dependence of aspects determined with both measurements. The cross-lagged panel model ($\chi^2(512, 321) = 442.96$; $p = 0.988$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00) revealed (see Table 3) that the correlations between different aspects between measurements were mostly strong and statistically significant ($p < 0.001$).

Table 3. Interfactorial correlations in repeated inquiries on two measurements [t_1 and t_2].

Factors			Correlation coefficient (ρ)
t_1		t_2	
PA	↔	PA	0.57
SE	↔	SE	0.84
AT	↔	AT	0.80
IQ	↔	IQ	0.91
PA	↔	SE	0.32
PA	↔	AT	0.34
PA	↔	IQ	-0.29
SE	↔	PA	0.41
SE	↔	AT	0.59
SE	↔	IQ	-0.64
AT	↔	PA	0.49
AT	↔	SE	0.57
AT	↔	IQ	-0.47
IQ	↔	PA	-0.35
IQ	↔	SE	-0.68
IQ	↔	AT	-0.47

Note: All estimations are of statistical significance ($p < 0.001$).

What stands out is the correlation of earlier perception of autonomy with later self-efficacy ($r = 0.32$) and appreciation of training ($r = 0.34$), and a weak negative correlation with intention to quit ($r = -0.29$). Strong correlation (autocorrelation) with self-efficacy ($r = 0.84$) and intention to quit ($r = 0.91$) is evident from both measurements. Therefore, the connections revealed with repeated inquiries were of similar types as cross-sectional correlations. Previously perceived autonomy had a positive and moderate correlation with later measured self-efficacy and appreciation of training, and a weak and negative correlation with intention to quit.

For the purpose of determining the changes that take place over time and their mutual dependence, a cross-panel model was used to analyse the data of both measurements ($\chi^2(508, 321) = 442.96$; $p = 0.983$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00). Even though factor analysis revealed important connections between these aspects, the cross-lagged panel model did not reveal any significant effect on several regressions. The model (see Figure 1) reveals that the autoregressive variables of all aspects, except perception of autonomy, were positive and of statistical significance.

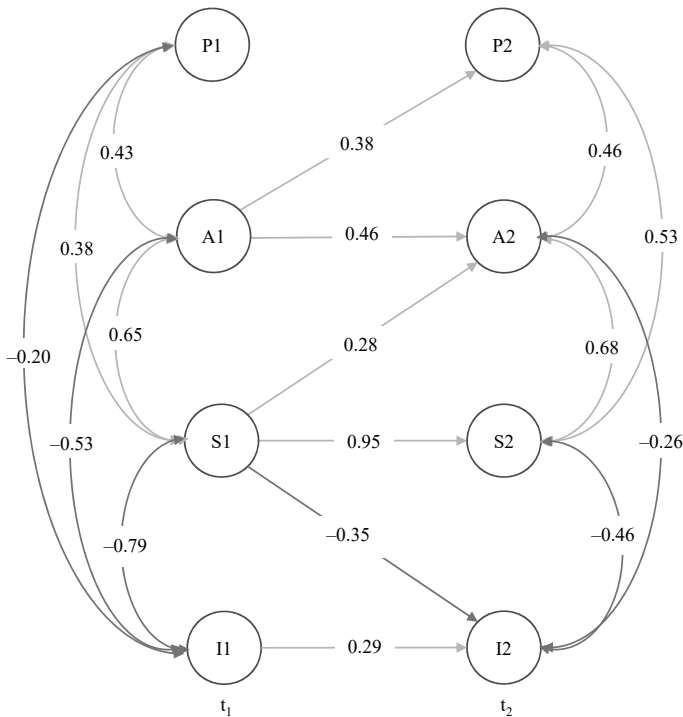


Figure 1. Results of the cross-lagged panel model analysis [$\chi^2[508, 321] = 442.96$; $p = 0.983$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00]

Note: A representation of important interfactorial correlations ($p < 0.05$). P – perception of autonomy; A – appreciation of training; S – self-efficacy; I – intention to quit; t_1 – first measurement; t_2 – second measurement.

Appreciation of training positively predicted later perception of autonomy ($\beta = 0.38$). Self-efficacy positively predicted appreciation of training ($\beta = 0.28$) and negatively predicted an intention to quit ($\beta = -0.35$). Important correlations between the residuals of factors also remained, except between perception of autonomy and intention to quit where the correlation was insignificant.

Consequently, the covariance that appeared was not unexpected either for regressions or correlations. The analysis did not reveal dependence of other aspects on earlier perception of autonomy, which was surprising. But since perception of autonomy has a significant cross-sectional correlation with self-efficacy, and previous self-efficacy predicted later self-efficacy, appreciation of training, and intention to quit, we will see if the perception of autonomy revealed any cross-sectional mediated correlations with later aspects.

