



Latvia University
of Life Sciences
and Technologies



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TALLINN UNIVERSITY

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Foreword

The Institute of Mechanics and Design of the Faculty of Engineering and Information Technologies, Latvia University of Life Sciences and Technologies organizes the annual international scientific conference **Rural Environment. Education. Personality (REEP-2024)**. The authors of the articles are from 6 countries – Georgia, Poland, Latvia, Lithuania, Estonia, and Bulgaria. Totally 10 educational establishments are represented in the proceedings.

Aim of the Conference: to find out solutions, exchange ideas or highlight topical problems on the 21st century education tendencies in university and adult education, competence, education for sustainable development, career development and personality development in diverse and inclusive environments. Thematic groups of the articles:

- rural environment and career,
- education for a changing world,
- personality development in diverse and inclusive environments.

The focus of the conference is career counselling, digital strategy for the remote and combined training, factors affecting labour productivity, implementation of innovative teaching, strategic development of lifelong learning, new learning strategies, supervision opportunities, self-efficacy and professional achievement.

Articles in the first section on **Rural environment and career** describe the topics: *Navigating the Challenges: Street Youth in Latvia and Their Journey to Career Opportunities* - the results show that street youth are coming to street because of problems at home (lack of parenting, parent abuse, addictions in families and problems in school as well). Theoretical research shows that youth needs more support and services prior their becoming street youth, it emphasizes the importance of prevention. *Self-Study Approach Model to Promote Career Development for Adolescents* - the results show that using the self-exploration model, adolescents acting independently and self-efficiently, performing the tests and tasks included in the model, applying self-directed career development management, can meet their career development needs individually, make informed and self-appropriate choices for further studies or career path, that match their unique strengths and interests.

Articles in the third section on **Education for a Changing World** describe the topics: *Students' Spiritual Well-Being in the Context of Digitalization* – it was concluded that while being emersed in the digital environment, spiritual well-being plays important role in overcoming students' anxiety and stress and helps them to find peace and resilience in nature, in the community with their family members and in search for the transcendental. *Challenges in Cooperation between Farmers and Educational Institutions in Klaipėda Region: the "Farm-to-school" Model Approach* - the results show that the needs and expectations for cooperation of Klaipėda region farmers, municipal employees, and educational institutions as buyers of services basically coincide. Research participants agreed that food from local growers is good, and they would like children to be fed quality food from local farms in schools. However, the results of the study assumed the insufficient literacy of small and medium-sized farmers to effectively develop cooperation with educational institutions. *Evaluating the Necessity of Educational Competence for Lecturers Through Digitization of Study Subject Content* - the results show that the development and use of digital tools require not only learning the different tools for digitisation, but also knowing what didactic purposes they can be used for and what learning goals they can be used to achieve. Thus, digitising the content of the subject begins with the selection of appropriate tools that serve specific didactic goals. The findings underscore the imperative to improve educational competence through the digitisation of study subject content. *The Influence of Adolf von Clauson-Kaas on the Development of the Subject of Craft in Estonia* - particular attention was paid to Clauson-Kaas's views on the role of craft in children's general development. Clauson-Kaas's views were also compared with the progressive pedagogical ideas, including craft becoming a subject and awareness of the educational importance craft.

Articles in the fifth section on **Personality Development in Diverse and Inclusive Environments** describe the topics: *Exploring the Gap Between Pro-Environmental Beliefs and Behaviour Among Students* – the study found that, on average, good pro-environmental knowledge was less likely to translate into sustainable consumption behavior. It is therefore essential to undertake a range of awareness-raising and behavioural change motivation initiatives as part of a national campaign. Social media is a favourite communication tool for young people, but the problem of motivating young people to seek out and visit relevant websites remains. *A Longitudinal Study on the Development of Moral Character in Early Adolescents: Intermediate Results* – the results revealed that Latvian pupils have a good understanding of moral growth processes and an increasing maturity in their decision of becoming better persons. However, their practical involvement in their own moral development and their emerging moral identity need to be supported in the family and at school. *Sanitary (Medical) Service of Latvian Armed Forces, Its Formation and Activities in the Period of Independence War 1918-1920* – the results indicated that Sanitary (Medical) service of Latvian Armed forces successfully solved the tasks of Health care and saved the lives and health of hundreds and thousands of soldiers. Sanitary (Medical) service provided significant and effective Healthcare system of personnel, managed of medical treatment facilities in period of Independence war; supported and taken guidance of medical logistic process. *The Role of Stress and Conflict Management in Sustainable Business Processes* – the role of organizations in the process of sustainable development is highlighted, as well as the need for employee training, job satisfaction, and innovation. It is worth noting that there is limited research and literature in this area, despite the fact that sustainable management requires more complex changes, and the timeliness of these changes is crucial, which depends on the employees and effective management.

Authors of the articles – professors, lecturers, teachers, master and doctoral students have made a significant scientific contribution to the preparation of this international proceedings and shared their experiences on topical issues of conference topics.

Many thanks to the chief of all conference section Baiba Briede for organization and management of effective work of section.

I would like to express my deepest gratitude to the team of conference organizers and the scientific committee for their significant contribution to improving the work and guaranteeing the quality of scientific papers and ensuring successful working sessions.

On behalf of the Conference Organizing Committee
Associate professor Natalja Vronska
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Rural environment and career

Navigating the Challenges: Street Youth in Latvia and Their Journey to Career Opportunities

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Abstract: Topicality of the research is given by the author's observation of street youth situation in Latvia – there is no data about them, there are a few services for them, but quite a lot of young people choose streets as their way of living. Their future depends on choices they made in the early age– not attending school leads to lack in education and low possibility to be involved in education, training and, as a result, getting desired job and being successful in professional life. The aim of the pilot study is to realize what kinds of issues street youth are facing, what are their desires about professional development and how are they looking into their future. Methodology includes theoretical research on the topic and small qualitative research which consists of five questions. The questions covering respondents plans towards their future, education possibilities and reasons that brought them into streets. The results show that street youth are coming to street because of problems at home (lack of parenting, parent abuse, addictions in families and problems in school as well). Theoretical research shows that youth needs more support and services prior their becoming street youth, it emphasizes the importance of prevention.

Keywords: social work, street youth, career counselling, career development.

Introduction

Riga is capital of Latvia, European democratic country and when visiting it you won't see badly dressed and not good looking groups of youth scrolling around city centre or suburbs in order to find some activities. That was in 90th. Today it looks even worse. Clean, very authentic city with expensive cafes and young people ordering drinks to go, but actually there is youth that doesn't have a safe place to live. They choose street.

There is no statistics in Latvia about street youth, but it is considered that it might be around thousands of young people who need help (Baltic News, 2022).

90% of street youth ends up at the street because of the problems in family and, most of the times, they don't want to get any help because they are afraid to get into even more trouble that they have now (Baltic news, 2022). Most of the times the reason that bring kids onto street is violence at home, parental addictions and shame and fear to ask for help, because at some level having "family problems" is still might be stigmatized.

Street youth definition differs from country to country. For example, in a lot of countries street youth is considered "Runaway and homeless children and adolescents living on the streets of cities and having no fixed place of residence" (XMRI, 2023). In case of Latvia it is a bit different, because rate of homeless young people are very low, that's why we consider street youth as young person aged 7-29 who spends most his/her time outside. By outside we mean streets, shopping malls, parks, public transportation stops and other places that infrastructure of the city provides (Grīnhofa, Āboliņa, 2019).

There are some similarities or features of street youth in Latvia:

- they have a permanent street location or a regular occupation in a street environment (e.g. illegal ways of earning money for a living, slot machines, computer games, etc.);
- they often form their own social group as a means of survival;
- they (if they are of compulsory education age according to the legislation of the Republic of Latvia) tend to not attend school or attend irregularly, thus dropping out of the education system and without being under the supervision of state or local authorities;
- have weak family ties, parents are not interested in the young person's lifestyle and hobbies, problems (Ielu jaunatnes ABC, 2022).

So, Latvian street youth most of the times has a home but don't want to come home and prefer to spend time outside, make meaningful connections outside and live life to the fullest outside. This full life usually is not socially acceptable, because make young be to drop off educational system, gets them into addictions, violence, criminal records. Definitely not what European society want their youth to look like and how they spend their time.

Street youth also is part of what is called NEET – not in employment, education or training young person aged between 15 and 29 (Eurofound, 2023).

There is variety of social services provided by state and non-governmental organizations for street youth in Latvia, especially last few years street youth and youth problems, in general have been one of the publicly demonstrated problems. New projects, services, organizations were established in order to provide assistance and help for street youth and youth with different kind of problems.

Thinking about street youth major problem is how to involve them in different activities and make them use available services. This is crucial. For a young person that chooses to live “free” life is might be hard to accept that it is interesting to go somewhere and take part in some activities. That's why street social workers (and other professionals who are coming directly to places where street youth are spending their time) are so important.

When working with street youth not only social services are important and crucial. Urbanization and city planning plays really important role – creating and developing city architects must cooperate with people from welfare organizations – how to create city youth friendly, to provide safe places for spending time, how to avoid dark, shadow covered, dirty places where, usually, youth are hiding (Placino, Rugkhan, 2023).

Case differs from municipality to municipality in Latvia, but speaking about the capital – Riga (the biggest city of the country, typically provides a huge variety of services for different groups) Social Service provides services for home based kids and youths. In case street youth is coming to Social service then most likely a social worker will try to bring him back home, if it is not working he will be placed in a crisis centre.

Non-governmental organizations in Riga provide day care centers and different activities during the day and in the evening, but street youth mostly tends to spend time outside. There are mobile social workers groups that are goings to places where youth tends to spend time in the evening. They are trying to create some meaningful relationships with youngsters, to hear their stories and try to figure out how to help them. With one person from this group author of the article spend some time while preparing it.

Last and most important thing – what's next? For example, in America around 4.2 millions young and young adults experience homelessness which is radical continuation of being street youth (NCSL, 2023). Young people living on the street or just spending time on the street are more likely to have health issues, addiction issues, can became victims of sexual assault, gain criminal records and everything in between you can imagine that happens on the street.

Providing services is important, but also important to understand roots of the problem. Why young people choose to be outside, choose to leave their home that supposed to be best place in the world? Everything starts with a family. Society, governmental services should work more on providing safety environment at home, giving to people opportunities to work, earn money, spend free time meaningfully and provide everything for the family needs. Provide safety in school and public areas, so kids feel safe, loved and needed.

Some of the street youth say, that they choose street because it is easier to became “a bad boy” that to solve complicated problems at home or in school (Balleste-Isern, Feixa, 2022). Might sound really weird, but for some young people all over the world it is easier to be in the street and to take this culture and way of living than to go to school, to see their parents struggling, to feel fear of being abused and neglected (Bwambale, Birungi, et al., 2022).

The aim of the pilot study is to realize what kinds of issues street youth are facing, what are their desires about professional development and how are they looking into their future.

Methodology

Monographic method has been used to provide this study. Available literature (printed and online versions) about career counselling for street youth, social work and social work with street youth were used. The author used sources in Latvian and English. Previous research in the field related to the theme of article was used.

In addition, quantitative research was carried out – authors, accompanied with a social worker, went out to the street and interviewed five youth and one social worker who were asked to answer a few questions on career opportunities for street youth and their future in general.

For street youth:

1. Have you been thinking about your future job?
2. Who would you like to become?
3. Have you heard about career counselling?

For a social worker:

1. How often do you talk about career future with street youth?
2. What is a typical path of street youth?

Answers were recorded on tape and then decoded into text; pieces of the short interview (each around 10-15 minutes) are shown in the article.

Participants were five street youth age from 13 to 16, technically involved in formal education, but not taking part in it and two social workers, 36 years old, with 9 years of experience in the field.

The current empirical research was carried out in the streets of Riga during October 2023. The participants of research were the following: 5 females between the age of 13 to 16 (Mean (M) = 14.4, Standard Deviation (SD) = 1.14).

Results and Discussion

All conversations with street youth happened in two evening/nights of going out to the field with a social worker. The author should admit that street youth were not interested in speaking to author, after short conversation with a social worker (who is already known and accepted) two of them accepted to talk during the first evening and three on the second attempt during the second evening. In total, the authors tried to reach 16 potential respondents and only five of them agreed to answer questions. The author talked to a social worker before going out to streets. Both authors talked to youth one by one according to prepared questions.

Starting to research the topic about the street youth in Latvia the author realized that the term exists separately from the real situation. Many (if not all) youth that now are considering street as a safe place are trying to escape trauma that they previously got from parents, peers, school (Haley, Roy, 1999).

Having unstructured interviews with a different social worker who works with unmotivated youth, street youth in social service, community centres and day care centres the authors realized that there are not so many “real street youth” like young people who actually have no home and for them, obviously, any ideas and talks about future are not realistic while basic needs are not covered. There are no statistics about how many street youth are there in Latvia.

All the street youth author was talking to have homes and at least one parent with whom he/she is living, so the author considers them as the street youth, but not homeless. Technically they have where to live in and most of them most of the time go home to sleep, but not having meaningful interactions at home and a feeling of “home” that is very valuable to most people.

Replying to the first question four out of five respondents mentioned that they have not been thinking about their future job. One respondent (girl, 14) mentioned that she has been thinking about it and she is afraid: *“I sometimes think about it, but it makes me feel anxious. Like I dream to live, I want to travel to France one day, but then I see my mom, my friends and I realize that nothing from my dreams can happen”*.

Next respondent mentioned that her mum is using alcohol too much and she realises that she won't have any support from family in her future.

This idea or motivation to stay on the street is very typical for youth. In conversation with the social worker authors got to know Latvian "real street youth" meaning – the number of the youngsters who are really homeless is very low. There is no official statistics because it is almost impossible to get one, but in general Latvian climate is not so friendly for living on the streets even during summer and infrastructure as well. The social worker also mentioned that even some people try to live on the street local inhabitants quite quickly will call the police and police will bring the person to a shelter.

Latvia is not an exceptional case – street youth face similar problems that street youth all over the world – lack of housing, health issues, mental health disorders, substance abuse, physical abuse, unwanted pregnancies, assault (Roy, Robert et al., 2014). Absence of education, job opportunities and clear life development plan is a big deal for street youth.

According to the street social worker they want to improve their life, at least, they want to have a house, to have money, food, friends etc. Not all of them understand that in order to have it all you need to work hard and achieve it, maybe even harder if it wasn't given to you by your family. The social worker sees it as a main focus of her job – to show street youth that everything is possible and a career is part of it.

The social worker mentioned that she speaks to street youth about future quite often, tries to motivate and here is the biggest struggle. When individual is not having proper housing and basic need are not covered she with a team try to solve their situation with help of different sources and projects. In general, it is not that hard to find housing for street youth if he/she accepts help. Then it is important to work on putting individual into schooling system or job market (depends on age and situation). And here is where the problems start.

One of the respondents (16 years old) agreed to live in a crisis center where she can live for free and all her needs will be covered (food, health, clothes etc). while social workers are working with her mom, but she was not attending school, hasn't even tried, because *"school is boring, there is nothing I can do there. I'm not interested in math or languages; it is not needed in life. I want to make money. Maybe I will become a famous Tiktoker or will earn money on Onlyfans. School education is not able to provide me with what I want"*.

Here we can see few problems – for 16 years old girl who have "seen it all" it might be very frustrated to come to regular school where her classmates will be girls and boys living at homes with their families who, probably, can't even imagine what she went through. She might feel out of the box there – not accepted, not needed, just different., she definitely needs a different way of getting education, but there is nothing the system can provide – regular schools for all different type of people out there and tired teachers who are not able to provide "individual" learning style for every student.

It brings us to the second question for respondents – who would you like to become. Three of five respondents mentioned that they don't care about the actual job – they just want enough money for living and they are ok to work anywhere to achieve it. One respondent (15) mentioned that she would like to work as a nurse in a hospital. She said that this autumn she started to attend school again and hopes to finish it and then go to college. Another two respondents mentioned that they don't see any reason for working because it is hard and bring small amount of money, but to earn a lot you need to get good education. Asking them if they are planning to get education the author received answers – *"Education is not for us. Not for people like us."* That shows that street youth feel the difference between them and "home and family kids", feel that they have different opportunities. Mainly it shows as street youth feeling that they don't have support– when you can come home and get love and acceptance from parents no matter what have happened and what you have done (Decker, Weerman, 2005).

When asking respondents about career counselling all of them mentioned that they have heard about career counselling at school and three of them have participated in group session with career counsellors at school. Asking about how could career counsellor help them with education choices and getting some professional goals created and achieved respondents' thoughts were different.

Two respondents mentioned that conversations they had with a career counsellor at school were quite interesting and useful. One of them mentioned that she would like to come to career counsellor again, because they were doing some interesting games and tests and respondent liked it a lot. Another respondent mentioned

that in her school there was a career counsellor available, but it was one of the regular teachers of school doing this job and respondent was afraid that if she goes there her information won't stay confidential. This fear kept her from using service.

Another two respondents mentioned that they personally never used career counselling services, but some of their classmates and friends did and some of them said that it was even interesting at some point, so they both consider using it when it will be possible. One of these two respondents mentioned that to use this service she needs to get to school and this is not her preferable scenario in near future.

According to Setlhare-Meltor and Wood street youth living in harmful environment could potentially benefit from personal, individual oriented counselling (Setlhare-Meltor, Wood, 2016). They mostly benefit from personal approach, and they are motivated to act when there is someone who is interested in them, ready to listen and to talk, when young girl or boy feel personally connected with a counsellor and feel responsibility to act.

This might be the case that street youth are in lack of parental attention or significant adult in their life and they are not experiencing interest in them, not from "the system", but from a real person. Love and attention cannot solve all problems, but certainly can solve some of them.

Thinking about systematic approach to street youth problem it is hard to implement attitude in the system, not only available services and assistance. That brings us to human resource management and how to find passionate professionals ready to help youngsters to find way for better future. That often is a real problem even when financial support is adequate there a huge lack of career counsellors and social workers who are ready to start their journey.

Speaking with the social worker the author found out that youth are quite often speaking about their possible future and how they could live their life. It covers career topics as well. The social worker mentioned that *"most of the time youth are not limited in their imagination and dreaming about becoming artists, entrepreneurs etc., but when I mention to them that in order to get there, they need to start with little steps like going to school, planning to get into university or college or get another plan. I don't want to say that dreaming is bad or something, but dreaming is not enough. Let's say, we are not equal at all, like we should be in theory. We all have different starting point in life and when you don't have proper family support, have lack of education, maybe some addiction history it is harder to start"*.

That sounds like harsh truth or something similar. According to Mintz (2022) who investigate how people with disabilities can succeed in professional career mention that one of the biggest roles goes to professionals who accepts youth at their places – workplace, university, college etc., but here youth participation is needed – to be brave enough and to tell that you need slightly more attention and help than, maybe, others.

It is hard to ask from *society* to be tolerant even if we are speaking about tolerance every day, but you can find individual who will be personally interested in youth success. That is how the author sees a social worker working with street youth.

Answering the second question about youth's typical path, the social worker mention, that there is no such thing as "typical paths", but some similarities could be seen. Starting from not so positive – many girls become pregnant very early, way earlier that they would want to and be ready to became a mother, usually it brings more complex problems to the girl and her family. Some people try to get education, usually it is professional education and, most of the times, youth understands when they go out looking for a job and work at several places where education is not needed. Usually, it is places where no one wants to work because of low salary, difficult work conditions or something similar. At that point youth might consider getting some qualification, because they realize that when you have qualification you can get better salary, better conditions.

To sum up with words of the social worker *"You know, life is life. I always worry about my girls and boys [mean – clients] and am always ready to help them with advice, with some real help or just to listen to them and I'm always happy when they are doing good. There is no certain path we should suggest to all of them and I accept that at some point some of them are choosing wrong ways, but I truly believe that we, as professionals, should create a safe space to all of the street youth where they can come and ask for help and get it"*.

Conclusions


- Street youth in Latvia is a group that needs multiprofessional support;
- Street youth considers streets as safe and normal place to spend time, that's why service providers should come to youth and meet them in their safety place;
- Street youth are choosing their path because of numerous problems at home and in school;
- Street youth are thinking about their future, but their dreams and thoughts often are not connected with reality;
- Social workers and career counsellors should help street youth to create understandable way of dealing with problems and moving forward – you need to study in order to get a proper work in future;
- All of the street youth respondent has heard about career counselling, some of them have good reviews about it, but they are not considering it as serious resource for their future;
- The social worker working with street youth mentioned that street youth are speaking about their future (including career) quite often, but it is more on a dream level;
- Street youth's typical path can be very different from very positive scenarios when it is just a phase of life, to quite a negative one when it becomes a full-time lifestyle. All professionals who deal with street youth can make impact on youth's choices.

Bibliography

1. Baltic News (2022) Street youth – thousands in Latvia may need help; is looking for ways to support the campaign. Scribbr.: <https://baltics.news/2022/05/08/street-youth-thousands-in-latvia-may-need-help-is-looking-for-ways-to-support-the-campaign/>
2. Baltic News (2022). Violence, parental addiction, fear of asking for help – reasons why children and young people end up on the streets. Scribbr.: <https://baltics.news/2022/05/19/violence-parental-addiction-fear-of-asking-for-help-reasons-why-children-and-young-people-end-up-on-the-streets/>
3. Ballesté-Isern, E., Feixa, C. (2022) Creating Insecurity Through Youth Street Groups and Applying Security for Control and Governance. A Case Study of Barcelona Latin Kings. *Crit Crim* 30, 741–756 <https://doi.org/10.1007/s10612-022-09653-w>
4. Bwambale, M.F., Birungi, D., Moyer, C.A., Bukuluki, P., van den Bome, B. (2022). Migration, personal physical safety and economic survival: drivers of risky sexual behaviour among rural–urban migrant street youth in Kampala, Uganda. *BMC Public Health* 22, 1119. <https://doi.org/10.1186/s12889-022-13516-y>
5. Decker, S., & Weerman, F. (2005). European street gangs and troublesome youth groups / edited by Scott H. Decker and Frank M. Weerman. Lanham: AltaMira Press.
6. Eurofound. (2023) Eurofound research on NEETs. Scribbr.: <https://www.eurofound.europa.eu/en/topic/neets#eurofound-research>
7. Grīnhofa, G., Āboliņa, B. (2019). Metodoloģiskās vadlīnijas praktiskam ielu jaunatnes darbam rīgas pašvaldībā. [*Methodological guidelines for practical street youth work in Riga municipality.*] Scribbr.: https://izglitiba.riga.lv/media/RD_IKSD/2019/01_2019/Bolderaja_Vadlinijas_pdf.pdf (in Latvian)
8. Haley, N., Roy, E., Canadian street youth: Who are they? What are their needs?, *Paediatrics & Child Health*, Volume 4, Issue 6, September 1999, Pages 381–383, <https://doi.org/10.1093/pch/4.6.381>
9. Ielu jaunatnes ABC (2022). Mācību materiāls jaunajiem ielu jaunatnes darbiniekiem. [*Training material for young street youth workers*] Scribbr.: <https://tntk.tartu.ee/wp-content/uploads/2023/03/Ielu-jaunatnes-ABC-macibu-mater-ials-jaunajiem-ielu-Latvian-version.pdf> (in Latvian)
10. Minz, K.T. (2022) Serendipity and Social Justice: How Someone with a Physical Disability. *Succeeds in Clinical Bioethics Narrative Inquiry in Bioethics*. Volume 12, Number 3, Winter 2022 [10.1353/nib.2022.0061](https://doi.org/10.1353/nib.2022.0061)
11. NCSL. (2023) Youth Homelessness Overview. Scribbr.: <https://www.ncsl.org/human-services/youth-homelessness-overview>

12. Placino, P., Rugkhaman, N.T. (2023) Making visible concrete's shadow places: mixing environmental concerns and social inequalities into building materials. *Environment and Urbanization*. <https://doi.org/10.1177/09562478231214140>
13. Roy, É., Robert, M., Fournier, L., Vaillancourt, É., Vandermeersch, J., Boivin, JF. (2014). Residential trajectories of street youth-the Montréal Cohort Study. *Urban Health*. Volume (5):1019-31. [https://doi: 10.1007/s11524-013-9860-5](https://doi:10.1007/s11524-013-9860-5)
14. Setlhare-Meltor, R., Wood, L. (2016). Using Life Design with Vulnerable Youth. *The Career Development Quarterly* 64(1), p. 64-74. [10.1002/cdq.12041](https://doi.org/10.1002/cdq.12041)
15. XMRI (2023). Medical dictionary. Scribbr.: <https://www.xmri.com/resource-center/dictionary.html?term=111970>

Self-Study Approach Model to Promote Career Development for Adolescents

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Abstract: Access to career support services and education is an important part of modern life. An essential step in the process of researching and planning potential career aspirations and careers for adolescents is self-study. The aim of the study is to develop a Self-Study Model to Promote Career Development for Adolescents and to carry out its expert evaluation. The model was developed based on the studies of scientific literature and authors' work experience. An expert evaluation of the Model was carried out with the participation of 5 experts in the field of career counselling, pedagogy and psychology. In general, expert assessments of the overall Model rating (115 points) are close to the maximum possible rating (125 points). Using the self-exploration model, adolescents acting independently and self-efficiently, performing the tests and tasks included in the model, applying self-directed career development management, can meet their career development needs individually, make informed and self-appropriate choices for further studies or career path, that match their unique strengths and interests. The model can be useful for adolescents and teachers-career counsellors.

Keywords: adolescents, career counselling, career development, self-study approach.

Introduction

Career is important for a people throughout their life, because it is an important part of personal life, and that requires continuous improvement. Career planning begins in childhood and continues throughout life. Parents play an important role in creating the foundations of their child's career planning and trying to realize their hopes and visions for their child's future. However, during life, it becomes more and more important that the children's own choices and actions correspond to their expectations and wishes regarding the choice of a future profession.

A person's value system is the basis for choosing an occupation or profession. If a person's values are clearly defined, it can help to make decisions and develop their professional identity. It also reduces indecisiveness about the future (Jigau, 2007).

This study addresses the problem of the lack of career guidance, related to the fact that there are not enough career counsellors in all schools. Therefore, it is thought how the school could introduce the self-study approach in career development support for elementary school students, and to explore the benefits of using the self-study approach in this context. As adolescents from nature have been given a desire to learn and be active, it would be desirable for the school to actively promote adolescents' natural self-cognitive desire by organizing various events, for example, as part of career education classes, a career counsellor can offer a variety of self-cognitive tests, invite representatives of professions to meet with students so that adolescents can question them, arrange shadow days and excursions to companies and institutions.

The study aims to develop a *Self-Study Model to Promote Career Development for Adolescents* and to carry out its expert evaluation.

Methodology

The study has been developed at the Latvia University of Life Sciences and Technologies at the Institute of Education and Home Economics within the framework of the Master's study program *Career Counsellor*. The model was developed based on the basis of scientific literature studies and authors' work experience.

Research question: whether and how the self-study model developed by authors to promote career development for adolescents, which is intended for students of grades 7-8 of elementary school, meets the stated goal.

Research tasks:

- analysing the scientific literature on the approach of self-study in career education;
- development of the model;
- an expert assessment of the model.

Participants: five experts with experience in fields related to career counselling, pedagogy or psychology were interviewed to assess the self-study model.

Materials or Measures: the model has been developed and expertly evaluated in 2023. The statistical calculations used the computer program SPSS, Friedman Test (Friedman Test..., 2019).

Procedure: correspondence in the Internet and face-to-face meetings were used for communication. The self-study model and its description were electronically sent to the experts. The questionnaires were completed without communication between the experts.

Results and Discussion**Literature review on the self-study approach in career education**

Access to career support services and education is an important part of modern life. At a time of socio-economic change, when job prospects may be uncertain and the risk of social exclusion may increase, career development support is particularly important. It is necessary to realize that everyone is responsible for their own education and career direction. Flexible career development support can improve the quality of the education system, reduce the number of early school leavers, motivate young people to engage in science and technology development, promote the choice of professions in demand on the labour market and the acquisition of appropriate skills, as well as facilitate the transition from education to the labour market (Karjeras izglītības īstenošanas..., 2015; Bandura 1982).

Adolescence is a key transition period characterized by significant physical, psychological and social changes that encourage increased self-study and self-assessment (Jankowski et al., 2015; Bandura, 1988).

Self-study is a process in which an individual actively tries to understand themselves and their values, motivations, personality, interests, skills, and wishful thinking. It is recommended that this self-study process be used in career development to help determine what type of job or career corresponds to values, interests, and skills of teenagers. *Self-help*, or self-care, is a conscious activity, involvement that contributes to maintaining one's health and well-being in personal and professional life. On the other hand, self-management is an action that promotes monitoring and management of one's own activities, including learning, being able to realize one's desires, needs, manage one's thoughts, emotions and behaviour, set realistic goals and make responsible decisions (Mārtinsons et al., 2021).

Significant research into career education related processes has been conducted by many researchers (Cohen-Scali et al., 2018; Greenhaus et al., 2018; Brown et al., 2016; Savickas, 2015; Patton et al., 2014; Brown et al., 2013; Sharf, 2013b; Knoff, 2003), building a meaningful understanding of self-study self-help, self-regulation, and career significance.

It is during adolescence that the foundations are laid for finding one's place in the adult world. An important aspect to consider before the age of 14 is the hobbies and activities that the adolescents are most interested in. Becoming an adult is a process full of emotional and social suffering, which should be made as interesting and exciting as possible in order to accept changes and raise self-confidence, and this would contribute to the transformation of a teenager into a stable personality (Geida, 2019).

The process of self-study has the potential to promote the kind of self-confidence and self-reflection that are invaluable in career development. For example, writing your own experience stories, developing self-reflection skills, a values clarification activity, knowing your willingness to work independently or better in a team, helps teenagers build a connection between their values and work choices (Mazur et al., 2012; Swanson et al., 2015).

Career support measures in schools and career counsellors' experience in raising awareness of children's and adolescents' careers and career education programs have been written by various scientists (Lindo et al., 2022; Hutchison et al., 2016; Knight, 2015; Gysbers, 2013; Sharf, 2013a; Turner et al., 2013; Wilkerson et al., 2013; Akos et al., 2011; Clemens et al., 2010; Lerner et al., 2009), who have experience in designing adolescent careers.

Discovering yourself means getting to know your personality. It involves thinking about one's likes and dislikes and what one wants to achieve in life. When you discover more about yourself, you can also discover your core principles and life potential. The self-study process can be divided into four parts (Eads et al., 2022): confidence, awareness of interests, hopes and dreams, discovering a career that suits one's personality and goals, as it can help one feel satisfied at work.

There are many psychological and pseudo-psychological tests and questionnaires freely available on the Internet that anyone can complete for free or for a fee: intelligence tests, personality measurements, and occupational interest tests. In general, such tests can be considered a useful part of psychological self-help, but there are concerns about the misuse of online tests for criminal purposes (Barak, 2011). Therefore, it is important to trust school educators and career counsellors, who recommend appropriate and useful resources to use.

The main benefits of the self-study for career development are as follows (Eads et al., 2022):

- one's strengths and weaknesses are clarified;
- excitement and interest are revealed;
- gained greater self-confidence about one's life;
- motivators for career success are identified;
- a basis has been found to implement one's newly realized values in their life;
- gained the opportunity to make the best choices to achieve their goals and achievements;
- the possibility of discovering potential careers that were not previously thought of;
- clarity is found about the career that corresponds to one's own career goals;
- have the courage to decide where you want to continue your education or go to work.

When choosing a profession, a person actually chooses a way of self-realization (Super et al., 2001).

S. Fukuyama (1989) claims that the ability to choose a profession is linked to the ability to choose it rationally, considering the key conditions, such as self-esteem, knowledge of the profession and professional practice.

The purpose of the self-study approach to career development is to understand yourself and your life better, and thus create positive changes and achieve personal and professional goals. The research conducted by the aforementioned scientists and the personal work experience and research of the authors (Karpušenko, Dišlere, 2023; Karpušenko, Baltušīte, 2022; Racene, Dišlere, 2019) created the theoretical basis for the development of the *Self-Study Model for Promoting Career Development for Adolescents*.

Self-Study Model to Promote Career Development for Adolescents

Based on the findings obtained in the theoretical analysis of the study about the needs of the adolescent's career development and self-study skills, which depend on the adolescents' conscious and purposeful progress towards making a career decision, A Self-Study Model for Promoting Career Development for Adolescents was established (Figure 1).

The model aims to promote career development for adolescents through a self-study approach to realise their potential, following their abilities and talents, the pupil would move towards autonomous career decision-making.

Tasks of implementation of the model:

- to provide support to the adolescents so that they can learn about their self through self-study, to find out their abilities, talents, strengths and weaknesses by completing the tasks included in the model, thereby improving their self;
- to show what should be done to choose further education, explore professions and choose an occupation that reveals the essence of a person, and the adolescents would feel in harmony with themselves;
- to promote the adolescents' self-criticism and self-analysis capacity in order to improve self-efficacy;
- to encourage seeking help from a career counsellor or teachers on career topics, if the need arises.

Target audience of the model: 8th grade students. The model is intended for elementary school students, the teenage years, when adolescents are rapidly approaching the moment of making their first important decisions - the choice of an educational institution, which is currently complicated by the choice of secondary school learning models. Often, a pupil does not even think about further education until graduation from primary school, not to mention a purposeful analysis of a career decision and a conscious move towards it.

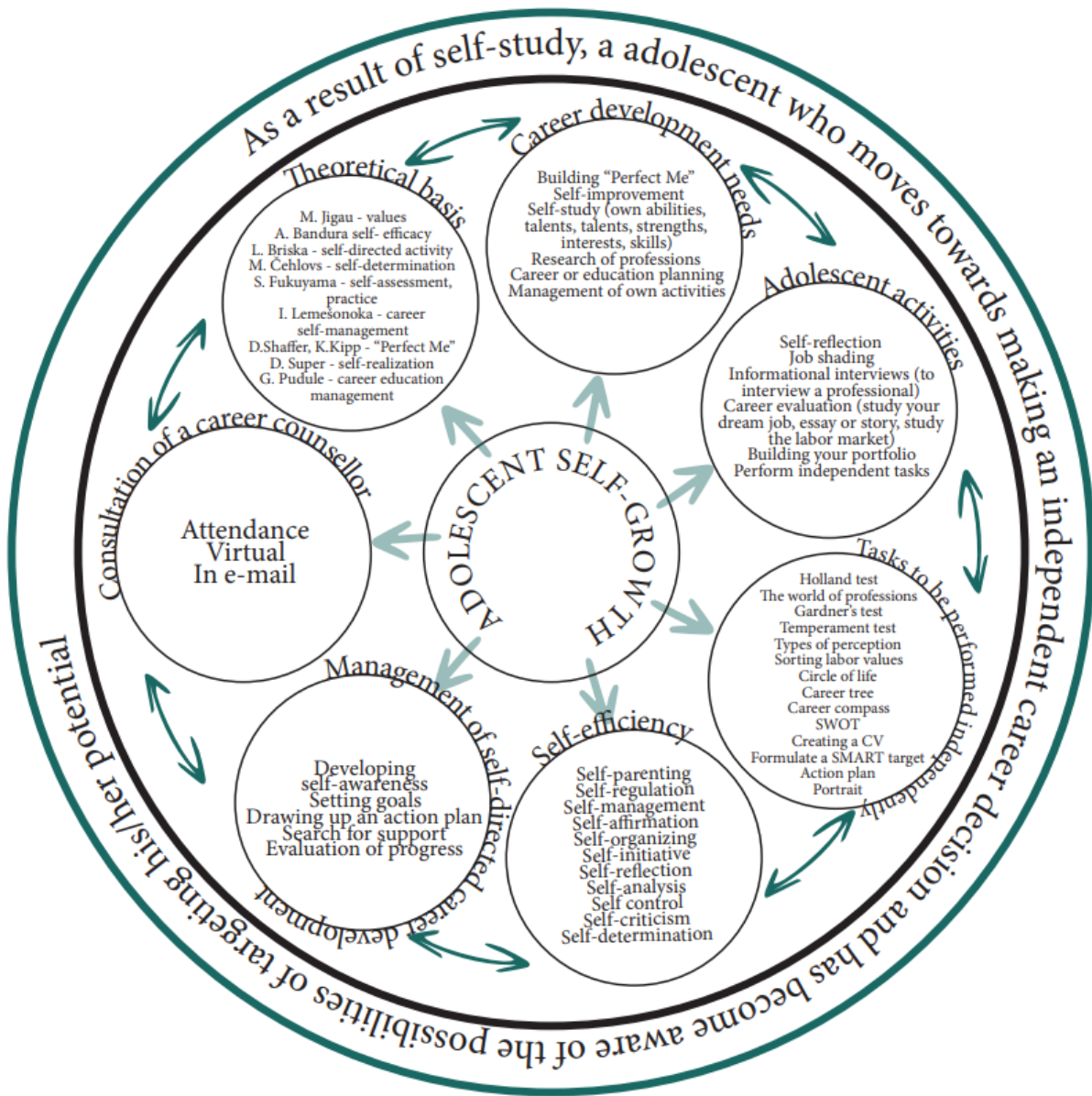


Figure 1. Self-Study Model for Promoting Career Development for Adolescents (authors' construction)

Methods used: independent work. An adolescent can do self-study on his own by acting electronically, fulfilling recommended tasks, but the pupil needs a source of motivation, an assistant who doesn't need to be approached and feel uncomfortable about ignorance.