4.2. Mediated correlations

For the purpose of determining mediated correlations, we used the aforementioned cross-lagged panel model where the factors of the first measurement were complemented with a cross-sectional regression to make perception of autonomy an independent and self-efficacy a dependent variable. The structural model was complemented with mediation analysis where dependent variables were self-efficacy and intention to quit from the second measurement, a mediating aspect was self-efficacy from the first measurement, and the independent aspect was perception of autonomy from the first measurement. The resulting model (see Figure 2) fit the data well ($\chi^2(500, 321) = 429.73$; $p = 0.99$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00).

In comparison to the previous panel model (see Figure 1), this one revealed an autoregression of perception of autonomy ($\beta = 0.43$). As for cross-lagged regressions, it was revealed that later self-efficacy is significantly but weakly and negatively dependant on previous intention to quit ($\beta = -0.15$). The cross-sectional regression between perception of autonomy and self-efficacy from the first measurement added to the model turned out to be important ($\beta = 0.38$). The results of the mediation analysis revealed that perception of autonomy, mediated by self-efficacy from the first measurement, had a significant indirect effect ($\beta = 0.24$) and total effect ($\beta = 0.26$) on self-efficacy from the second measurement, but it did not have a direct impact. A similar correlation mediated by previous self-efficacy also applied to intention to quit from the second measurement where an important and negative indirect effect ($\beta = -0.15$) and total effect ($\beta = -0.22$) appeared for previously measured perception of autonomy, but direct effect did not appear.

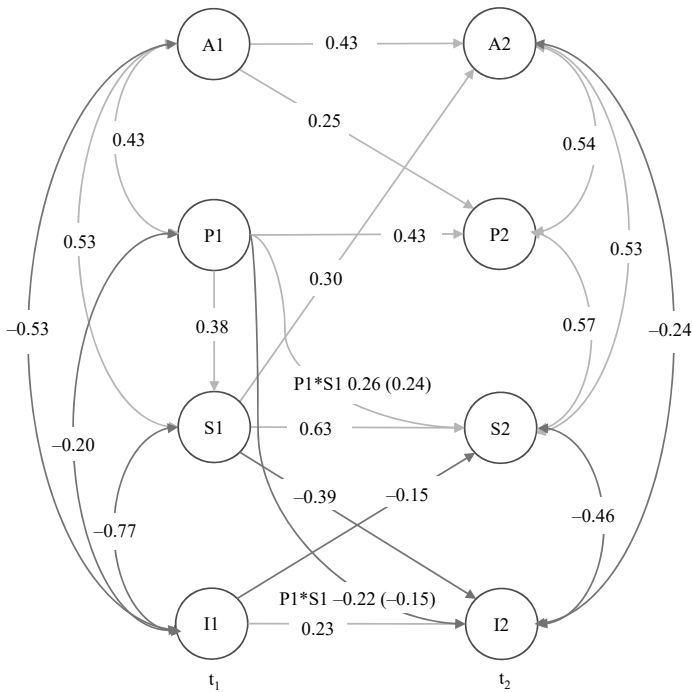


Figure 2. The results of cross-lagged panel model combined with mediation analysis [$\chi^2(500, 321) = 429.73$; $p = 0.99$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00]

Note: A representation of important interfactorial correlations ($p < 0.05$). Drawing regression as a curve represents mediation analysis (total effect before brackets, indirect effect inside brackets). P – perception of autonomy; A – appreciation of training; S – self-efficacy; I – intention to quit; t_1 – first measurement; t_2 – second measurement.

In conclusion, the perception of autonomy did not predict future appreciation of training, even though previous perception of autonomy predicted future self-efficacy and negatively predicted an intention to quit, weakly mediated by previous self-efficacy. Considering the results of the panel models, the cross-sectional correlation of the established motivational aspects, the correlation between repeated measurements, and the estimated theory, we can assume a potential revelation of a (combined) impact on the learning behaviour and actual accomplishments of conscripts.

4.3. The relationship that motivational aspects have with the learning outcomes of conscripts

The next step was to conduct a regression analysis where the dependent variable was the established factor of learning outcomes and independent variables were the perception of autonomy, self-efficacy, appreciation of training, and intention to quit from the second measurement. The model fit the data well ($\chi^2(242, 342) = 144.61$; $p = 1.000$; CFI = 1.00; TLI = 1.02; RMSEA = 0.00) and described almost a fifth of the variations of learning outcomes ($R^2 = 0.19$). Still, we must note that, out of all the independent variables, only self-efficacy predicted learning outcomes with a statistical significance ($\beta = 0.42$; $p < 0.001$), whereas we found no significant relation between perception of autonomy and other aspects.

Since factor analysis and panel models revealed that other aspects were cross-sectionally related with self-efficacy, we conducted an analysis where other factors predicted self-efficacy and the latter, in turn, predicted learning outcomes. This model, too, fit the data well ($\chi^2(245, 342) = 148.92$; $p = 1.000$; CFI = 1.00; TLI = 1.01; RMSEA = 0.00) and revealed an estimated relation between self-efficacy and learning outcomes ($\beta = 0.42$; $p < 0.001$; see Figure 3, the model on the left). Self-efficacy was also significantly predicted by all other aspects involved: perception of autonomy ($\beta = 0.17$; $p < 0.01$), appreciation of training ($\beta = 0.42$; $p < 0.001$), and intention to quit ($\beta = -0.40$; $p < 0.001$). However, the role of perception of autonomy was more modest compared to the others in predicting self-efficacy.

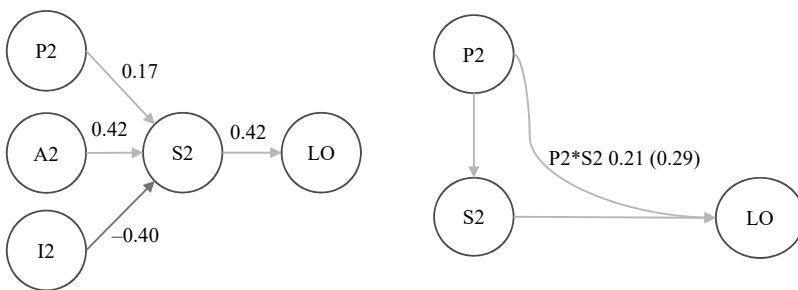


Figure 3. Theoretical “gradual” model [on the left] [$\chi^2[245, 342] = 148.92$; $p = 1.000$; CFI = 1.00; TLI = 1.01] and the effect of perception of autonomy [P2] on learning outcomes [LO] mediated by self-efficacy [on the right] [$\chi^2[242, 342] = 144.61$; $p = 1.000$; CFI = 1.00; TLI = 1.02]

For the purpose of determining a potential indirect effect of perception of autonomy on learning outcomes, an additional mediation analysis was conducted ($\chi^2(242, 342) = 144.61$; $p = 1.000$; CFI = 1.00; TLI = 1.02) which revealed that learning outcomes depended significantly but weakly on perception of autonomy mediated by self-efficacy ($\beta = 0.29$; $p < 0.001$, see Figure 3, the model on the right). Total effect (direct plus indirect) was weak but of statistical significance ($\beta = 0.21$; $p < 0.001$).

4.4. Relationship between motivational aspects and attrition

For determining the relation between attrition and motivational aspects, we conducted a regression analysis where the dependent variable was attrition and independent variables were perception of autonomy, self-efficacy, appreciation of training, and intention to quit. The analysis model fit the data well ($\chi^2(126, 356) = 104.46$; $p = 0.919$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00) and described over a third of the variations of attrition ($R^2 = 0.36$). Out of the independent variables, intention to quit was the one that predicted attrition, as expected ($\beta = 0.70$; $p < 0.001$).

Since we already knew that other involved factors were cross-sectionally correlated with intention to quit, we conducted an analysis where other motivational aspects predicted intention to quit that, in turn, predicted attrition. The model fit the data well ($\chi^2(129, 356) = 105.95$; $p = 0.932$; CFI = 1.00; TLI = 1.01; RMSEA = 0.00) and revealed an expected relationship between intention to quit and attrition ($\beta = 0.57$; $p < 0.001$, see Figure 4, the model on the left). Intention to quit was also statistically significantly but weakly predicted by perception of autonomy ($\beta = 0.15$; $p < 0.01$) and strongly and negatively predicted by self-efficacy ($\beta = -0.80$; $p < 0.001$), whereas the relationship with appreciation of training turned out to be insignificant.