Location of implementation of the model: each pupil performs the tasks individually, independently, at home, in a cafe, in library or in a freely chosen place where the Internet is available.

Content of the model: the core elements of the developed model (Figure 1), crystallized in theory analysis and authors' work experience, are arranged in circles representing the various components of the adolescent's self-growth, which, when viewed in conjunction, are an important prerequisite for the pupil's future career development:

- theoretical basis – findings of scientists, guidelines developed by the state and personal experience of the authors, which theoretically justify the idea of the model (Vadlīnijas karjeras atbalsta..., 2022; Lemešonoka, 2017; Briska et al, 2018; Ieteikumi Klases stundu..., 2016; Shaffer et al., 2013; Pudule, 2013; Čehlovs, 2008; Jigau, 2007);
- career development needs (Karpušenko, Dišlere, 2023, 116)– obtained as a result of the analysis of the theory and research, by means of which it is understood the conditions and factors that are necessary and contribute to the progress of the career development of the pupil;
- adolescent's activities – basic tasks that facilitate self-study by a teenager and progress towards conscious career decision making;
- tasks to be carried out independently - tests, methods and tasks promoting self-analysis for solving the career development needs of adolescents through self-study, which, when carried out independently, the teenagers will be aware of their opportunities and will be able to purposefully exploit their potential;
- self-efficiency – a person's belief in his abilities to cope with difficulties and succeed in a certain field, skills developed by the authors as a result of theory and research analysis, summarized in a questionnaire (Karpušenko, Dišlere, 2023, 116), which the teenagers need to know and use for self-discovery and career development;
- management of self-directed career development – management skills to be developed by the adolescents;
- consultation of a career counsellor – as a result of self-study, a teenager may need help, that can be obtained from a career counsellor on career topics that have raised questions and receive support.

Expert evaluation

To assess the importance and usefulness of the *Self-Study Model for the Promoting Career Development for Adolescents* (Table 1) for independent progress of adolescents in career decision making, it was referred to experts for evaluation. It was essential for the authors to find out whether the model is useful for elementary school students, and whether it encouraged them to move independently towards making a career decision.

Table 1

Expert Evaluation of Self-Study Model to Promote Career Development for Adolescents (n=5)

Experts						Indicators of descriptive statistics					Σ
Criteria	E1	E2	E3	E4	E5	Me	Mo	Xmin	Xmax	A	
K1	4	5	4	5	5	5	5	4	5	1	23
K2	4	4	5	4	5	4	4	4	5	1	22
K3	5	4	4	4	4	4	4	4	5	1	21
K4	4	5	5	5	5	5	5	4	5	1	24
K5	5	5	5	5	5	5	5	5	5	0	25
Me	4	5	5	5	5	Me – median, the average variable value of an ordered empirical distribution					
Mo	4	5	5	5	5	Mo – mode, the value of the most frequent variable in the distribution					
Xmin	4	4	4	4	4	Xmin – the smallest value of the variable					
Xmax	5	5	5	5	5	Xmax – the largest value of the variable					
A	1	1	1	1	1	A – amplitude, the difference between the maximum and minimum values of the variable					
Σ	22	23	23	23	24	Σ – amount					

Experts were asked to assess the model on the basis of five criteria (K):

K1: The model meets the goal - as a result of self-study, adolescents have become aware of the possibilities of targeted use of their potential, who is moving towards making an independent career decision.

K2: The independent tasks and activities included in the model are suitable for adolescence.

K3: The independently performed tasks offered in the model improve the self-study skills of teenagers and foster awareness of their potential.

K4: The own-initiative tasks and activities used in the model contribute to the achievement of the planned goal.

K5: The model is generally good enough to guide a adolescent towards making an independent career decision.

Experts (Table 1) are marked with the letters E1-E5, while the aforementioned criteria, according to which the support model was evaluated, are marked with the letter K and the order number of the criterion. Numbers from 1 to 5 indicate the degree of expert assessment for each statement, from 5 - completely agree to 1 - completely disagree.

The collected data (Table 1) shows that the most common value (Mo) is 5 - a rating that confirms that the developed model fully meets the criteria. An assessment of the findings leads to the conclusion that there is consensus among experts.

In order to find out whether the differences between experts' assessments of the self-study model for promoting career development for teenagers are statistically significant, the survey findings were processed using the Friedman test. The following statistical hypotheses were put forward:

H0: there are no statistically significant differences between expert assessments;

H1: there are statistically significant differences between expert assessments.

Friedman's test was used for data processing (Table 2).

Table 2

Distribution of expert rating ranks (Friedmann test, n=5)

Experts	Mean Rank
E1	2.50
E2	3.00
E3	3.00
E4	3.00
E5	3.50

Since the $p\text{-value} = 0.736 > 0.05$, the null hypothesis cannot be rejected with a probability of 95%, this means that there are no significant differences in the experts' assessments. The maximum number of points that could be expected in the expert judgement is 125 points. A total of 115 points have been obtained in the expert evaluation. Based on the experts' assessment, which reaches 92% of the maximum possible number of points, it can be concluded that the *Self-Study Model for Promoting Career Development for Adolescents* is recommended in school career education activities.

Conclusions

A self-study approach to young people's career development aims to help adolescents understand their interests, skills, values and personality traits and to make thoughtful decisions about their future education and career paths that fit their unique strengths and interests, creating more satisfaction and fostering success. This approach encourages young people to engage in activities such as self-reflection, job shadowing, informational interviews and career assessments to gain a deeper understanding of themselves and the types of career that suit them.

When implementing the *Self-Study Model*, adolescents can choose and perform the recommended tests and tasks independently in career-related issues and only approach a career counsellor if necessary. Because teacher-career counsellors aren't enough for all schools, the *Self-Study Model* is a recommended solution.

All enrolled experts consider the *Self-Study Model for Promoting Career Development for Adolescents* to be good enough and appropriate for the objective it pursues, so that the adolescent is directed towards making a career decision independently, there are no significant difference in the opinions of experts (p - value is 0.736).

Bibliography

1. Akos, P., Niles, S. G., Miller, E. M., & Erford, B. (2011). Developmental classroom guidance. In B. T. Erford (Red.), *Transforming the school counseling profession* (pp. 202-221). Pearson.
2. Barak, A. (2011). Internet-based psychological testing and assessment. In R. Kraus, G. Sticker, C. Speyer (Eds.). *A Handbook for mental health professionals* (2nd ed., pp.225-255). Elsevier Inc. <https://doi.org/10.1016/B978-0-12-378596-1.00012-5>
3. Bandura, A. (1982). Self efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147.
4. Bandura, A. (1988). *Self-regulatoin of motivation and action through goal systems*. Erlbaum.
5. Briska, L., & Dislere, V. (2018). Guidance model for promoting self-directed career decision-making by secondary school students. In V. Dislere (Ed.). Proceedings of the International Scientific Conference *Rural Environment. Education. Personality (REEP)*, 11, 344-353. LLU TF. <https://doi.org/10.22616/REEP.2018.042>
6. Brown, S. D., & Lent, R. W. (2013). *Career development and counseling putting theory and research*. John Wiley&Sons.
7. Brown, G. T., Peterson, E. R., & Yao, E. S. (2016). Student conceptions of feedback: Impact on self-regulation, self-efficacy, and academic achievement. *British Journal of Educational Psychology*, 86(4), 606-629. <https://doi.org/10.1111/bjep.12126>
8. Clemens, E. V., Carey, J. C., & Harrington, K. M. (2010). The school counseling program implementation survey: Initial instrument development and exploratory factor analysis. *Professional school counseling*, 14(2), 125-134. Sage Publications, Inc. <http://www.jstor.org/stable/42732941>
9. Cohen-Scali, V., Rossier, J., & Nota, L. (Eds.). (2018). *New perspectives on career counselling and guidance in Europe: Building careers in changing and diverse societies*. Springer International Publishing AG. <https://doi.org/10.1007/978-3-319-61476-2>
10. Čehlovs, M. (2008). *Vecāko klašu skolēnu personības pašnoteikšanās attīstības humanitārie pamati* [The humanitarian foundations of the development of personality self-determination of senior schoolchildren]. Promocijas darbs. LU Pedagoģijas un psiholoģijas fakultāte. https://dspace.lu.lv/dspace/bitstream/handle/7/4537/10347-Mihails_Cehlovs_2008.pdf?sequence=1 (in Latvian)
11. Eads, A., & Alpeche, J. (2022). *9 Tips for self-discovery* (plus definition and benefits). Career Guide/Indeed. <https://www.indeed.com/career-advice/career-development/self-discovery>
12. Friedman Test in SPSS Statistics. (2019). <https://statistics.laerd.com/spss-tutorials/friedman-test-using-spss-statistics.php>
13. Fukuyama S. (1989). *Teoreticheskiye osnovi professionalnoi orientacii* [Theoretical foundations of professional guidance]. MGU. (in Russian)
14. Geida, M. (2019). A game for self-discovery in a career-choice discourse for aaadolescents. In L. Daniela (Ed.), Scientific Conference of University of Latvia *Human Technologies and Quality of Education*. 77, 140-150. LU Akadēmiskais apgāds. <https://doi.org/10.22364/htqe.2019>
15. Gysbers, N. C. (2013). Career-ready students: A goal of comprehensive school counseling programs. *The Career Development Quarterly*, 61(3), 283-288. <https://doi.org/10.1002/j.2161-0045.2013.00057.x>
16. Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2018). *Career management for life* (5th ed.). Routledge. <https://doi.org/10.4324/9781315205991>
17. Hutchison, B., Niles, S. G., & Trusty, J. (2016). Career development interventions in the schools. In B. T. Erford (Ed.), *Professional school counseling* (3rd ed., pp. 217-320). PRO-ED, Inc.
18. Ieteikumi Klases stundu programmas īstenošanai. Metodiskie ieteikumi. [Recommendations for the implementation of the classroom program. Methodological recommendations]. (2016). Valsts izglītības satura centrs. https://registri.visc.gov.lv/audzinasana/dokumenti/metmat/ieteikumi_klases_st_prog_ist.pdf (in Latvian)

19. Jankowski, K. F., & Pfeifer, J. H. (2015). Puberty, peers, and perspective taking: Examining adolescent self-concept development through the lens of social cognitive neuroscience. *Neuroscience and Biobehavioral Psychology*, 3, 45-51. <https://doi.org/10.1016/B978-0-12-397025-1.00152-4>
20. Jigau, M. (Red.). (2007). *Career counselling: Compendium of methods and techniques*. AFIR. https://eunec.eu/sites/www.eunec.eu/files/members/attachments/career_counselling_compendium_of_methods_and_techniques.pdf
21. *Karjeras izglītības īstenošanas plāns valsts un pašvaldību vispārējās un profesionālās izglītības iestādēs 2015.-2020.gadam* [Career education implementation plan in state and municipal general and professional education institutions for 2015-2020]. (2015). IZM. <https://likumi.lv/ta/id/278999-par-karjeras-izglitibas-istenosanas-planu-valsts-un-pasvaldibu-visparejas-un-profionalas-izglitibas-iestades-2015-2020> (in Latvian)
22. Karpušenko, D., Baltušīte, R. (2022). Karjeras izglītības īstenošana pamatskolā [Implementation of career education in primary school]. *Studentu un maģistrantu zinātniskās konferences raksti*, 122–126. LBTU TF. <https://www.tf.lbtu.lv/sites/tf/files/2022-08/TF%20magistrantu%20konference%202022.pdf#page=122> (in Latvian)
23. Karpušenko, D., Dišlere, V. (2023). Pamatskolēnu karjeras attīstības vajadzības un pašizpētes prasmes [Career Development Needs and Self-Study Skills of Elementary School Students]. *Studentu un maģistrantu zinātniskās konferences raksti*, 112–117. LBTU TF. <https://www.tf.lbtu.lv/sites/tf/files/2023-05/TF%20magistrantu%20konference%202023.pdf#page=112> (in Latvian)
24. Knight, J. L. (2015). Preparing elementary school counselors to promote career development: Recommendations for school counselor education programs. *Journal of Career Development*, 42(2), 75-85. <https://doi.org/10.1177/0894845314533745>
25. Knoff, H. M. (Ed.). (2003). *The assessment of child and adolescent personality*. The Guilford Press.
26. Lemešonoka, I. (2017). *Skolēna karjeras vadības prasmju veidošanās vispārīgglītojošās skolas pedagoģiskajā procesā* [Formation of student' vareer management skills in the pedagogical process of the general education school]. Promocijas darbs. RPIVA. https://dspace.lu.lv/dspace/bitstream/handle/7/45285/prom_darbs_lemesonoka.pdf (in Latvian)
27. Lerner, R. M., & Steinberg, L. (2009). The scientific study of adolescent development: Historical and contemporary perspectives. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology: Individual bases of adolescent development* (3rd ed., pp. 3–14). John Wiley & Sons, Inc. <https://doi.org/10.1002/9780470479193.adlpsy001002>
28. Lindo, N. A., Li, D., Hastings, T., Ceballos, P., Werts, R., Molina, C., Older M., Laird, A. (2022). Child and adolescent career construction: Lived experiences of an expressive arts group. *Career Development Quarterly*, 70(4), 300-313. <https://doi.org/10.1002/cdq.12307>
29. Mazur, A., Garland, R., & Matthevs, R. (2012). *Tools for career self-exploration*. NCTN at World Education, Inc. <https://www.collegetransition.org/student-supporters/publications/aspirations-toolkit/tools-career-self-exploration/>
30. Mārtinsons, K., Šmits, D., Mihailovs, I., J., Mārtinsons, A., Ruža, A., Vanadziņš, I., Jansone-Ratinika, N., Kukle, G., Lietaviete, I., Brice, M., Majore-Dūšele, I., Paiča, I., Silkāne, V., Zemvaldis, E., Akmene, E., Paupere, I., Paičs, I. (2021). *Pašpalīdzības un pašvadības iespēju arsenāls krīzes un transformāciju laikā: metodes ikvienam* [An arsenal of self-help and self-management options in times of crisis and transformation: methods for everyone]. RSU. <https://dspace.rsu.lv/jspui/handle/123456789/3885> (in Latvian)
31. Patton, W., & McMahon, M. (2014). *Career development and systems theory: Connecting theory and practice* (3rd ed.). Sense Publishers. <https://doi.org/10.1007/978-94-6209-635-6>
32. Pudule, G. (2013). *Karjeras izglītības vadības pilnveide vispārīgglītojošās skolās Latvijā* [Improvement of career education management in general education schools in Latvia]. Promocijas darbs. LU. https://dspace.lu.lv/dspace/bitstream/handle/7/5221/39734-promocijas_darbs_Guna_Pudule.pdf (in Latvian)
33. Racene, A., Dislere, V. (2019). Choice of a values identification method in career counselling. Proceedings of the International Scientific Conference *Rural Environment. Education. Personality (REEP)*, 12, 289-296. LLU TF. <https://doi.org/10.22616/REEP.2019.038>
34. Savickas, M. L. (2015). Career counseling paradigms: Guiding, developing, and designing. In P.J. Hartung, M.L. Savickas, & W.B. Walsh (Eds.) *APA handbook of career intervention*,

- Volume 1. Foundations, (pp. 129-143). American Psychological Association.
<https://doi.org/10.1037/14438-008>
35. Shaffer, D. R., Kipp, K. (2013). *Developmental psychology: Childhood and adolescence* (8th ed.). WADSWORTH CENGAGE Learning.
http://elibrary.bsu.edu.az/files/books_163/N_44.pdf
36. Sharf, R. S. (2013a). Advances in theories of career development. In W. B. Walsh, M. L. Savickas, & P. J. Hartung (Eds.), *Handbook of vocational psychology: Theory, research, and practice* (4th ed., pp. 3–32). Routledge/Taylor & Francis Group.
37. Sharf, R.S. (2013b). Social cognitive career theory. *Applying Career Development Theory to Counseling*, 353.-376.
38. Super, C., Super, D. (2001). *Opportunities in psychology careers*. VGM Career Books.
39. Swanson, J. L., & Found, N. A. (2015). *Career theory and practice. Learning through case studies* (3rd ed.). SAGE Publications.
40. Turner, S. L., & Lapan, R. T. (2013). Promotion of career awareness, development, and school success in children and adolescents. In S. D. Brown, & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work*, (2nd ed., 539-564). John Wiley & Sons, Inc.
https://www.hzu.edu.in/uploads/2020/9/Career%20Development%20and%20Counseling_%20Putting%20Theory%20and%20Research%20to%20Work.pdf
41. *Vadlīnijas karjeras atbalsta īstenošanai* [Guidelines for the implementation of career support]. (2022). Valsts izglītības attīstības aģentūra.
<https://euroguidance.viaa.gov.lv/mod/book/view.php?id=64&chapterid=1357> (in Latvian)
42. Wilkerson, K., Pérusse, R., & Hughes, A. (2013). Comprehensive school counseling programs and student achievement outcomes: A comparative analysis of RAMP versus non-RAMP schools. *Professional School Counseling*, 16(3), 172-184

Education for a Changing World

Students' Spiritual Well-Being in the Context of Digitalization

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Abstract: *The aim of the research* is to explore the dimensions of students' spirituality in post-pandemic in the digital learning environment. The authors analyse a spiritual well-being of students during the post-pandemic by suggesting coping strategies and sources of resilience. *The topicality of the spiritual dimension* in students' life during and after the pandemic is one of the discussed issues in the contemporary research. Every educational institution is trying to do their best in addressing such challenges of increased workloads that threatens spiritual and emotional well-being of teachers and students. The research question relates to the study of spiritual well-being in the context of digitalization. Which factors foster students' spiritual well-being? *The methodology applied* in this study was Fisher's scale of life orientations called SHALOM (SWBQ) that reflects five dimensions of person's life: personal, communal, environmental and transcendental and global domains. The participants were two hundred university students from all higher institutions of Latvia. For the purpose of this study the authors have applied a factor analyses, by identifying five factor structure of students' spiritual well-being, such as personal relationships with God / Divine (transcendental dimension); relationship towards oneself (personal dimension); relationships with others (communal dimension), relationships with nature (environmental dimension), and the dimension of personal integrity. The authors have outlined the potential solutions that help students to maintain their emotional and spiritual well-being. *It was concluded* that while being emersed in the digital environment, spiritual well-being plays important role in overcoming students' anxiety and stress and helps them to find peace and resilience in nature, in the community with their family members and in search for the transcendental. The authors of this article evaluate critically how to maintain spiritual well-being by accepting new conditions and rules of a remote learning by overcoming stress in maintaining their spiritual well-being.