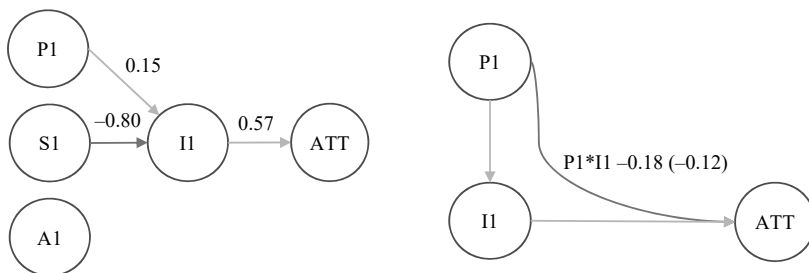


Figure 4. Theoretical “gradual” model [on the left] [$\chi^2(129, 356) = 105.95$; $p = 0.932$; CFI = 1.00; TLI = 1.01] and the effect of perception of autonomy [P1] on attrition [ATT] mediated by intention to quit [on the right] [$\chi^2(25, 356) = 19.71$; $p = 0.762$; CFI = 1.00; TLI = 1.01]

For the purpose of determining the extent to which perception of autonomy may predict attrition, we conducted a mediation analysis to find a potential mediating role of intention to quit. The suitability data of the concluded model were good ($\chi^2(25, 356) = 19.71$; $p = 0.762$; CFI = 1.00; TLI = 1.01; RMSEA = 0.00; see Figure 4, the model on the right). The results of the analysis revealed that even though perception of autonomy did not have a direct relation with attrition, a weak negative but significant relation was revealed through intention to quit ($\beta = -0.12$; $p < 0.01$). The total effect of predicting attrition was weak and negative but of statistical significance ($\beta = -0.18$; $p < 0.01$).

We can conclude that motivational aspects predict academic success as well as attrition relatively well. However, perception of autonomy did not show a significant direct effect on the outcomes of study behaviour (learning outcomes or attrition), but this is an aspect that indirectly helps to explain learning outcomes or quitting studies; for learning outcomes, perception of autonomy is mediated by self-efficacy, and for attrition it is mediated by intention to quit.

5. Discussion

Supporting autonomy is uncommon in military training; instead, autonomy is rather weakly perceived and the effect of such a perception is not acknowledged⁸⁷. At the same time, the public training manual of the U.S. Army is based on a number of aspects found in self-determination theory; it gives instructions derived from these aspects for planning and conducting training with the purpose of improving the quality of training and supporting life-long choices⁸⁸. It can be concluded, therefore, that motivation theories, more widely followed in the civilian world, have found their way into the army training programs of developed countries to create favourable conditions for encouraging and maintaining learning motivation.

Our initial hypothesis, *perception of autonomy during training positively predicts appreciation of training*, was not confirmed in the example of the

⁸⁷ Raabe, J.; Zakrajsek, R. A.; Orme, J. G.; Readdy, T.; Crain, J. A. 2020. Perceived cadre behavior, basic psychological need satisfaction, and motivation of US Army ROTC cadets: A self-determination theory perspective. – *Military Psychology*, Vol. 32(5), p. 398.

⁸⁸ Hardy, W. 2015. *Enhancing Human Motivation: How Leveraging Self-Determination Theory Can Set the Conditions for Accelerated and Lifelong Learning*. Fort Leavenworth, KS: Mission Command – Capabilities Development and Integration Directorate, pp. 22–26.

conscripts that we surveyed, which might suggest that the effect is not the same in every learning situation. Therefore, the statement of SDT that the more students perceive autonomy, the more they appreciate relative training in later life⁸⁹ was not in accordance with the outcomes of this study. We must remember that, for the conscripts who participated in this study, military training was novel, many underwent the training reluctantly, and they did not associate it with benefits in later life. Considering the fact that a study conducted among conscripts in 2018–2019 revealed that more than half of conscripts would have preferred not to participate in conscription or participated reluctantly⁹⁰, we can assume that a positive attitude towards conscription tends to be the exception rather than the rule and a similar attitude also affected the outcomes of this study. Since measurements were performed at the first stage of training, an adjustment period for conscripts, the effect of perception of autonomy that develops over time could only become evident later. This would be especially important in the training of conscripts because studies have shown that appreciation of training⁹¹ has a long-term effect on the preferences and choices of a person.

We also detected a reverse effect: a later level of perception of autonomy depended on the previous level of appreciation of training. In the past, a similar relationship has been explained with the concept that motivated students impact the teaching techniques chosen by teachers⁹². The data of this study do not allow us to assess the truthfulness of such an explanation. At the same time, we detected a dependence of perception of autonomy on previous self-efficacy, which can be associated with accomplishments and participation in studies⁹³. The dependence of perception of autonomy on both appreciation of training as well as self-efficacy might indicate that more motivated students

⁸⁹ Ryan, Deci 2000, p. 76.

⁹⁰ Tooding, L.-M. 2019. Ülevaade hinnangutest ajateenistusele ja nende muutumisest teenistuse vältel. – Probleemsed suhted ajateenistuses. Kompleksuuringu 2018 – 2019 ajateenijate küsitluse aruanne. Tartu: SJKK, pp. 10–11. www.kvak.ee/files/2020/10/Kompleksuuringu-2018-2019-aruanne.pdf (05.11.2021). [Tooding 2019]

⁹¹ Lauermann, F.; Tsai, Y.-M.; Eccles, J. S. 2017. Math-related career aspirations and choices within Eccles et al.'s expectancy-value theory of achievement-related behaviors. – *Developmental Psychology*, Vol. 53(8), p. 1540.

⁹² Matos, L.; Reeve, J.; Herrera, D.; Claux, M. 2018. Students' agentic engagement predicts longitudinal increases in perceived autonomy-supportive teaching: The squeaky wheel gets the grease. – *The Journal of Experimental Education*, Vol. 86(4), p. 579.

⁹³ Tinto 2017, pp. 6–8.

can impact the manner in which studies are conducted. Instructors who see dedicated and confident soldiers dare to offer greater autonomy in training.

Our second hypothesis was that *perception of autonomy during training positively predicts self-efficacy*. From repeated measurements, dependence between the two aspects was confirmed as a mediated impact: the later self-efficacy of conscripts was weakly but statistically significantly dependent on the perception of autonomy through previous self-efficacy. We also detected a significant total impact (a direct impact of the perception of autonomy combined with its indirect impact on later self-efficacy). A student with enough experiences of success feels competent⁹⁴ and his or her self-confidence increases. This, in turn, will motivate the student to make an effort and prove that he or she is capable. A positive autoregression of self-efficacy is, therefore, expected. At the same time, the results indicate that self-efficacy in a learning environment could be affected by the perception of autonomy and that effect is important in forming later self-efficacy. Therefore, in addition to satisfying the need for autonomy, one needs self-regulation skills, including self-efficacy, to support one's learning motivation⁹⁵. The way a student perceives him- or herself, personal capabilities, and coping skills might become an important aspect in his or her studies and, therefore, the person instructing them must direct and support it. This allows us to assume that the formation and maintenance of the self-efficacy of conscripts is partially dependent on the opportunity to experience a certain autonomy in training. Therefore, training in the Defence Forces might benefit from the perception of autonomy as well as a sense of self-efficacy. For the purpose of developing the self-efficacy of a conscript, instructors should skilfully utilise persuasion and encouragement, lead by example, and offer experiences of success⁹⁶.

Our third hypothesis, *a perception of autonomy during training negatively predicts an intention to quit*, was also confirmed as having a mediated impact: the later intention to quit of conscripts was negatively dependent on the perception of autonomy through self-efficacy. Therefore, perception of autonomy might reduce the intention to quit if the self-efficacy of a conscript is high enough; this is also in concordance with previous research⁹⁷. We can conclude that, in addition to supporting autonomy, training must also consider

⁹⁴ Schunk, DiBenedetto 2016, p. 47.

⁹⁵ Pajares 1996, p. 21.

⁹⁶ Bandura 1997, p. 79.

⁹⁷ Delahajj, Theunissen, Six 2014, pp. 179–180.

the self-efficacy of students because this indicates a belief in one's individual learning and coping abilities, and decreases the intention to quit⁹⁸.

Analysis of the relationship between the motivational aspects and learning outcomes of conscripts revealed that the results were directly dependent only on the self-efficacy of respondents and the effect of a positive perception of autonomy manifested indirectly through self-efficacy. The autonomy of a student supports the formation of internal motivation but does not necessarily determine study results⁹⁹. Academic outcomes have been directly associated with self-efficacy¹⁰⁰. In a study conducted with students involved in the U.S. Army (active population and reservists, including veterans engaged in academic proceedings), Eakman et al. found that academic self-efficacy mediated the correlation between autonomy supported by an instructor and learning outcomes (total effect was 0.20 ($p < 0.05$))¹⁰¹. Therefore, autonomy should be supported not only to encourage commitment but also for and through self-efficacy that serves actual learning outcomes.

The results of this study show that attrition was negatively affected by the perception of autonomy through the intention to quit. We must add, however, that the effect of autonomy was rather modest regarding attrition. These results are in concordance with a previously designed drop-out model tested on high-school students¹⁰² and in a military study environment¹⁰³.

The score of intention to quit was higher for conscripts with lower self-efficacy, which is a similar result as one in a study published by Delahajj et al.¹⁰⁴ in 2014, even though the conscripts of the Netherlands are in service voluntarily and, therefore, it is probably easier for them to terminate training. Supporting autonomy might be beneficial for reducing the number of discharged conscripts because other connections that we determined indicate that this would support the greater self-efficacy of students by helping to

⁹⁸ Peguero, Shaffer 2015, pp. 57–58.