Keywords: information and communication technologies, spiritual well-being, digital learning environment, school learners

Introduction

During the global pandemic, digital communication platforms and tools became an integral part of students' communication. Online communication have effectively dissolved the borders and distances. Media and internet developed fast and replaced physical relationships to a large degree. Different types of online communication provide an opportunity to keep in touch with one's circle of friends and acquaintances. Still, communication in the online learning environment is causing stress and anxiety for many learners and cannot replace real physical relationships (UNICEF, 2020). Post-pandemic allowed people to resume full-time responsibilities at work and education. Still, online communication continue to be applied widely in everyday life and education (OECD, 2010; OECD, 2020). This article explores several aspects how to ensure students' mental and spiritual well-being during the process of digitization. The authors propose to view learners via holistic perspective by paying attention to cognitive, physical, socio-emotional and spiritual needs of learners that were neglected during the pandemic to a great extent (OECD, 2020). Human beings are not only psycho-physical and socio-cultural but also spiritual being who are striving for meaning and fulfilment in their lives (Iliško, 2021). The number the studies on spirituality have been growing intensely. In this study particular attention is paid to a spiritual well-being of learners during the process of excessive digitalization of a learning process.

Spirituality Defined

Spiritual well-being was an issue of interest for the researchers for a long time. The term 'spirituality' remains fluid and undefined term. Its definitions vary from non-religious to a deeply religious experience. The term has a strong relation with one's mental health. For a long time, spirituality has

been studied from a religious perspective but only lately spirituality has become popular among various scientists and become the topic of research in the international discourse. Spirituality is seen as the main indicator of mental health and spiritual maturity of an individual (Davis, Kerr & Robinson, 2003; Unterrainer et al. 2010; Fisher, 2010, Fisher, 2021; Dreyer & Dreyer, 2000; Moreira, et al, 2023; Schwalm et al, 2022; Aggarwal et al 2023; Zhou, et al 2024).

Spirituality is multifaceted and multidimensional term that describes one's closeness and connectedness with oneself, nature, others and a higher purpose of life. The term is also related to one's search for meaning in the surrounding world and refers to a state of transcendence. Great number of studies underline the connectedness of spirituality to a subjective well-being and requires coping strategies in difficult circumstances. Spirituality also refers to everyday religious experiences, ethical sensitivity and harmony in one's own life and in the world. Spiritual orientation is seen as the determinant factor of a healthy life.

Individual's spiritual orientation in many studies has been defined as an essential element in sustaining diverse situations in crises, anxiety and distress. The pandemic made people to pay more attention to their inner lives and search for a spiritual nourishment as well to reflect on meaning in their life thus helping them to gain deeper awareness. Spiritual well-being describes one's life as meaningful and as having a sense of purpose in comparison to a religion that refers mainly to meaningful relation with God. Spirituality can also be examined from the point of view of both, religious and existential well-being. Spiritual well-being does not refer to a certain religious tradition or praxis but can be referred to a human need for a purpose, meaning and connection to a higher purpose. During the pandemic, one has questioned more the meaning of life (Ryff & Keyes, 1995). People have paid attention to larger questions of life, and meditative practices by trying new and more sustainable approaches of living and thinking. Coping approaches with the anxiety during the pandemic or other difficulties in life can serve as powerful means by providing a sense of purpose in one's life. It provides answers to life's existential questions and serve as a means to cope with stressful events in one's life.

Measurement of a Spiritual Well-Being

A number of scientists have studied various dimensions of well-being. H.G. Koenig (2008) report about the changing discourse in regards to the study of a spirituality. Traditional definitions of spirituality refer mainly to a religious person, while contemporary studies refer to a well-being and a happiness of a secular person. The measures are related to assessing positive traits of one's character, such as optimism, forgiveness, meaning, purpose in life, harmony and a general well-being. D.O. Moberg, (2011) asserts that in the context of Christian values, spirituality is immeasurable and was excluded from the scientific research as too mystical, theological or transcendent to be a researchable subject. Still, a huge interest in spirituality indicates a centrality of spirituality in human society in its wider understanding. Since 60's, a number of scales have been designed to measure religiousness of a person that includes components of spirituality. Soon, a great number of scales were designed to measure spirituality as a part of a holistic well-being in the framework of physical or mental health.

Among all those studies, the most well-known researchers C.D. Ryff and C.L.M. Keyes (1995) has designed a model of a psychological well-being that includes such dimensions as positive relations with others, autonomy, and the environmental mastery. R.F. Paloutzian and C.W. Ellison (1982) have developed a Spiritual Well-Being Scale which measures religious and existential well-being. C.W. Ellison has designed a Spiritual Well-Being Scale that consists of two subscales that measure Existential Well-Being (EWB) and Religious Well-Being (RWB). D.O. Moberg (2011) focuses on aspects of subjective spiritual well-being while L. Dreyer, & S. Dreyer (2001) assert that subjective well-being relates not only to religiosity but also to a psycho-social component of a personality. There are a number of studies that focus on interrelatedness of psychological well-being and a spiritual well-being (Unterrainer et al., 2010). Davis with his colleagues have studied spirituality among the youth at risk (Davis, Kerr, & Robinson, 2003).

Life 'Together Alone' in a Digital World

Digitalization of a learning process is gradually breaking the boundaries between real and a virtual world of millions of students in the world. One can observe a typical reality of adolescents of being "Alone Together" (Turkle, 2011), each interacting from his or her mobile devise or PC, thus missing out a

development of key social and relationship skills. The report “Teenage Loneliness and Technology” carried out in the UK indicates that among the main reasons of loneliness among teens are not excessive use of technologies but a lack of social contacts so necessary for this group of pupils. Today we can talk about youth as ‘digital natives’ growing up with their smart phones and fearing the risk and disappointment in relations with peers and expecting more from technology. Technologies have changed patterns of relatedness among teens. A virtual life allows one to feel richer and younger by designing a personal avatar according to one’s preferences. Digital connections offer the illusion of companionship without the demands of friendship and ties. The pandemic and a digitalization of a learning process has increased students feeling of isolation in front of their devices. Most of the research show that time spent in front of devices displace time spent with their peers; some research point to the increasing quality of existing relationships in the digital environment (Davis, 2021). While mobile devices are causing disruptions, but, if used correctly, digital devices provide new opportunities for the students to assess information, to explore sensitive topics and develop their digital identity. By bringing students together in online community, technologies could be a solution to loneliness challenge. The use of technologies will increase and will continue impacting human relationships. Some learners withdraw themselves from the real world to the false virtual world where they feel safe. Digital environment allows to create multiple identities, practice a complex mix of autonomy, self-promotion and a role play.

At the same time, students lose their ability to socialize and communicate with friends in a real-life situation. They live in the world of fantasy and communicate with their cyber friends who are the prisoners of virtual space themselves where they can play the role of a projected perfect self, still missing real life communication and human contacts.

Spiritual Well-Being in Post Pandemic

Spirituality is multifaceted and multidimensional term that describes one’s closeness and connectedness with oneself, nature, others and a higher purpose of life. The term is also related to one’s search for meaning in the surrounding world and refers to a state of transcendence. There are number of studies that underline the connectedness of spirituality to a subjective well-being and coping skills in difficult circumstances. Several studies refer to three aspects of spirituality, such as everyday religious experiences, ethical sensitivity and harmony in one’s own life and the world (Božek, Nowak, & Blukacz, 2021; Heszen-Niejodek, & Gruszyńska, 2004). Spiritual orientation is seen as the determinant factor of a healthy lifestyle and good health.

Individual’s spiritual orientation in many studies has been defined as an essential element in sustaining diverse situations in crises, anxiety and distress. The pandemic has caused people to pay more attention to their inner lives and search for a spiritual nourishment. The pandemic has made many people to stop and to reflect on meaning in their life by gaining deeper awareness. Spirituality can also be examined from the point of view of both, religious and existential well-being. Spiritual well-being does not refer to a certain religious tradition or praxis but can be referred to a human need for a purpose, meaning and connection to a higher purpose. During the pandemic every individual question more often the meaning of life. Spiritual coping approaches with the anxiety during the pandemic or other difficulties in life include powerful means by providing a sense of purpose in one’s life. It provides answers to life’s existential questions and serves as a means to cope with stressful events in one’s life.

As a result of pandemic, youth experienced a lack of social interaction that caused a feeling of isolation. Online communication does not replace a real-life interaction, and does not support a possibility to express oneself and reduces self-efficiency. The lack of routine is causing emotional and physical fatigue and hopelessness among young people about the future that influenced their emotional well-being to a large degree. Among typical reactions of young people are a fatigue, loss of energy and poor concentration. As it is stated in the OECD (2020, 2022), the pandemic influenced most of all vulnerable groups of young people and their access to education. Despite the flexibility that schools adapted in organizing the educational process during closure, not all young people received quality education and did not have an access to education and technologies. A digital divide in connectivity and access to devices is widening the gap even more. Students from the less advantaged families receive less emotional support from their families and the resources for the survival. A lack of physical learning opportunities is increasing the risk of disengagement. According to the OECD (2021; 2022) the

pandemic influenced the situation of youth with special needs most of all since they needed more of emotional and social support from adults than others (UNICEF, 2020).

The extensive study carried out in Latvia with the participation of 1.667 young people in the age group from 18 -25 on their well-being indicates that 35% of the participants felt lonely on a regular bases, 75% of them have received emotional support from their families and 70% from their friends. 53% of them reported that this took more time for them to complete the homework, 35% of participants reported that their emotional well-being has declined significantly during the pandemic. To improve their emotional and spiritual well-being, only 20% of them went for a walk on a regularly. Another study carried out by the UNICEF indicates that 27% of students, feel anxiety, and 15% feel depression, but one out of two felt less motivated to do activities they really enjoy. 43% of young women feel pessimistic about the future (UNICEF, 2020). Only 1/3 of participants asked for the help from their closes circle of friends.

Factors of Resilience and Coping Mechanisms for Students in the Digital World

Digital connectivity may lead to a number of risks related to social, physical, spiritual and emotional well-being of students that is not recognized by the young people themselves. Educators need to foster students' 'digital resilience' – their emotional and digital literacy to deal with risk that they might be exposed. Teachers need to make students aware of social, ethical and emotional aspects that they might encounter in the digital environment. By building online community of support, educators can foster support, raise students' self-esteem by impacting their resilience both in an online and offline environment. Educators need to pay close attention to any signs of mental disturbances and crises in digital environment so that they can provide hints for building digital resilience. S. Livingstone and T. Palmer (2012) identified strategies can help students to survive in the digital world, such as understanding learners in the broader context of their lives by a holistic view in addressing issue of vulnerabilities of learners who have limited access to technologies, lack of space of quality learning at home.

Among the vulnerabilities to be mentioned are high need of affection and attention, difficult relations with their parents at home environment, and parent lacking skills to help their children in online environment. Among the factor of building digital resilience are networks of peers, supportive parents, accessible sources with appropriate information. This also requires multiple stakeholder cooperation and networking, particularly, responding to the needs of vulnerable teens and their social, economic, emotional and spiritual needs. Betton & Woolard (2019) suggest that asset-oriented approach by identifying students' strengths and enhancing them. The authors suggest not to fall in a moral panic but rather to use creativity and imaginative ways how to manage their mental and spiritual well-being. This out be useful also to see a positive side of digitalization. Since digitalization offers numerous opportunities to enrich knowledge, allows networking, creates new opportunities of growth.

Methodology

For the purpose of this study, Fisher's scale was applied to measure various dimensions of students' spiritual well-being as reflected in relations to others, nature, oneself and the Ultimate being and was applied by the authors during the pandemic. The research question was to evaluate students' spiritual well being in post pandemic in relation to five dimensions of person's life: personal, communal, environmental and transcendental and global domain. For this purpose that authors have carried a factor analyses and have identified five factor structure of a spiritual well-being.

Participants: Invitation to participate in a web-based study was send to 400 students from all regions of Latvia. Completed resurvey responses were received from two hundred respondents.

Measures and procedure: Methodology employed for the purpose of this study was Fisher's scale of life orientations called SHALOM (SWBQ) that reflects five dimensions of person's life: personal, communal, environmental and transcendental and global domains. According to Fisher, personal aspect of spiritual well-being includes sense of identity, self-awareness, inner peace and meaning in life, while communal/relationship dimension includes forgiveness towards others, respect towards each other, and kindness. Environmental aspect includes connectedness with nature, a sense of magic in the environment that one can experience, while the transcendental aspect includes oneness with God, peace with God,

and a prayerful life. The number of participants who took part in this study were two hundred students. The tool provides a balanced selection of items across four domains of a questionnaire.

The validity of the tool was ensured by pretesting the instrument after it had been adapted from the context of Latvia. Fisher, the author of the scale provided the guidance in the process of back translation on certain questions with the purpose of to ensure the correctness of meaning and the applicability to the context of Latvia. The data was processed by Statistical Package for the Social Sciences (SPSS), Version 20 with the aim to conduct the descriptive data analysis. The demographic characteristics of the research participants include two hundred students from all areas of Latvia who took part in an online survey with the consent agreement to participate in this study.

Results and Discussion

The study has revealed that the participants relate spirituality with peace of mind, harmony, good relations with others, ability to express one's emotions and feelings. 60% of all the inquired participants pointed out that religion also plays a significant place in their everyday life. Among the main factors that have influenced their spirituality was family, while 21% of respondents reported that their spirituality was influenced by a special event in their life. 90% of all the respondents claimed that they do not belong to any religious denomination and defined themselves as non-believers. Overall situation in Latvia can be described as "believing without belonging." One can evidence a strong tendency of secularization among the youth. More often their identity can be described as 'fluid' or non-religious. For the nonreligious youth spirituality plays important role in their lives. There is a move to a new kind of spirituality that differs from a traditional spirituality. Still, as the main source of influence on their spiritual well-being, they name their families (60%), followed by some significant person in their life (21%) and event (8%). Among the most important values they see forgiving and love for other people. Majority of young people see search for their spiritual nourishment in nature.

Table 1

Indicators, factors and factorial loads of a spiritual well-being

Descriptors (How do you evaluate):	Factors				
	F1	F2	F3	F4	F5
oneness with God	0.906				
worship of the Creator	0.871				
personal relationship with the Divine/God	0.827				
peace with God	0.756				
prayer life	0.626				0.494
self-awareness		0.719			
a sense of identity		0.647			
inner peace		0.572		0.558	
trust between individuals			0.714		
respect for others		0.417	0.682		
kindness towards other people		0.423	0.608		
a love of other people			0.572		
harmony with the environment				0.679	
awe at a breath-taking view				0.615	
forgiveness toward others			0.484	0.611	
joy in life				0.574	

Descriptors (How do you evaluate):	Factors				
	F1	F2	F3	F4	F5
connection with nature					0.798
meaning in life		0.445			0.625
oneness with nature				0.507	0.563
a sense of 'magic' in the environment		0.465			0.550

For the purpose of the study the authors have carried out the survey of two hundred respondents in the age group from 15 to 18.62% of the respondents were women. The authors have applied an exploratory factor analysis by identifying factors of a spiritual well-being. The authors have used the Extraction Method: Principal Component Analysis and the Rotation Method: Varimax with Kaiser Normalization and have identified the Kaiser-Meyer-Olkin Measure of Sampling Adequacy that was equal to = 0.832, Sig. of Bartlett's Test of Sphericity < 0.001, which indicates to the feasibility to use a factor analysis.

Factor analysis allowed to identify a five-factor structure of a spiritual well-being:

- F1 - personal relationships with God / Divine (Transcendental dimension);
- F2 - relationship towards oneself (Personal dimension);
- F3 - relationships with others (Communal dimension);
- F4 - relationships with nature (Environmental dimension);
- F5 - personal integrity.

Table 2 reflects the percentage of the total variance as described by the selected factors. The total percentage of variance reflected by the selected factors is 67.89%. At the same time, the largest percentage (13.34%) of variance is reflected by the factor F1 - *Personal relationships with God/ Divine* (Transcendental dimension). The quantitative values of the factors are calculated as the average values of the corresponding indicators (indicators, the factor loadings of which the factor is not less than 0.4).

Table 2

Total variance of factors

Factors	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumu-lative %	Total	% of Variance	Cumula-tive %
F1	7.454	37.271	37.271	3.668	18.339	18.339
F2	2.320	11.601	48.872	2.513	12.565	30.904
F3	1.584	7.922	56.794	2.504	12.519	43.423
F4	1.188	5.942	62.736	2.470	12.350	55.774
F5	1.032	5.158	67.893	2.424	12.120	67.893

Tables 3 provides descriptive statistics for factors related to a spiritual well-being of students. According to the factors of students' subjective self-evaluation of their spiritual well-being, the most important factor is *relationships with others* (communal dimension), since this group of respondents represent students for whom the relationships with others are of the particular importance as compared with other criteria. Students are team oriented; they value team work and affirmation that they gain from others is of particular significance for them. They have a strong sense of community and they believe in a value of civic and political engagement. They consider themselves as global citizens who can make the world a better place.

Table 3

Descriptive statistics of a subjective spiritual well-being

	Range	Min.	Max.	Mean	Std. Deviation
Personal relationships with God/Divine (Transcendental dimension)	3.80	1.00	4.80	2.57	1.05
Relationship towards oneself (Personal dimension)	4.00	1.00	5.00	3.14	0.88
Relationships with others (Communal dimension)	3.50	1.50	5.00	3.25	0.82
Relationships with nature (Environmental dimension)	3.75	1.25	5.00	3.09	0.84
Personal integrity	4.00	1.00	5.00	3.22	0.85

Table 4 reflects data about the factor: *Relationship towards oneself* (personal dimension) (Mean = 3.78) as the most significant for students that they are eager to develop in their life. This is a very characteristic feature for a contemporary generation x that put their personal Ego at the forefront. They are known as “me” generation. They are open minded, liberal, self-expressive and at the same time can be described as “self-obsessed narcissists.”