⁹⁹ Furtak, Kunter 2012, pp. 308–310; Gutiérrez, M.; Tomás, J. M. 2019. The role of perceived autonomy support in predicting university students' academic success mediated by academic self-efficacy and school engagement. – *Educational Psychology*, Vol. 39(6), p. 729.

¹⁰⁰ Schunk, D. H. 1989. Self-efficacy and achievement behaviors. – *Educational Psychology Review*, Vol. 1(3), pp. 177–178.

¹⁰¹ Eakman, A. M.; Kinney, A. R.; Schierl, M. L.; Henry, K. L. 2019. Academic performance in student service members/veterans: Effects of instructor autonomy support, academic self-efficacy and academic problems. – *Educational Psychology*, Vol. 39(8), p. 1018.

¹⁰² Hardré, Reeve 2003, pp. 354–355; Vallerand, Fortier, Guay 1997, p. 1172.

¹⁰³ Delahajj, Theunissen, Six 2014, pp. 179–180.

¹⁰⁴ *Ibid.*

decrease the intention to quit as well as actual quitting. We must remember, however, that there is a number of other reasons behind attrition: health-related, social economic, and other issues¹⁰⁵ whose impact alongside the method of training cannot be overlooked.

We can conclude from the results of this study that all the motivational aspects monitored herein are important because, when combined, they help to explain study outcomes as well as the actual termination of studies. A perception of motivational aspects monitored herein, therefore, supports a person's dedicated and productive study and decreases their intention to quit. Intention to quit combined with a number of other external factors is, in turn, related to the termination of studies. From the viewpoint of later learning outcomes and the termination of training, the first period of training is extremely important because this is the time when students and conscripts must adjust to new living arrangements, face their fears and, more broadly, adapt to an unfamiliar environment. Considering the relationship between the aspects that we identified, including mutual dependence in repeated measurements, we must approach the motivational aspects analysed herein in a complex manner to better understand productive and dedicated learning as well as the termination of training.

We can foreground the importance of the perception of autonomy (a student can manage him- or herself, set personal goals, make choices, take responsibility for his or her actions, etc.), which is one of the bases of a contemporary approach to learning and is used to guarantee learning motivation and satisfaction. We can also conclude that the perception of autonomy during training can have an impact on different motivational aspects (including the study results of a student and attrition) but their interrelation and mediation by other aspects may be more complicated. At the same time, results revealed that the perception of autonomy itself can be shaped by other motivational aspects. Therefore, there is a need to analyse the connection between the motivational aspects monitored herein even further.

Considering the current study as well as the teaching norms and the usual pedagogical practice of the Defence Forces¹⁰⁶, additional knowledge on the motivational aspects analysed in this study might turn out to be a fresh input to improve the study environment of the Defence Forces. If we were to raise the awareness of the members of the Defence Forces about the impact of

¹⁰⁵ Godlewski, Kline 2012, pp. 264–265; Salo 2008, pp. 191–196.

¹⁰⁶ Sinnep 2018, pp. 146–147; Värno, Soomere, Lepp 2019, p. 53.

autonomy and other motivational aspects analysed in this study, and about the methods that can be used to support these in training, it could help to increase interest in conscription as well as in reservist exercises and have a wider impact on the positive image of the Defence Forces.

Affecting the external and personal aspects of the motivation of a student—for example, solving his or her social economic or family issues—is not in the hands of a lecturer or an instructor but in a supportive learning environment that arouses the dedication of a student and reduces the intention to quit, which can be designed by anyone who conducts studies. Such a thing requires, for example, an encouraging attitude, inspiring examples, using appropriate methods and means, offering experiences of success, and also providing the opportunity to safely make mistakes and helping to understand the importance and significance of the subjects being taught¹⁰⁷. In a wider theoretical framework, the results of this study indicate an interaction between several important motivational aspects and the way in which it can affect later perception of these aspects, actual learning outcomes, and the termination of studies. The study also indicates the importance of autonomy as a primary necessity in military training.

Although the results of this study generally support our theoretical starting points, we should be careful in our interpretation. One significant limitation is the generalisability of the results of this study. Since we only surveyed conscripts drafted into the Kuperjanov infantry battalion, we cannot presume that the results of this study are representative and applicable to the conscripts of all national defence units. Another limitation might be that factors external to the studies and the learning environment were not controlled during this study, which is why the impact that they have on the results is unclear.

The KV-AEVL questionnaire designed for this study, as well as the connection that we determined between the productivity of conscript training and attrition, are promising. If problems are identified and solving them is supported, increasing and developing defence capabilities can turn greater focus to human resources. For the purpose of improving the quality of training and applying an efficient contemporary approach to studying, instructors and commanders definitely need additional instructing. The KV-AEVL questionnaire should also be constantly improved in accordance with future studies to guarantee the precision of the means of measurement. The results of this

¹⁰⁷ Bandura 1997, p. 79; Ryan, Deci 2017, pp. 97–98.

study indicate that a survey like this can give us important information about how conscripts cope.

In this study, we monitored the relationship between motivational aspects but not their development over time. However, monitoring such a development in motivation surveys conducted with conscripts in the future might give us important additional information about the impact of training, especially since a decrease in motivation has been repeatedly noted among conscripts of the Defence Forces¹⁰⁸.

6. Conclusion

The objective of this study was to determine the relationship that the perception of autonomy has with self-efficacy, appreciation of training, and the intention to quit, and the relationship of these aspects with learning outcomes and attrition among conscripts using repeated inquiries. The hypotheses established in this study were generally confirmed: the perception of autonomy positively predicted later self-efficacy and negatively predicted a later intention to quit, with a greater perception of autonomy being in positive correlation with the learning outcomes of conscripts and in negative correlation with attrition. At the same time, the perception of autonomy did not predict a later appreciation of training.

Despite the limitations, the results of this study are valuable because they offer new insight into the applicability of the principles of educational sciences in the context of conscription. The Defence Forces are restricted in deciding who to draft. In competition with other areas of life, conscripts must be approached with contemporary methods that would increase their motivation to contribute to national defence. This study confirmed that the perception of autonomy, self-efficacy, and appreciation of training are important motivational aspects whose combination does not only affect the intention to quit, but also actual quitting. Focussing on only a single aspect in methodological approaches may not provide the desired result of efficient training. Dedication to training among conscripts and students can more likely be supported by considering the combined effect of motivational aspects where the perception of autonomy has a central significance.

The results of this study allow suggestions for their potential application and research directions in the future. The means of measurement used

¹⁰⁸ **Tooding** 2019, pp. 10–11.

herein may be suitable for monitoring the conscripts and active servicemen of the entire Defence Forces. This does not have to be restricted to collecting cross-sectional data at the beginning of training; we also need longitudinal studies conducted over a longer period of time with different classes. Such an approach can offer a lot of information about the perception of motivational aspects about different types of training conducted at different times and in different manners in the Defence Forces. In this way, instructors and lecturers can collect information about different options to improve their methods in order to teach people more efficiently and support their study motivation, while also offering life-long choices for those people interested in a career in the Defence Forces and for reservists.