Table 4

Descriptive statistics of a subjective spiritual well-being (the ideal state desired for the spiritual health)

	Range	Min.	Max.	Mean	Std. Deviation
Personal relationships with God/Divine (Transcendental dimension)	4.00	1.00	5.00	3.01	1.27
Relationship towards oneself (Personal dimension)	4.00	1.00	5.00	3.78	0.85
Relationships with others (Communal dimension)	3.75	1.25	5.00	3.73	0.91
Relationships with nature (Environmental dimension)	4.00	1.00	5.00	3.59	0.98
Personal integrity	4.00	1.00	5.00	3.71	0.90

In terms of gender differences, all factors, except for *Relationships with Nature* (environmental dimension), are rated higher by girls than by boys. However, the differences are statistically significant only in the assessment of the factor “*personal Relationships with God/Divine*” (Transcendental dimension) (Fig. 1).

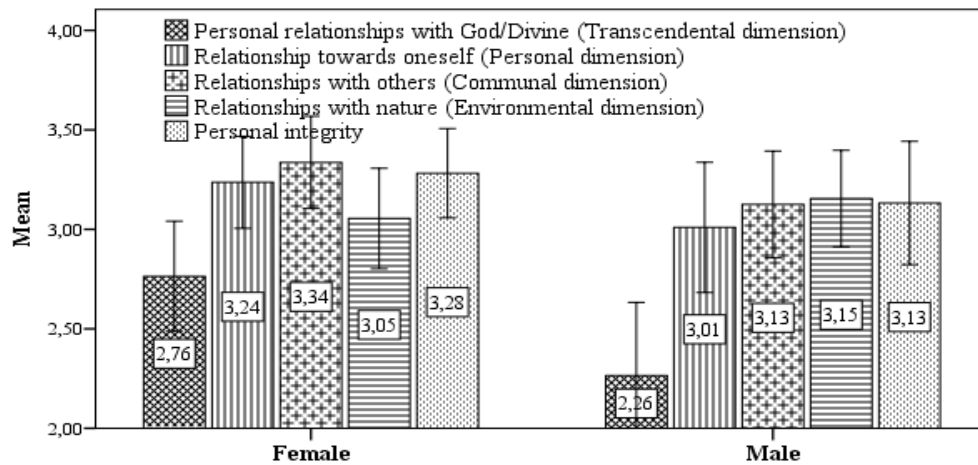


Figure 1. Mean values of Spiritual well-being factors in different gender groups

The differences are more distinct in students' evaluation of their relationships with God, that is much higher among girls (see Fig. 2).

Estimated Marginal Means of Personal relationships with God/Divine (Transcendental dimension)

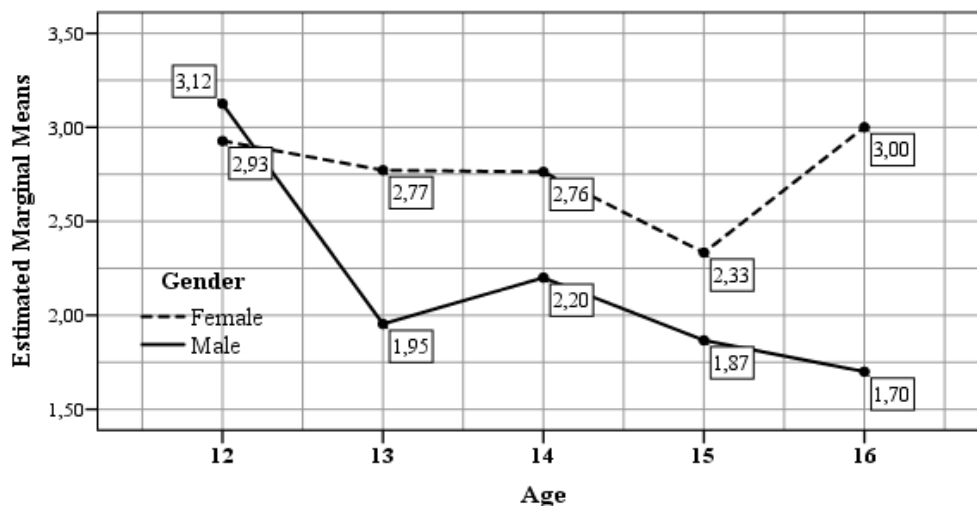


Figure 2. Average values of the factor personal relationships with God / Divine (transcendental dimension) among respondents of different age and gender

Conclusions

COVID-19 has disrupted a well-being of youth to a great extent. From the psychological perspective, a lived spirituality is a significant means that helps students to deal with stress and anxiety in everyday lives. Spirituality can be defined as connectedness to oneself, connectedness to social environment and nature, as well as one's relatedness to higher spiritual being/God, one's experience of transcendence.

In post-pandemic pandemic this is particularly important to pay attention to a spiritual well-being that is closely related to one's subjective well-being, mental health and life orientations. The authors view spirituality as a broader category that relates how one forms relations towards self, others, nature and the Ultimate reality. Spirituality is not linked to religion but it viewed in a broader holistic framework. This was concluded that for young people spirituality helps to develop a resilience to deal with anxiety and stress caused by the pandemic. Spiritual well-being described one's search for meaning and connectedness with self, God, others, and the environment.

The term "spirituality has reached high attention among the researchers in psychology and sociology of religion. The notion of spirituality was associated with an organized religious belief and the experience of transcendence, while contemporary studies relate spirituality to a search for meaning, spiritual well-

being and mental health resulting in inner peace. In Western societies when people do not associate themselves with the organized religion while define themselves as spiritual human beings.

For the purpose of this study, the authors' chose Fisher's scale of Spiritual Well-being that serves as a valuable tool for conceptualization of students' spiritual orientation. The analyses of research data allows to identify a five-factor structure of spiritual wellbeing: F1 - Personal relationships with God/Divine (Transcendental dimension), F2 - *Relationship towards oneself* (Personal dimension), F3 - *Relationships with others* (Communal dimension), F4 - *Relationships with nature* (Environmental dimension) and F5 - *Personal integrity*. The biggest SD is for one's personal relationships with God/Divine and higher for females as compared with male participants.

The descriptive statistics of a *Subjective Spiritual well-being* indicates that the highest value has gained the factor 3 - *Relations with others* (communal dimension) (Mean=3,25) but as desired value of subjection well-being is *Relatedness to oneself* (Mean =3,78), and the ability of express oneself as one of the typical features of millennials. The relatedness with others is being evaluated higher among girls as compared to boys.




This was concluded that during the pandemic while being totally emersed in the digital environment, spiritual well-being plays important role in overcoming students' anxiety and stress and helps them to find peace and resilience in nature, in the community with their family members.

Bibliography

1. Aggarwal, S., Wright, J., & Morgan, A. et al (2023). Religiosity and spirituality in the prevention and management of depression and anxiety in young people: a systematic review and meta-analysis. *BMC Psychiatry*, 23, 729-735. <https://doi.org/10.1186/s12888-023-05091-2>.
2. Betton, V., & Woolard J. (2019). *Teen mental health in an online world. Supporting young people around their use of social media, apps, gaming, texting and the rest*. London and Philadelphia: Jessika Kingsley Publishers.
3. Božek, P.F. Nowak., & Blukacz, M. (2021) The relationship between spirituality, health related behavior, and psychological well-being, *Frontiers in Psychology*, 11.
4. Davis, L.T., Kerr B.A., & Robinson S.E (2003). Meaning, purpose, and religiosity in at-Risk youth: The relationship between anxiety and spirituality. *Journal of Psychology and Theology*, 31(4), 356–365.
5. Davis, K. (2021). Friendship 2.0: Adolescents' experiences of belonging and self-disclosure online. *Journal of Adolescence*, 35(6), 1527-1536.
6. Dreyer, L, & Dreyer, S. (2001). Spiritual well-being and health. *African Journal for Physical Health Education, Recreation and Dance*, 7(3), 142-152.
7. Fisher, J. (2010). Development and application of a spiritual well-being questionnaire called SHALOM. *Religions*, (1), 105–121. doi: /10.3390/rel1010105
8. Fisher, J.W. (2021). The importance of relating with God for spiritual well-being, In M. Weiss, & Fowler, M. (Eds.), *Spirituality: New reflections on theory, praxis & pedagogy*. (pp.147-152). Oxford, UK: Inter Disciplinary Press.
9. Iliško, Dz. (2021). Searching for meaning and identity among young people in an uncertain world: Perspectives from Latvia. In Ruth, W. Mukhlis Abu, B. et al (Ed)., *The Bloomsbury handbook of culture and identity from early childhood to early adulthood* (pp. 448- 454). London Bloomsbury Publishing.
10. Koenig, H.G. (2008). Concerns about measuring “spirituality” in Research. *The Journal of Nervous and Mental Disease*, 196(5), 349-355.
11. Moberg, D.O. (2011). Spirituality research: Measuring the immeasurable? *Perspectives on Science and Christian Faith*, 99-114.
12. Moreira, W.C., Nóbrega, M.P.S, Lima, F.P., Lago, E.C., & Lima, M.O. (2020) Effects of the association between spirituality, religiosity and physical activity on health/mental health: A systematic review. *Revista da Escola de Enfermagem da U S*, 54, e03631. doi: <https://doi.org/10.1590/S1980-220X2019012903631>
13. OECD (2010). Inspired by technology, driven by pedagogy. A systemic approach to technology-based school innovations. <https://read.oecd-ilibrary.org/education/inspired-by->

- technologydriven-by-pedagogy_9789264094437-en#page3 doi:
<https://dx.doi.org/10.1787/9789264094437-en>
14. OECD (2022). OECD Policy responses to Coronavirus (COVID-19). Youth and COVID-19: Response, recovery and resilience. <https://www.oecd.org/coronavirus/policy-responses/youth-and-covid-19-response-recovery-and-resilience-c40e61c6>
 15. OECD (2021). Learning remotely when schools close: How well are students and schools prepared? Insights from PISA, OECD Publishing, Paris.
 16. Paloutzian R. F., & Ellison C. W. (1982). Loneliness, spiritual well-being and the quality of life. In L. A. Peplau, & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy*. (pp. 224-236). New York: John Wiley & Sons.
 17. Ryff C. D., & Keyes C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727. doi: [org/10.1037/0022-3514.69.4.719](https://doi.org/10.1037/0022-3514.69.4.719).
 18. Schwalm, F.D., Zandavalli, R.B., de Castro Filho, E.D. & Lucchetti, G. (2022). Is there a relationship between spirituality/religiosity and resilience? A systematic review and meta-analysis of observational studies. *Journal of Health Psychology*, 27(5), 1218-1232. doi:10.1177/1359105320984537
 19. Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. Basic Books.
 20. UNICEF (2020). Responding to COVID-19, 2020, <https://www.unicef.org/media/100946/file/UNICEF%20Annual%20Report%202020.pdf>
 21. Unterrainer, et al. (2010). Dimensions of religious/spiritual well-being and their relation to personality and psychological well-being. *Personality and Individual Differences*, 49(3), 192-197
 22. Livingstone, S., & Palmer, T. (2012). *Identifying vulnerable children online and what strategies can help them*. UK Safer Internet Centre, London, UK, 2012.
 23. Zhou, Z., Tavan, H., & Kavarizadeh, F. et al. (2024). The relationship between emotional intelligence, spiritual intelligence, and student achievement: a systematic review and meta-analysis. *BMC Medical Education*, 24, 217-222. <https://doi.org/10.1186/s12909-024-05208-5>

Challenges in Cooperation between Farmers and Educational Institutions in Klaipėda Region: the “Farm-to-school” Model Approach

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Abstract: The article analyzes the challenges of small and medium-sized farms related to the development of the "Farm-to-school" model in the Klaipėda region. The research aimed to reveal the possibilities of involving farmers from the Klaipėda region in cooperation with educational institutions to provide them with farm products/services. During the focused group discussion with representatives of small and medium-sized farms in the Klaipėda region, questions relevant to the study were discussed: Are farmers interested in production and providing services to educational institutions? How do they evaluate the public procurement system? What are the possible cooperation opportunities and obstacles, etc. The results showed that the needs and expectations for cooperation of Klaipėda region farmers, municipal employees, and educational institutions as buyers of services basically coincide. Research participants agreed that food from local growers is good, and they would like children to be fed quality food from local farms in schools. However, the results of the study assumed the insufficient literacy of small and medium-sized farmers to effectively develop cooperation with educational institutions. Therefore, the article aims to raise awareness among representatives of small and medium-sized farms and all interested groups about the "Farm-to-school" model, which could have an impact on better involving farmers and strengthening the connection between local farming communities and educational institutions.

Keywords: "Farm-to-school"; involvement of farmers, challenges in cooperation between farmers and educational institutions

Introduction

The “Farm-to-school” model has sparked numerous initiatives worldwide, aiming to establish connections between schools, local farmers, food producers, and distributors. Their collective goal is to supply school cafeterias with fresh, locally sourced food. These initiatives, commonly referred to as Farm-to-school programs, offer more than just healthier dietary choices for students. They also provide support to local agriculture, foster community strength, and educate students about the origins of their food. At a fundamental level, Farm-to-school programs share overarching objectives that revolve around enhancing childhood nutrition, improving school meal quality, and bolstering local markets (Joshi et al., 2014; Roche et al., 2012). Nevertheless, there is a wide spectrum of program implementations across different countries, each tailored to meet these objectives. Consequently, the “Farm-to-school” model has been defined in various ways within the research and program evaluation literature.

The growing body of literature on Farm-to-school programs around the world generally defines their two primary functions as the procurement and preparation of locally produced foods for school meals and experience-based educational activities that delve into the agricultural, culinary, and nutritional qualities of these foods (Schafft et al., 2010).

The procurement and preparation component serves four distinct purposes, as outlined by researchers (Izumi et al., 2009; Meter, 2011). These objectives include enhancing students' nutritional intake, creating markets for small- and medium-sized farmers within the school's local communities and regions, boosting local economies by allocating a greater portion of school food service budgets to foods produced nearby, and promoting sustainable agricultural practices to benefit the natural environment.

The experiential educational component of most Farm-to-school programs has demonstrated its capacity to heighten students' appreciation for and preferences toward healthful foods produced locally, with an environmentally sustainable approach. This aspect is often considered the overarching goal of Farm-to-school programs. The "Farm-to-school" model is also credited with diminishing the social distance between food production and consumption by facilitating initiatives that deliver food to consumers bearing the farmer's face or story (Barlett, 2009). Furthermore, Farm-to-school programs include cross-

promotion of locally featured school foods in retail outlets, healthcare facilities, and other institutions (Watts et al., 2005).

Proponents of the “Farm-to-school” model firmly believe that the combined application of both these components - local food procurement and experience-based education - plays an instrumental role in encouraging students to consume healthful, locally produced food. Research on school gardens, for instance, reveals that experience-based agricultural education heightens students' willingness to consume fruits and vegetables (Kloppenburger, Hassanein, 2006; Morris et al., 2000).

The multicomponent nature of the Farm-to-school programs leads to a diverse set of objectives, which are adaptable to regional and national contexts but converge around overarching principles outlined by Joshi (2014), Joshi et al. (2014). Generally speaking, these initiatives are designed to holistically enhance the well-being of students and their communities, and their core mission revolves around promoting nutrition and health. This is achieved through ensuring that students have access to fresh, locally sourced, and nutritious foods, with the ultimate goal of instilling healthier eating habits and mitigating diet-related health issues (Jones et al., 2015). Besides this, Farm-to-school initiatives actively support local agricultural sectors by generating consistent demand for locally produced foods. This strategy promotes economic growth and provides essential support to local farmers and food producers within the community (Kirwan, 2004, Lyson, 2004).

Moreover, Farm-to-school initiatives create added value in different social, cultural, ecological, etc. areas. Research emphasizes such benefits as: the promotion of sustainable agricultural practices by prioritizing local and seasonal produce, which in turn not only reduces the environmental impact associated with food transportation but also endorses eco-friendly farming methods (Adams, Adams, 2011); contribution to social cohesion by building strong connections within the community, which actively facilitates interactions between schools, students, parents, farmers, and the broader community, fostering a sense of community pride, engagement, and cooperation (Azuma, Fisher, 2001); promotion of environmental stewardship by enhancing understanding of the environmental implications of food production and consumption, encouraging responsible choices that support ecological health (Krogh, Jolly, 2011); addressing food insecurity by ensuring that all students, regardless of their socioeconomic background, have improved access to fresh and nutritious foods (Bagdonis et al., 2009); and cultural diversity by incorporating diverse foods and culinary traditions from the local community, allowing students to appreciate and learn about different cultures through their meals (Izumi et al., 2015).

However, according to researchers, the pivotal component and the overall aim of the Farm-to-school programs should be education (Prescott et al., 2020). By emphasizing education as the central focus, these programs can empower students with valuable knowledge and skills related to agriculture, nutrition, and sustainability. Education within Farm-to-school programs can take various forms, including farm visits, gardening activities, cooking demonstrations, and classroom lessons on topics such as food production, environmental stewardship, and healthy eating habits. Through these activities, students not only gain a deeper understanding of where their food comes from and how it is produced but also develop important critical thinking skills and a sense of environmental responsibility.

Research highlights the following aims of the educational component: education imparts knowledge to students about the origins of their food, cultivation processes, and the significance of sustainable food systems (Krogh, Jolly, 2011); education empowers students to make informed choices that contribute to a more sustainable and responsible food system (Migliorini et al., 2020); education raises awareness about the sources of food, with a focus on informing students about the importance of local food systems and the broader impacts of their food choices on health, the economy, and the environment (Perroni, 2017); education empowers students with practical skills as they are provided with opportunities to engage in gardening, cooking, and other hands-on activities that enable them to make informed choices about their food (Prescott et al., 2020); education involves parents and families in order to engage them in supporting healthy eating habits at home, reinforcing the lessons learned in school (Izumi et al., 2015).