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Scale	State- meas- ure- ment	M	SD	P1	P2	P3	P4	P5	P6	S1	S2	S3	S4	S5	S6	A1	A2	A3	II
SI	t1	5,63	1,31	0,26**	0,32**	0,24**	0,30**	0,14**	0,14**	—	—	—	—	—	—	—	—	—	—
	t2	5,90	1,29	0,41**	0,41**	0,41**	0,40**	0,27**	0,35**	—	—	—	—	—	—	—	—	—	—
	t1	5,59	1,35	0,27**	0,33**	0,29**	0,31**	0,16**	0,18**	0,70**	—	—	—	—	—	—	—	—	—
	t2	5,83	1,33	0,32**	0,36**	0,37**	0,38**	0,26**	0,33**	0,72**	—	—	—	—	—	—	—	—	—
S3	t1	5,40	1,40	0,28**	0,36**	0,26**	0,31**	0,20**	0,22**	0,75**	0,78**	—	—	—	—	—	—	—	—
	t2	5,09	1,59	0,28**	0,35**	0,38**	0,36**	0,34**	0,32**	0,55**	0,64**	—	—	—	—	—	—	—	—
	t1	5,87	1,34	0,24**	0,30**	0,26**	0,29**	0,15**	0,16**	0,75**	0,66**	0,69**	—	—	—	—	—	—	—
	t2	6,08	1,34	0,33**	0,36**	0,35**	0,38**	0,30**	0,35**	0,77**	0,69**	0,54**	—	—	—	—	—	—	—
S5	t1	4,93	1,62	0,24**	0,26**	0,22**	0,20**	0,11*	0,18**	0,59**	0,54**	0,57**	0,55**	—	—	—	—	—	—
	t2	5,02	1,55	0,31**	0,34**	0,35**	0,28**	0,33**	0,35**	0,59**	0,55**	0,46**	0,52**	—	—	—	—	—	—
	t1	4,59	1,52	0,27**	0,29**	0,27**	0,20**	0,13*	0,24**	0,57**	0,48**	0,54**	0,50**	0,74**	—	—	—	—	—
	t2	4,77	1,58	0,30**	0,31**	0,36**	0,27**	0,34**	0,30**	0,47**	0,43**	0,39**	0,45**	0,77**	—	—	—	—	—
A1	t1	5,20	1,45	0,31**	0,31**	0,31**	0,29**	0,17**	0,23**	0,44**	0,38**	0,41**	0,43**	0,43**	0,41**	—	—	—	—
	t2	5,20	1,46	0,43**	0,46**	0,45**	0,36**	0,32**	0,38	0,52**	0,49**	0,47**	0,51**	0,44**	0,40**	—	—	—	—
	t1	5,55	1,37	0,18**	0,30**	0,28**	0,31**	0,23**	0,17**	0,44**	0,35**	0,40**	0,43**	0,35**	0,37**	0,60**	—	—	—
	t2	5,76	1,35	0,40**	0,36**	0,42**	0,45**	0,33**	0,33**	0,47**	0,51**	0,43**	0,50**	0,39**	0,37**	0,58**	—	—	—
A3	t1	5,35	1,41	0,37**	0,34**	0,35**	0,34**	0,23**	0,29**	0,45**	0,41**	0,43**	0,41**	0,43**	0,39**	0,77**	0,58**	—	—
	t2	5,31	1,49	0,45**	0,48**	0,48**	0,39**	0,39**	0,42**	0,45**	0,48**	0,48**	0,48**	0,48**	0,48**	0,80**	0,64**	—	—
	t1	3,51	2,21	-0,20**	-0,18**	-0,12**	-0,17*	-0,04	-0,09	-0,43**	-0,37**	-0,45**	-0,44**	-0,32**	-0,32**	-0,33**	-0,29**	-0,34**	—
	t2	3,46	2,13	-0,26**	-0,26**	-0,23**	-0,21**	-0,16**	-0,20**	-0,48**	-0,35**	-0,42**	-0,44**	-0,35**	-0,29**	-0,37**	-0,29**	-0,33**	—
IQ	t1	2,59	1,86	-0,12*	-0,14**	-0,05	-0,15**	-0,06	-0,03	-0,55**	-0,51**	-0,56**	-0,64**	-0,43**	-0,40**	-0,31**	-0,31**	-0,30**	0,53**
	t2	2,30	1,82	-0,20**	-0,26**	-0,22**	-0,25**	-0,14*	-0,17**	-0,59**	-0,50**	-0,44**	-0,66**	-0,36**	-0,28**	-0,35**	-0,41**	-0,37**	0,62**

Notes: * p < 0,05, ** p < 0,01; Cronbach α : I measurement (PA = 0,88; SE = 0,90; AT = 0,85; IQ = 0,65); II measurement (PA = 0,89; SE = 0,90; AT = 0,87; IQ = 0,74)

Annex 2. Results and factor loadings of confirmatory factor analysis

Factor	Statement	Measurements	
		t ₁ (N = 356)	t ₂ (N = 342)
		$\chi^2 = 112.08$	$\chi^2 = 86.75$
		df = 113	df = 113
Perception of autonomy in training (PA)	P1 I feel like instructors offer me a variety of options and opportunities.	0.80	0.73
	P2 I feel like my instructors understand me.	0.82	0.84
	P3 My instructors make me feel confident that I can cope with training.	0.77	0.84
	P4 My instructors encourage me to ask questions, help and explanations.	0.68	0.73
	P5 My instructors listen to my suggestions about different ways to do things.	0.63	0.66
	P6 My instructors try to understand my perception before suggesting new ways to do things.	0.70	0.75
Self-efficacy in training (SE)	S1 <i>I am relatively certain</i> that I can manage conscript training.	0.85	0.88
	S2 ... during difficult periods in conscription, I am able to pull myself together.	0.77	0.80
	S3 ... during difficult periods in conscription, I am able to cope.	0.84	0.74
	S4 ... I can pass conscript training.	0.80	0.85
	S5 ... by the end of conscription, I will be more successful than an average conscript.	0.72	0.72
	S6 ... after passing conscription, my commanders would give me a higher rating compared to my companions.	0.70	0.65
Appreciation of training (AT)	A1 Conscript training seems valuable to me.	0.84	0.85
	A2 Conscript training seems important considering my future service.	0.71	0.76
	A3 I value the learning activities offered in conscript training.	0.88	0.89
Intention to quit (IQ)	I1 I have thought about terminating my conscript training.	0.68	0.76
	I2 I am not certain if I can pass conscription.	0.71	0.78

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