Furthermore, education in Farm-to-school programs extends beyond the classroom, fostering connections between students, local farmers, and the broader community (Azuma, Fisher, 2001). These interactions provide students with real-world learning experiences and opportunities to explore diverse perspectives on food, agriculture, and cultural traditions. By prioritizing education as the core component of Farm-to-school programs, educators and policymakers can maximize the impact of these initiatives in promoting food literacy, environmental awareness, and community engagement among

students. By equipping the next generation with the knowledge and skills to make informed and sustainable food choices, Farm-to-school programs can contribute to building healthier, more resilient communities for the future.

The aim of this article is to analyze the challenges faced by small and medium-sized farms in the Klaipėda region concerning the implementation of the "Farm-to-school" model. The research seeks to explore opportunities for collaboration between farmers and educational institutions, with a focus on providing farm products and services. The objectives of this study are as follows:

- To explore the perceptions and attitudes of farmers in the Klaipėda region towards engaging with educational institutions and supplying farm products and services for "Farm-to-school" initiatives.
- To examine existing strategies and initiatives implemented by educational institutions in the Klaipėda region to procure locally produced foods for school meals and integrate agricultural education into the curriculum.
- To assess the potential benefits and impacts of increased collaboration between small and medium-sized farms and educational institutions in the Klaipėda region within the framework of the "Farm-to-school" model.
- To propose recommendations and strategies for overcoming barriers and fostering successful partnerships between farmers and educational institutions in the Klaipėda region to promote the adoption of the "Farm-to-school" model.

Methods used: theoretical analysis of research resources, Focus-group discussion for empiric data collection, the qualitative content analysis method for qualitative research data analysis.

Methodology

A focus group discussion with farmers and related social partners was held in November 2022 at Klaipėda university. The purpose of the discussion was to find out what challenges local farmers and related representatives of schools have in order to effectively involve farmers in the "Farm-to-school" model.

The questions of the focus group discussion were structured in order to discuss several relevant situations: whether farmers are interested in production, provision of services to educational institutions, how they evaluate the public procurement system, whether they cooperate with educational institutions in order to develop a culture of healthy nutrition, etc. The questionnaire was developed by the project researchers on the basis of the theoretical analysis.

The focus group discussion comprised ten participants representing small and medium-sized businesses in the Klaipėda region particularly those involved in agriculture and food production, including land and food farms. The agriculture and food sector encompasses a broad range of economic activities that involve the cultivation, harvesting, and processing of food resources, as well as various related endeavors such as animal husbandry, forestry, fish farming, and plant breeding. In essence, a farm consists of three main groups of branches: agriculture, industry, and services (<https://osp.stat.gov.lt/zemes-ukis1>).

Table 1

Presentation of focus group discussion participants

Expert code	Sector of agriculture	Short presentation
Ū1	Poultry	Kretinga district poultry (turkey) farm. The production is provided to preschool education institutions.
Ū2	Beef cattle	Klaipėda district beef cattle (beef) farm. There are no contracts with educational institutions.
Ū3	Poultry	Farm poultry (chicken) of Skuodas district. Has contracts with educational institutions.

Expert code	Sector of agriculture	Short presentation
Ū4	Poultry	Skuodas district poultry (chicken) farm. Has contracts with educational institutions.
Ū5	Beef cattle	Klaipēda district beef cattle (beef) farm. There are no contracts with educational institutions.
Ū6	Beef cattle	Klaipēda district beef cattle (beef) farm. There are no contracts with educational institutions.
Ū7	Grains, flour, oils	Klaipēda district grain farm. Another field of activity is the production of oils. There are no contracts with educational institutions.
Ū8	Vegetable cultivation	Klaipēda district vegetable and horticulture farm. Teaching of educational programs in progress. Project activity - it is planned to establish a day care center for children with autism syndrome
Ū9, Ū10	Vegetable cultivation	Klaipēda district vegetable and horticulture farm. Project activities.
Ž11	Klaipēda District Municipality Administration Department of Agriculture	Representative
Ž12	Klaipēda District Municipality Administration Department of Agriculture	Representative
Š13	Education and Sports Department of Klaipēda District Municipality Administration	Representative
M14	Mosēdis children's nursery-kindergarten	Representative
M15	Mosēdis children's nursery-kindergarten	Representative

The qualitative content analysis method was used to analyze the qualitative research data. This choice of research data analysis method was determined by the research topic and problem. The purpose of qualitative content analysis is to describe the studied phenomenon by systematizing and summarizing the research material, to reveal the meanings people give to these phenomena (Žydžiūnaitė, 2007). Before starting the analysis of the research data, the detail of the data analysis was determined. When analyzing the research data, the available texts were read several times in order to deepen as much as possible, to understand what meanings the informants give to the phenomenon under consideration, how they see its context. Themes and subthemes are formulated with the help of excerpts from the examined texts. Qualitative content analysis was carried out in several stages: open coding, data grouping, categorization and abstraction. The extracted meaningful units in the research data matrix were grouped according to content, themes are started to be created, they are grouped, connected according to meaning in order to reduce the volume of data and present the research results to the reader more simply. While coding the research data and distinguishing the themes, the distinguished themes were constantly compared with each other, because it was believed that such a comparative analysis can provide original insights, highlight the essential differences between the themes and avoid superficiality. Although qualitative content analysis was used to analyze the data, it is based on the assumption that the peculiarity of working with data in qualitative research is characterized by the fact that there is no single analytical approach or model of analytical work. Even with common strategies and guidelines, each researcher develops a fundamentally unique data analysis model (Žydžiūnaitė, 2007).

Results and Discussion

When examining the transcribed statements from the focus group participants, several key themes have emerged, shedding light on the intricate dynamics between local farms and educational institutions involved in farm-to-school programs. These overarching themes encompass:

- **Quality of production/services provided by farms:** This theme delves into the perceptions and experiences related to the quality of produce and services offered by local farms. It encompasses discussions on factors such as the freshness of the produce, reliability of farm services, and the overall satisfaction of schools and students.
- **Cooperation with educational institutions: current situation, expectations and challenges:** This theme examines the existing state of collaboration between local farms and educational institutions. It encompasses discussions on the current state of cooperation, expectations from both sides, and challenges faced in establishing and maintaining these partnerships. Sub-themes might include the clarity of roles and responsibilities, communication effectiveness, and mutual goals.
- **Issues of public procurement organization and execution:** In this theme, the focus group participants discuss the intricacies of public procurement processes as they pertain to farm-to-school programs. Sub-topics include the efficiency of procurement procedures, the involvement of multiple stakeholders, regulatory challenges, and areas requiring improvement in the procurement system.
- **Farm education:** Participants delve into the role of farm education within the program. This includes discussions on the extent to which students are educated about the origins and cultivation of their food, the methods used to deliver this education, and its overall impact on student awareness and engagement.
- **The role of the municipality:** This theme explores the role played by local municipalities in facilitating farm-to-school programs. It encompasses discussions on how municipalities support these initiatives, allocate resources, and collaborate with farms and educational institutions to ensure the success of such programs.
- **Good examples of cooperation between farmers and educational institutions:** This theme highlights successful instances of collaboration between local farmers and educational institutions. These examples serve as practical illustrations of how farm-to-school programs can be effectively implemented, thus providing valuable insights and inspiration for future endeavors.

Below is a presentation of the results of the research conducted, emphasizing the main themes and sub-themes that emerged.

- **Quality of production/services provided by farms**

When talking about the products they grow/the services they provide, the farmers who participated in the discussion emphasized that the quality of the products/services is the most important factor for their success as an economic sector (representatives of small and medium businesses). *"Farmers are always responsible" for their production and strive to ensure its quality in every possible way, as this is one of the most important factors for farmers in order to survive in the market*" (Ū2). By providing low-quality products/services, *"the farmer will do himself and his children a disservice" and will simply not enter the market anymore*" (Ū1). Participants from the farm sector also emphasized that *"we, farmers, know that we provide quality products and we are interested in our products reaching children"* (Ū2). In addition, the informants added that *"a small farm is quality, an industrial farm is quantity. If the kindergarten wants quality food, it should be taken from farms"* (Ū3). According to the informants, *"educational institutions must realize that they are buying quality"* (Ū8). Summarizing the statements of the informants, it can be concluded that farmers seek to ensure the quality of their production and services, and also, in their opinion, they could contribute to improving the quality of food for children in educational institutions.

- **Cooperation with educational institutions: current situation, expectations and challenges**

Farmers participating in the discussion emphasized that currently the cooperation of educational institutions with local farms in the Klaipėda region is not very developed. Some farms in the Klaipėda region provide their production to educational institutions, but only to pre-school education institutions,

and only in cases where the institutions themselves carry out purchases (Such purchases of pre-school education institutions were encouraged by the State program)

Several of the farmers who participated in the discussion have had or currently have contracts with educational institutions (preschools) and provide them with their produce. *"We participate actively, we have 25 contracts, we are one of the largest providers of services to kindergartens, but we are the only ones here, others do not actively participate"* (Ū1). Most often, such examples of cooperation occur when farmers provide one specific type of produce (such as turkey in this case). Other participants said that when cooperating with pre-school education institutions, they are *"oriented to people, to specific needs, since we don't have a lot of production, but we have a huge variety, so we already have target customers, whom we simply call and provide as much as we can"* (Ū8). This way of providing products/services to educational institutions is more acceptable for farmers with various fields of activity (e.g. farmer-growers, farmer-producers).

Other participants in the discussion, farmers, said that they would be interested in the possibility of "getting into" educational institutions. *"We have been talking about it for two years now, but it seems that the road is difficult"* (Ū7). The participants of the discussion would like more support in this process from the local municipality. The informants suggested several possible ways of support: *"a responsible person in the municipality could be appointed to advise and provide assistance to farmers who want to participate in public procurement"* (Ū7). *"There could also be such a model that the municipality collects information about purchases and shares it with interested farmers"* (Ū7).

The participants of the discussion also reasoned about the motivation to participate in purchases organized by educational institutions. The discussants also saw the economic motive *"of course it's money, so the farmer, thinking about such an opportunity, evaluates himself in terms of his capacity, but on the other hand, also checks"* (Ū8). Other participants of the discussion saw the social motives: *"On the other hand, it is an opportunity to contribute to more noble goals - a culture of healthy eating, etc. formation"* (Ū2). However, the participants of the discussion agreed that cooperation with educational institutions *"should be a win-win strategy for farmers"* (Ū8), as it would meet both economic and social needs. *"Every entrepreneur is calculating. However, if the provided product or service would help solve other problems and also contribute to the development of healthy eating skills, it would be a great result"* (Ū10).

Regarding the cooperation between farmers and educational institutions, the informants saw an important question - who becomes the initiator of such cooperation - *"do farmers find a kindergarten, or does the kindergarten itself look for and approach the farmers?"* (Ū7). According to the farmers, they are partly held back by not knowing how to act, *"we minimally applied to kindergartens, because through the prism of fears about those public procurements, we know that we won't be able to do much"* (Ū7). Participants in the discussion, representatives of the educational institution, emphasized that the development of cooperation between the educational institution and farmers is *"a matter of attitude, whether to put in the effort - to go look for the farmer, talk with him, on the other hand, the purchases for the educational institution increase, because you buy potatoes from one, poultry from another and you can buy everything immediately from the wholesale provider"* (M15). Meanwhile, farmer informants said that educational institutions could show more initiative to cooperate with farmers (Ū5, Ū6). The participants of the discussion came to the opinion that both sides lack information and communication.

During the discussion, the issue of special requirements (e.g. hygiene, quality, logistics, etc.) for farmers' products/services, taking into account the specifics of educational institutions, was also discussed. In response, the informants emphasized that *"yes, of course there are such requirements and the production is checked by the Veterinary Service, etc., but it is very easy to make an agreement with the farmers, you just tell them how much you need and on what day and they bring you fresh produce"* (M13). An important aspect is logistical issues. Educational institutions do not have storage facilities, so *"they can buy only a small amount of produce, so it is also additional work for the person in charge - to calculate how much is needed and what is needed, and also how long it will be used"* (M15).

- **Issues of organization and execution of public procurement**

In the currently existing practice of public procurement, managers of educational institutions organize small purchases (up to EUR 15,000), according to farmers, this is a good practice, because managers know what products their institutions need. According to the informants, *"if the farmer buys low-quality*

produce, the cooks will put it on the table and say 'eat it yourself'" (Ū1). The informants emphasized that "the managers of the educational institutions are really able to buy a quality product, but if the municipalities buy it, there will be no reason to complain, you will have to eat, because the arguments will be that we bought it according to the current laws, we bought it cheaply" (Ū2). However, in such a case, according to the participants of the discussion, there is a high probability that the children will receive lower quality food, which the children will simply not want to eat, and then many will say "that the children are spoiled, their eating habits have not been formed" (Ū2).

Farmer participants in the discussion emphasized that short chains (i.e. there can be no more than one intermediary between the consumer and the grower) are very effective *"after all, buying local food supports the country's economy and fosters community spirit" (Ū10). The participants in the discussion emphasized such short chains as well. advantages such as: "kindergartens will definitely receive fresh, high-quality food, not a rotten product" (Ū8), "children have different needs, they sometimes care about the color of tomatoes, so it is very important to know those needs" (Ū9). According to the informants, there should be direct communication between the nursery school and the farmer.*

However, in Lithuania, there is currently a tendency to increase public procurement, i.e. to centralize them (we want to put purchases in the hands of municipalities). Farmers expressed their fear that this would pose a great threat to food quality - they would buy from large suppliers who have the ability to offer lower prices but are not responsible for quality. The most important criterion for such centralized purchases is price, while quality criteria are rarely strictly defined in technical specifications. According to the informants, *"industrial farm and wholesale trade is about quantity, according to informants, small farms are about quality" (Ū3). According to the informants, it is very important to maintain short chains: "It is necessary to maintain short chains, not to get involved in mass purchases, because the human-farmer is responsible for quality" (Ū2). "How will the purchases be scaled up, what product will the children get?" High-quality or simply cheaper?" (Ū9). However, the participants of the discussion also emphasized the fact that by abandoning the short chains, the additional administrative burden increases and "the short chain is put under pressure, we put it on the neck of the farmer, one thing - the requirements are getting stricter, another thing - "paperwork", new forms of reports are appearing" (Ū2). In the opinion of the informants, "perhaps the process of centralizing public procurement would help the educational institutions themselves (because they would take over that function), but there would no longer be a short circuit" (Ū4).*

According to farmers, decentralized public procurement would give freedom to farmers and help them get fresh produce directly from the farm.

- **Education carried out by farms**

The participants of the discussion emphasized that children should be taught from an early age *"children must also know where milk comes from and where potatoes grow" (Ū2), because in this way we will contribute to the formation of their healthy eating skills.*

Participants in the discussion organic farms conduct educational programs about what is ecology and healthier food. But *"currently, these educational programs are more attractive to adult communities that are concerned with healthy eating issues" (Ū7), according to the participants of the discussion, it would be important to promote this type of education in educational institutions as well. According to the informants, educational programs about organic food from the mouths of farmers would be significant for both children and parents, so that with their help, healthy eating skills could be formed more effectively. Other participants in the discussion emphasized that they have been conducting educational activities on their farms for some time and invite educational institutions to actively participate in their programs. "We want to form a person's deep attitude towards what is important through real examples, because when people come to the farm, they see with their own eyes how everything grows" (Ū8).*

The participants of the discussion said that they would be interested in allocating part of their land to educational institutions, so that the students themselves could grow produce when they arrived. In addition, the farmers participating in the discussion supported the initiative for educational institutions to go to their farms for educational purposes, to contribute by organizing educational sessions.

- **The role of the municipality**

Speaking about the role of the local municipality in promoting the involvement of farmers, the participants of the discussion noted that it would be very important to ensure proper information and communication. The farmers who took part in the discussion emphasized that *"some kind of page should appear, where all farmers would gather what they grow, so that anyone, a school, a kindergarten, could find information"* (Ū8). The informants said that there are such initiatives (interactive maps, etc.), but *"it would be relevant for every district to have such a map"* (Ū8). It would also be important to publish educational activities carried out by farmers. However, the informants emphasized that economic and other factors would be important. considerations *"a farmer must have a walkie-talkie (mark on the map or advertise his products, services) for whom I am doing this, why it is economically beneficial for me"* (Ū9). Other participants noted that there are project activities that have led to the creation of such initiatives (e.g. the AgroBazaar project), but these initiatives are not publicly known.

On the other hand, the informants emphasized the role of the Municipal Agriculture Department. *"We have an intermediary institution, the Department of Agriculture, which has all that information"* (Ū1), *"could be an effective mediator between farmers and educational institutions."* However, such possibilities are somewhat limited by the existing data protection legal acts. Informants agreed that municipalities could create an open platform where farmers themselves could identify themselves on the map.

The farmers participating in the discussion emphasized that *"the most important thing is to publicize information about organic farmers, that we have such farmers and that they can provide healthier food for children"* (Ū7). *"There are farms willing to invite students to educational programs."* The representatives of the municipality agreed that it would be very important to organize joint events for target groups, *"we have farm data tables that we constantly fill in, we personally contact when needed, but this is not effective communication, it is necessary for both parties to learn the advantages of cooperation"* (Ž11). The informants suggested organizing a *"conference for educational institutions to bring both parties together to realize mutual benefits"* (M15).

Another important observation of the informants is that municipalities could declare the priority of healthy meals in their strategic documents. Farmers' involvement could then be promoted through various formal means.

- **Good practice examples**

The representatives of the educational institution that participated in the discussion shared their examples of good practice. *"We buy, we buy a lot, we compared the prices, it's really not much different compared to wholesale suppliers"* (M13). The informants emphasized that they search for and choose farmers themselves. *"It's convenient for schools to order a week's worth of food, because they don't have the conditions to store it; freshness, variety, and seasonality of food are important"* (Ū8). The informants gave examples of the participation of educational institutions (preschool education institutions) in the state program, and also emphasized the need for children's ecological education (Š12).

Meanwhile, the farmers participating in the discussion emphasized that they are developing the idea of cooperation with educational institutions and would like closer cooperation with educational institutions, but they do not know how to achieve it, therefore, in their opinion, there should be a mutual initiative.

The participants of the discussion expressed the need to *"educate the farmers themselves - that today's understanding of cooperation combines management, which gives food growers the opportunity to provide a more varied choice and fulfill the catering wishes of public institutions (according to seasonality, according to the variety of products, to insure against extreme natural conditions or relevant conditions that limit obligations to provide food, etc.)"* (L9). The expressed need is that not only food growers, but also food producers (producers) should come together.

In order for the cooperation of farmers and educational institutions to be smooth, it is necessary to carry out needs studies. *"Both educational institutions and farmers themselves should clearly express their needs for cooperation"* (Ū4), this would facilitate the involvement of farmers.

Discussion

Research supports the notion that quality is a critical factor in the success of agricultural businesses, particularly in the context of Farm-to-school programs. Studies have shown that consumers, including educational institutions, place a high value on the quality of locally sourced food, emphasizing freshness, nutritional content, and taste (Ditlevsen et al., 2020). The discussion on the quality of production and services provided by Klaipeda region farmers revealed a unanimous emphasis on quality as the cornerstone of success for farmers. Participants underscored that ensuring high-quality products and services is not just a business strategy but a responsibility towards consumers and future generations. It was noted that small farms prioritize quality over quantity, positioning themselves as providers of premium produce. Farmers expressed their commitment to maintaining quality standards and contributing to improving the quality of food for children in educational institutions.

The Farm-to-school program has emerged as a promising initiative to bridge the gap between schools and local farms, offering numerous benefits such as the supply of local products to school canteens (Botkins, Roe, 2018), hosting community events on farms (Selmer et al., 2014), and establishing regular markets for local producers (Allen, Guthman, 2006). However, in the case of the Klaipeda region, effective collaboration between schools and farms is still an ambition rather than a reality, as evidenced by the findings of the focus group discussion. While some farms supply produce to preschool education institutions, these partnerships are limited, often relying on specific contracts or one-off arrangements. Farmers expressed interest in expanding cooperation but cited challenges such as lack of support from local municipalities and unclear initiation processes. They suggested initiatives like appointing a dedicated liaison in municipalities to facilitate farmer-school partnerships and sharing procurement information with interested farmers.

Research supports the notion that decentralized procurement and short supply chains contribute to the provision of fresh, high-quality food for educational institutions. Studies have shown that shorter supply chains are associated with numerous benefits, including improved product quality, enhanced traceability, and greater economic resilience for local farmers and communities (Berti, Mulligan, 2016). The discussion also delved into issues surrounding public procurement organization and execution. Participants favored decentralized procurement, emphasizing the effectiveness of short supply chains in ensuring fresh, high-quality produce for educational institutions. However, they expressed concerns about the trend towards centralized procurement, fearing a compromise in food quality due to a focus on cost rather than quality. Maintaining short supply chains was seen as essential for upholding quality standards, although participants acknowledged the administrative burdens associated with such arrangements.

Jolly et al. (2010) outlined fundamental principles guiding the collaboration between farms and educational institutions, emphasizing the importance of collaborative training for teachers and farmers, co-designing educational programs, fostering a shared vision, and mediating between the needs of farmers and teachers. Despite these principles, the Klaipeda region faces challenges in actualizing these collaborations. Education carried out by farms was identified as a crucial aspect of promoting healthy eating habits among children. Participants stressed the importance of early education on food origins and healthy eating, advocating for farm-based educational programs. While organic farms have been active in offering educational initiatives, there was a call for broader integration of such programs into educational institutions to reach a wider audience. Farmers expressed readiness to allocate land for educational activities and invited schools to participate in farm-based learning experiences.

One crucial aspect highlighted by research is the collaborative design of educational activities by farmers and teachers. This approach relies on a shared acknowledgment of skills and knowledge, fostering close contact between farmers and teachers to seamlessly integrate farm activities into the regular curriculum (Jolly et al., 2004). However, the pedagogical role of farmers and their interaction with children's and teachers' often stereotypical perceptions of farm life pose challenges to this co-design process. Good practice examples shared by educational institutions demonstrated successful collaborations with farmers, highlighting the feasibility and benefits of sourcing fresh, seasonal produce locally. However, there was a consensus among participants on the need for mutual initiative and clearer communication channels to enhance farmer-school partnerships. Education and needs assessments were deemed

essential for streamlining cooperation between farmers and educational institutions, ensuring that collaborations are mutually beneficial and contribute to the well-being of children and communities.

Research discloses the role of municipalities as key stakeholders capable of fostering an enabling environment for such partnerships through policy development, resource allocation, and coordination efforts (Xing et al., 2018). The role of the municipality was highlighted during the Focus group discussion as pivotal in fostering farmer-school collaborations. Participants suggested initiatives like creating online platforms to connect farmers with educational institutions and organizing joint events to promote mutual understanding and cooperation. Municipalities were urged to prioritize healthy meals in their strategic documents and facilitate communication between farmers and schools to realize mutual benefits.

In conclusion, while the Farm-to-school program offers significant potential for collaboration between schools and farms, the Klaipeda region faces challenges in implementing effective partnerships. Overcoming these challenges requires concerted efforts to provide collaborative training, co-design educational activities, and foster meaningful interactions between farmers and teachers. By addressing these issues, the Farm-to-school program in the Klaipeda region can realize its full potential in promoting agricultural education and fostering community connections.

Conclusions

The research findings reveal several critical themes and sub-themes that are instrumental in understanding the dynamics between farmers and educational institutions, particularly in the Klaipeda region. These insights offer valuable perspectives on quality of production/services, cooperation with educational institutions, public procurement organization, farm-based education, the role of the municipality, and good practice examples.

Farmers recognize that product/service quality is paramount for their success. Ensuring high-quality products is a top priority for farmers, as they understand that quality is essential for survival in the market. The community perceives smaller farms as synonymous with quality, emphasizing that educational institutions should prioritize quality when sourcing food. Current cooperation between local farms and educational institutions in the Klaipeda region is limited, with only pre-school education institutions engaging in such partnerships when they handle their own procurement. While some farmers have contracts with these institutions, broader cooperation is hampered by challenges, including limited information sharing, need for support from local municipalities, and questions about who should initiate cooperation.

Farmers express economic and social motives for engaging with educational institutions, emphasizing the importance of a win-win strategy. Farmers support short chains for the procurement of fresh and high-quality produce, believing that direct communication between farmers and educational institutions is crucial. However, the trend toward centralizing public procurement poses a potential threat to food quality, as price-driven criteria overshadow quality standards. The administrative burden also increases with longer procurement chains. Encouraging children to understand where their food comes from and promoting healthy eating skills is essential. Farmers emphasize the value of educational programs about ecology and healthier food, indicating that such programs could benefit both children and parents.

Farmers are willing to allocate land for educational institutions to grow their produce and suggest the possibility of institutions visiting farms for educational purposes. Effective communication, information dissemination, and coordination between farmers and educational institutions are vital, with participants suggesting the need for an interactive platform that lists farmers and their produce. The Municipal Agriculture Department could serve as a mediator between farmers and educational institutions, fostering collaboration and providing essential information.

Educational institutions and farmers shared instances of successful cooperation, highlighting the importance of seeking out farmers and embracing a short-chain approach for procuring fresh, seasonal, and varied food. The participants expressed the need for mutual initiative and the importance of promoting a culture of cooperation among farmers and food producers.

Overall, the research underscores the potential for enhanced collaboration between local farms and educational institutions, focusing on quality, sustainability, and healthier food choices for children. It


emphasizes the significance of information sharing, effective communication, and the support of local municipalities in nurturing these partnerships.

Bibliography

1. Adams, D. C., Adams, A. E. (2011). De-placing local at the farmers' market: consumer conceptions of local foods. *Journal of Rural Social Sciences*, 26(2), 4.
2. Azuma, M. Fisher, A. (2001). *Healthy Farms, Healthy Kids: Evaluating the Barriers and Opportunities for Farm-to-School Programs*, 2001. Access via internet: <https://ru.scribd.com/doc/44006802/Healthy-Farms-Healthy-Kids-Evaluating-the-Barriers-and-Opportunities>
3. Bagdonis, J. M., Hinrichs, C. C., Schafft, K. A. (2009). The emergence and framing of farm-to-school initiatives: Civic engagement, health and local agriculture. *Agriculture and Human Values*, 26, 107-119.
4. Barlett, P. F. (2009). Campus sustainable food projects: Critique and engagement. *American anthropologist*, 113(1), 101-115.
5. Berti, G., & Mulligan, C. (2016). Competitiveness of small farms and innovative food supply chains: The role of food hubs in creating sustainable regional and local food systems. *Sustainability*, 8(7), 616.
6. Ditlevsen, K., Denver, S., Christensen, T., & Lassen, J. (2020). A taste for locally produced food-Values, opinions and sociodemographic differences among 'organic' and 'conventional' consumers. *Appetite*, 147, 104544.
7. Izumi, B. T., Eckhardt, C. L., Hallman, J. A., Herro, K., Barberis, D. A. (2015). Harvest for healthy kids pilot study: associations between exposure to a farm-to-preschool intervention and willingness to try and liking of target fruits and vegetables among low-income children in head start. *Journal of the Academy of Nutrition and Dietetics*, 115(12), 2003-2013.
8. Izumi, B. T., Wright, D. W., Hamm, M. W. (2009). Farm to school programs: Exploring the role of regionally-based food distributors in alternative agrifood networks. *Agriculture and Human Values*, 27, 335-350.
9. Jones, S. J., Childers, C., Weaver, A. T., Ball, J. (2015). SC farm-to-school programs encourages children to consume vegetables. *Journal of Hunger & Environmental Nutrition*, 10(4), 511-525.
10. Joshi, A., T. Henderson, M.M. Ratcliffe, and G. Feenstra. (2014). Evaluation for transformation: A cross-sectoral evaluation framework for farm to school. Retrieved from http://www.farmentoschool.org/Resources/Evaluation_Transformation_FINAL-Web.pdf
11. Kirwan, J. (2004). Alternative strategies in the UK agro-food system: interrogating the alterity of farmers' markets. *Sociologia ruralis*, 44(4), 395-415.
12. Kloppenburg Jr, J., & Hassanein, N. (2006). From old school to reform school?. *Agriculture and Human Values*, 23(4), 417.
13. Krogh, E., Jolly, L. (2011). Making Sense of Place: School-Farm Cooperation in Norway. *Children, Youth and Environments*, 21(1), 310-321.
14. Lyson, T. A., Guphill, A. (2004). Commodity agriculture, civic agriculture and the future of US farming. *Rural sociology*, 69(3), 370-385.
15. Meter, K., Freedgood, J., Pierce-Quiñonez, M. (2011). Emerging assessment tools to inform food system planning. *Journal of agriculture, food systems, and community development*, 2(1), 83-104.
16. Migliorini, P., Wezel, A., Veromann, E., Strassner, C., Średnicka-Tober, D., Kahl, J., ... & Rembiałkowska, E. (2020). Students' knowledge and expectations about sustainable food systems in higher education. *International Journal of Sustainability in Higher Education*, 21(6), 1087-1110.
17. Morris, J., Mills, J., & Crawford, I. M. (2000). Promoting farmer uptake of agri-environment schemes: the Countryside Stewardship Arable Options Scheme. *Land use policy*, 17(3), 241-254.
18. Perroni, E. (2017). 19 Farm-to-School Initiatives Making an Impact. Access via internet: <https://foodtank.com/news/2017/10/national-farm-school-initiatives/>

19. Prescott, M. P., Cleary, R., Bonanno, A., Costanigro, M., Jablonski, B. B., & Long, A. B. (2020). Farm to school activities and student outcomes: a systematic review. *Advances in Nutrition*, 11(2), 357-374.
20. Roche, E., Kolodinsky, J.M. (2012). Overcoming barriers to providing local produce in school lunches in Vermont. *Journal of Agriculture, Food Systems, and Community Development*, 1(3), 89-97. DOI: 10.5304/jafscd.2011.013.012
21. Schafft, K., Hinrichs, C. C., & Bloom, J. D. (2010). Pennsylvania farm-to-school programs and the articulation of local context. *Journal of Hunger & Environmental Nutrition*, 5(1), 23-40.
22. Watts, D. C. H., Ilbery, B., Maye, D. (2005). Making reconnections in agro-food geography: alternative systems of food provision. *Progress in Human Geography*, 29(1), 22–40. <https://doi.org/10.1191/0309132505ph526oa>
23. Xing, Y., Liu, Y., & Cooper, S. C. L. (2018). Local government as institutional entrepreneur: Public–private collaborative partnerships in fostering regional entrepreneurship. *British Journal of Management*, 29(4), 670-690.
24. Žydzūnaitė, V. (2006). *Taikomųjų tyrimų metodologijos charakteristikos*. Vilnius: LR Švietimo ir mokslo ministerija ir Pedagogų profesinės raidos centras.

Evaluating the Necessity of Educational Competence for Lecturers through Digitization of Study Subject Content

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Abstract: The article analyses the relationship between educational and digital competences in the development of digital study tools and digitisation of the content of study subjects. A quantitative study was conducted, that is, a survey of lecturers who have participated in educational and content digitisation training courses and developed digital study tools. Simple quantitative analysis was used to process the data. The results of the survey showed that the development and use of digital tools require not only learning the different tools for digitisation, but also knowing what didactic purposes they can be used for and what learning goals they can be used to achieve. Thus, digitising the content of the subject begins with the selection of appropriate tools that serve specific didactic goals. The findings underscore the imperative to improve educational competence through the digitisation of study subject content.

Keywords: educational competences, digital competence, digitisation, higher education.

Introduction

Higher education is constantly undergoing various transformations that are strongly influenced by external and internal factors. External factors are linked to globalisation, which is mainly achieved through the pursuit of internationalisation elements in higher education institutions and their integration into the study process. Internationalisation also encourages competition. Various elements of internationalisation are becoming part of the ranking and image of higher education institutions. Internal demand is manifested through student retention, through the availability of changing and diversifying forms of study. Contact, blended, distance, and hybrid studies are offered to the public, as well as microcredentials or part-time studies, courses, etc. Thus, in the context of competition between higher education institutions and the emergence or intensification of new forms of study, the digital content of study subjects is becoming extremely relevant. Such changes and challenges in higher education also reaffirm the need and relevance of lifelong learning for those involved in higher education, especially lecturers. The quality in question includes various aspects, including the quality of infrastructure, lecturers, education specialists, students, and other supporting elements. Lecturers, as determinants of the quality of a higher education service system, are required to effectively manage their professional duties. They serve as professional educators and scholars with a primary responsibility to transform, develop, and disseminate knowledge in science, technology, and the arts through teaching, research, and community service programs (Retnowati et al., 2021).

Recommendations of the European Council on key competences (2006) state that competences are regarded as "<...> as a combination of knowledge, skills, and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment. The Reference Framework sets out eight key competences: 1. Communication in the mother tongue; 2. Communication in foreign languages; 3. Mathematical competence and basic competences in science and technology; 4. Digital competence; 5. Learning to learn; 6. Social and civic competences; 7. Sense of initiative and entrepreneurship; 8. Cultural awareness and expression" (Recommendation of the European Commission, 2006, 13).

Five areas of competence are distinguished:

1. Information and data literacy (browsing, searching, filtering data, information and digital content; evaluating data, information and digital content; managing data, information and digital content Competence area);
2. Communication and collaboration (interacting through digital technologies; sharing through digital technologies, engaging in citizenship through digital technologies; collaborating through digital technologies; netiquette; managing digital identity);

3. Digital content creation (developing digital content; integrating and re-elaborating digital content; copyright and licences; programming);
4. Safety (protecting devices, protecting personal data and privacy; protecting health and well-being; protecting the environment);
5. Problem solving (solving technical problems; identifying needs and technological responses; creatively using digital technologies; identifying digital competence gaps).

The approach to digital competence is changing as there is a shift from three levels of competence/proficiency (foundation, intermediate, and advanced) to eight levels, which are revealed through complexity of task, autonomy, and cognitive domain. A wider and more detailed range of proficiency levels supports the development of learning and training materials (Carretero Gomez et al., 2017, 11). Van Hong, Tuyen, and Luong (2018) emphasise that 21st-century educators must possess a minimum of three competencies, one of which is the adept application of technology in learning. Digital competence encompasses the adept and discerning use of Information Society Technology (IST) for professional endeavours, recreation, and communication. Integral to this competence are essential knowledge, skills, and attitudes, including an understanding of how IST fosters creativity and innovation, awareness of issues surrounding the validity and reliability of available information, and comprehension of the legal and ethical principles pertinent to the interactive use of IST (Recommendation of the European Commission, 2006, p. 15). All key competences are regarded equally vital, as each contributes to a prosperous life in a knowledge-based society. Many competences exhibit overlap and synergy. Several recurring themes permeate the Reference Framework, such as critical thinking, creativity, initiative, problem-solving, risk assessment, decision-making, and constructive management of emotions, which are integral to all eight key competences (Recommendation of the European ..., 2006, p. 15).

In the development of digital content (digital learning tools), the key to quality is not only teachers with high digital competences, but also, and especially, teachers with educational competences. Ericsson (2008) argues that expertise is the result of deliberate practice. Therefore, because learning at work appears to be essential for teachers to develop themselves professionally, it is vital to carefully study its predictive validity and how to stimulate it (Evers et al., 2016).

M. Wieland and L. Michael (2023) assert that personal openness to digital teaching profoundly impacts attitude, intention, and individual capabilities. 1. Empowering the lecturer: To optimise the efficacy of digital education, it is advisable to grant lecturers access to digital learning materials along with the necessary training to use them effectively. This calls for allocating adequate time for lecturers to engage with the digital learning components and grasp their functionalities. 2. Promoting intrinsic digital education: Integration of digital education should not be obligatory but rather be driven by the lecturer's intrinsic motivation. Universities should provide lecturers with comprehensive information and resources. Furthermore, there should be flexibility in workload regulations, encouraging lecturers to allocate time to acquiring digital skills. 3. Fostering intention: Despite the absence of a significant correlation between intention and usage in the study, it is suggested that universities motivate lecturers to embrace digital education by nurturing personal openness and dismantling barriers. This could involve establishing accessible channels for lecturers to share experiences and best practices, as well as providing platforms for mutual support among lecturers.

The use of technological solutions to digitise content also needs to be considered. Arthur-Nyarko, Agyei and Armah (2020) analyse learners' readiness to use digital learning materials. The reports of the respondents on their effectiveness showed that the majority (more than 70%) of them confirmed that they are ready to use digital learning materials.

The aim of the article is to examine the necessity of the development of educational competence for lecturers through digitisation of study subject content. This is achieved by analysing the viewpoints of lecturers who have undergone the digitisation process.

Methodology

The research questions are as follows: do educators who acquire digital skills adequately consider educational contexts? Is it imperative for them to possess proficiency in digital tools, or should classical

educational principles take precedence – beginning with defining learning objectives and then adapting tools accordingly? In Lithuania, as of January 2023, all higher education institutions have been included in the project "Digital Transformation of Education ("EdTech")". The aim of the project is to promote educational innovation based on digital technologies in the education sector by enabling the development and testing of innovations in educational institutions and by providing advice through technology-savvy teacher-innovators and experts who will support educational institutions and educators facing difficulties in using technologies and digital resources. The project aims to enable the education system to operate more efficiently and improve the quality of learning outcomes through educational technology and digital innovation.

VILNIUS TECH has been one of the main institutions involved in the project. Throughout the year, the objective was to train 68 lecturers and create 89 innovative digital tools within the MOODLE virtual learning environment. The project was coordinated and executed by e-learning specialists and educational researchers, with participation primarily from engineering educators. These digital tools were developed by lecturers in accordance with precise criteria established by the project organisers. In addition, the participants underwent 66 hours of training in digitisation and educational techniques. Consequently, in the process of digitising the course content and crafting digital learning tools, questions often arise regarding the need for educational competence. While subject expertise is crucial in digital tool development, the ability to effectively present it to students requires educational competence, thereby merging with digital proficiency.

Data were gathered using a combination of scientific literature and document analysis, alongside a quantitative research approach through written surveys. The survey was conducted in October 2023, with questionnaires distributed to 68 lecturers, out of which 53 were returned, yielding a response rate of 57% in the field of technology, 32% in social sciences, 6% in humanities, and 5% in natural sciences. Among the respondents, 55% held the position of associate professor, 27% were professors, and 18% were lecturers. The highest percentage of respondents, 43%, reported having 11-20 years of teaching experience, followed by 34% with 21-30 years of experience, 18% with 6-10 years of experience, and only 2% with less than 5 years of experience.

Results and Discussion

The empirical study of VILNIUS TECH reveals the results of the assessment of the competences of the lecturers who have developed the digital content of their study subjects (digital study tools) and the need for their further development. The respondents identified the most important or essential competences of higher education lecturers working with digital teaching tools (DTMs) (Figure 1) as: information technology competence (61.4%) and competence for continuous improvement (56.8%), communication competence (47.7%), and didactic competence and evaluation competence (45.5%). Thus, the competences of professional performance, information and data literacy, communication and collaboration, and digital content creation, which are highlighted in DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use (<http://europa.eu/!Yg77Dh>) by the European Commission's Joint Research Centre - © European Union, 2017) are important for teachers. The questionnaire was designed to select the competences constituting the educational competences, which were relevant to the content of the implemented trainings, and thus could reveal the lecturers' views on the effectiveness of the trainings and the need for future competence development.

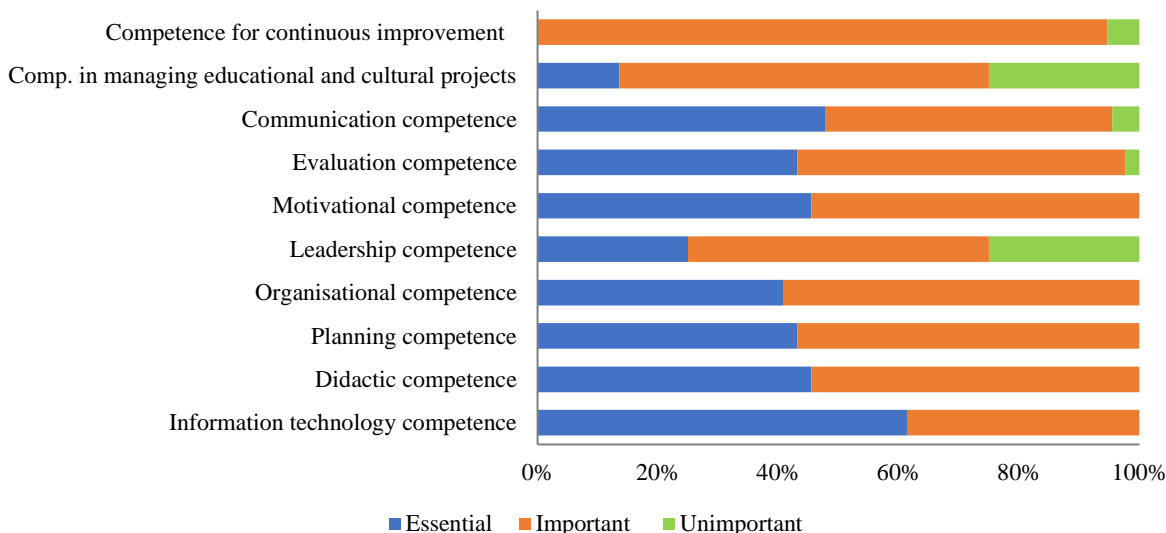


Figure 1. Key competences of a lecturer working with digital teaching tools (DTMs)

The most significant change in professional and personal development for the lecturers who participated in the training sessions was in the following areas: developing new teaching tools, which was rated the highest on a 5-point scale by more than half (54%) of the respondents. The highest scores were also given to the following competences related to lifelong learning: keeping learning and helping others to learn (56.8%), being open to new ideas and experiences and encouraging others to be open to them (45.5%) and using active teaching methods (40.9%). This perspective aligns with the assertion by Jones (2018) that 21st-century education emphasises the cultivation of both social and individual competences, complemented by critical thinking, creativity, adaptability, and entrepreneurial abilities. Thus, the competences for professional evaluation and development were perceived by lecturers to have improved in three dominant areas: developing new learning tools, learning new subjects and being flexible to educational innovations (Figure 2).

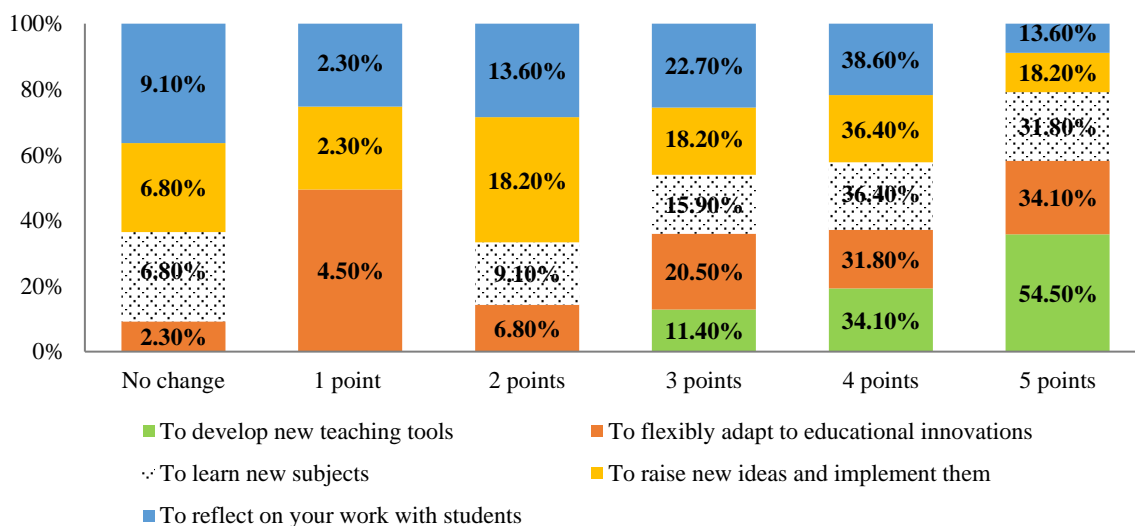


Figure 2. Self-assessment of lecturer professional performance and development competence

In terms of competences, the competences of designing and implementing the educational process are rated good (5 and 4 points): to create assignments for student collaboration 32%, to apply active teaching/learning methods 31%, to create assignments that encourage reflection and to design assignments that students may choose to complete additionally as independent work 30%, to develop assignments for students to complete with IT (information technologies) 29%, to plan the educational process to achieve the aims set 28%, to evoke student interest in the process of learning the subject 27

% . The improvement in the ability to explain theoretical material to students by 10%, to organise problem-based learning, to develop student creativity, to set specific, measurable and achievable aims for student education by 9% were considered as very weak and weak (1 and 2 points) (Table 1). Wieland and Michael (2023) state that digital learning approaches are implemented through various learning elements. Digital learning elements, therefore, represent the implementation or the tool through which knowledge is digitally delivered. <...> Digital elements are increasingly being used in higher education teaching, but the intention and its actual use vary depending on the lecturers. <...> an intention–behaviour gap has been identified: only one-time effort to become familiar with digital elements has a significant impact on actual usage. We conclude that, above all, teachers must first be given the opportunity to become familiar with digital learning elements to be able to use them effectively. <...>.

Table 1

Self-assessment in lecturer competence of educational process modelling and implementation

Skills	No change	1 point	2 points	3 points	4 points	5 points
to explain the theoretical material to students	11.4%	9.1%	13.6%	25.0%	20.5%	20.5%
to evoke student interest in the process of learning the subject	2.3%	9.1%	9.1%	18.2%	29.5%	31.8%
to create assignments for student collaboration	2.3%	2.3%	9.1%	13.6%	38.6%	34.1%
to develop assignments that encourage reflection	4.5%	4.5%	6.8%	15.9%	40.9%	27.3%
to design assignments that students may choose to complete as additional independent work	0.0%	2.3%	11.4%	18.2%	31.8%	36.4%
to develop assignments for students to complete with IT (information technologies)	4.5%	2.3%	9.1%	18.2%	38.6%	27.3%
to apply active teaching/learning methods	0.0%	2.3%	2.3%	25.0%	29.5%	40.9%
to develop student creativity	2.3%	4.5%	15.9%	25.0%	22.7%	29.5%
to organise problem-based teaching	4.5%	13.6%	6.8%	22.7%	29.5%	22.7%
to set specific, measurable and achievable aims for student education	4.5%	11.4%	9.1%	25.0%	25.0%	25.0%
to plan the educational process to achieve the aims set	4.5%	4.5%	13.6%	13.6%	36.4%	27.3%

The ability of a lecturer to plan evaluation and assess student progress and achievement is crucial. The following abilities were rated as excellent by the survey respondents after 66 hours of training aimed at improving educational and digital competences: to critically analyse and interpret the results and progress of students' learning activities and data to collect information for the improvement of teaching and learning to be open to new ideas and experiences and to encourage openness in others 24 %, to enhance students' motivation to learn and to clarify whether the student outcomes achieved reflect the intended aims 23 %, to evaluate the performance of an individual in the group 21 %, to evaluate the performance results of the group (collaboration) 20 % (Table 2).

Table 2

Self-assessment of lecturer competences for evaluating students' progress and achievements

Skills	No change	1 point	2 points	3 points	4 points	5 points
to clarify whether the student outcomes achieved reflect the intended aims	2.3%	11.4%	15.9%	18.2%	34.1%	18.2%
to evaluate the performance results of the group (collaboration)	4.5%	18.2%	13.6%	18.2%	31.8%	13.6%
to evaluate the performance of an individual in the group	6.8%	15.9%	9.1%	20.5%	27.3%	20.5%
to use different forms of assessment (cumulative, formative, etc.)	9.1%	13.6%	11.4%	22.7%	25.0%	18.2%
to choose the most appropriate assessment format/method	11.4%	13.6%	20.5%	15.9%	13.6%	25.0%
to identify students' motivation to learn	9.1%	15.9%	15.9%	15.9%	25.0%	18.2%
to enhance students' motivation to learn	4.5%	15.9%	9.1%	18.2%	31.8%	20.5%
to critically analyse and interpret the results and progress of students' learning activities and data to collect information for the improvement of teaching and learning to be open to new ideas and experiences and to encourage openness in others	2.3%	18.2%	4.5%	20.5%	29.5%	25.0%

Teamwork and leadership competences are perceived to be less improved. Collaborating with colleagues to design educational activities is an area that needs to be improved. Since the lecturers initially underwent joint theoretical and practical training followed by individual consultations, they had limited opportunities to collectively develop digital tools. Consequently, one fifth of the respondents indicated no change in their ability to collaboratively design educational activities with colleagues. However, a third of the lecturers rated the improvement in these skills as 5 and 4. Based on our experience as lecturers who facilitate competence development training, it is evident that participants approach training with diverse objectives, and discrepancies in personality and communication styles play a significant role. During training sessions in which trainers explored and digitised teaching tools, some participants engaged in sharing experiences, asking questions, and discussing with colleagues, while others focused more on tool preparation and individual self-learning or consultations with trainers.

Approximately 48% of lecturers evaluated their proficiency in working with gifted students as excellent or very good (4 and 5 points), while about 43% rated their capability in teaching students with specific needs similarly (Fig. 3). The study by Wei, Haiwang, Yenchun and Mark (2023) shows that students' satisfaction with digitised content depends on the specifics of the study subject. Additionally, the antecedents of student attention vary depending on the course discipline. The disconfirmation effect exhibits course-discipline dependency, being most pronounced in Technical Science courses and least significant in Humanities & Natural Science courses. This means that technological sciences need even more attention to attract and motivate student learning. Interest in the content itself serves as the primary motivation for students. Although numerous factors impact

learner attitudes toward MOOCs, the extent of their influence varies individually, with not all factors equally affecting learner satisfaction.

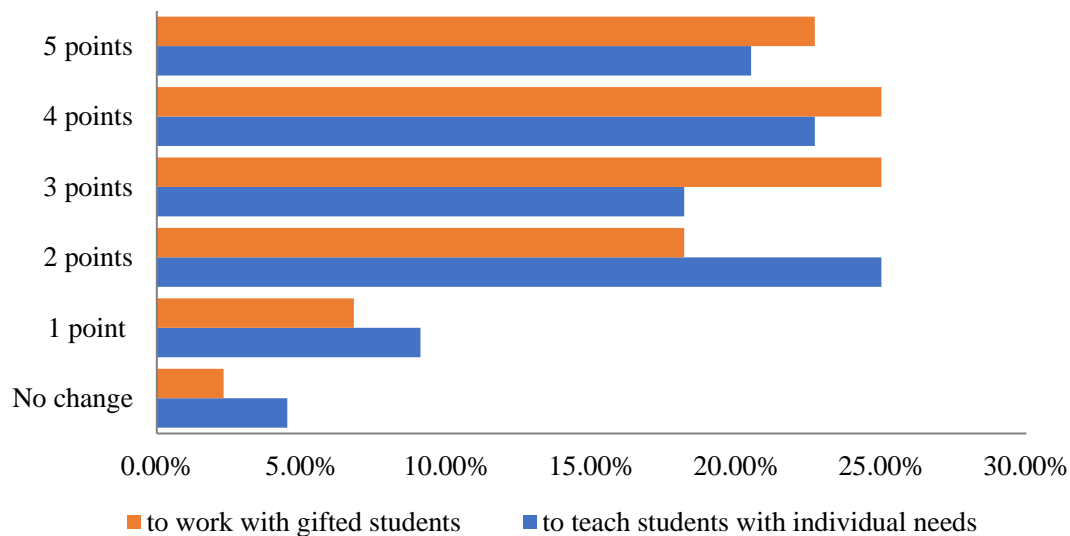


Figure 3. **Self-assessment of lecturer competences teamwork and leadership**

The survey participants were asked what other competences and skills they had improved that were not mentioned in the questionnaire. These included information retrieval and IT management skills, and increased creativity in the development of digital learning materials, gamification, and more diverse educational activities.

Developing and using digital tools requires not only learning the different tools for digitisation, but also knowing what didactic purposes they can be used for and what learning aim they can achieve. Thus, the content of the subject is the first to be digitised through the selection of the appropriate tools (digital competence), in line with the didactic objectives (educational competence) (Fig. 4).

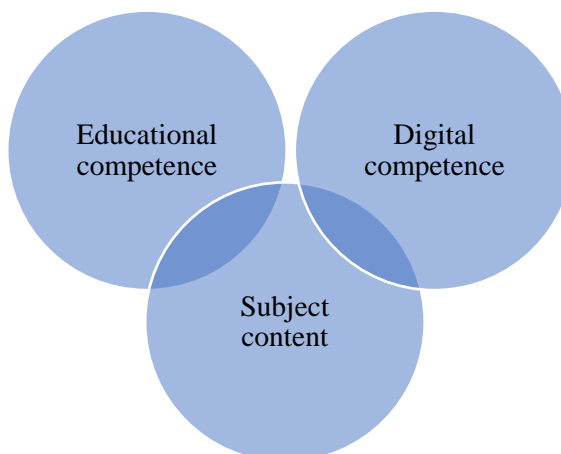


Figure 4. **Links between educational and digital competences through the content of study subjects**

Conclusions

Higher education lecturers should be provided with the conditions for continuous professional development to reflect the principles of lifelong learning. The increasing drive for internationalisation and the growing competition to attract and retain students make the development of digital competences of lecturers a top priority. This is highlighted not only by international documents and also by the conducted research studies. The development of digital competence of lecturers and its realisation through the development of digital content of study subjects depends to a large extent on the personal

attitude, disposition, available time resources, the support received for the acquisition of new digital tools and partly on the specificity of the subject. Although students are ready for and value digital content as an element of quality education, lecturers should be more courageous and diversified in the way they teach their subjects and in the way they offer their studies to society.

The analysis of the survey results shows that lecturers who have developed digital learning tools and thus digitised the content of their courses identify the most important competences as information technology competence (61.4%) and that of continuous development (56.8%). This shows once again that lecturers first need to overcome their fear of technology and master the tools they will use to digitise their content and diversify their studies. Lecturers also identified communication competence (47.7%) and didactic as well as evaluation competences (45.5%) as important. This shows that the development and use of digital tools require not only knowledge of the different tools for digitisation but also knowledge of the didactic purposes for which they can be used and the learning objectives they can be used to achieve. Therefore, the content of the subject is the first to be digitised through the selection of the appropriate tools for the didactic objectives.

Lecturers, when evaluating the components of their enhanced competences (evaluation and development of professional performance, modelling and implementation of the educational process, evaluation of students' progress and achievements, teamwork, and leadership), highlighted the following points which are of utmost importance in digital learning tools. These include the use of active methods, the development of collaborative and reflective tasks for students' independent learning, the reading of students' motivation to learn through tasks and assessment strategies, the measurement of the achievement of objectives and students' results, how to assess individual or group student performance, etc. All this shows once again that educational competence is the basis for the development of digital learning tools. For educational/didactic solutions, digitisation or IT tools are chosen. Therefore, it could be argued that there is a need for the development of educational competence through the digitisation of the content of study subjects and that this should be done systematically and continuously.

Bibliography

1. Arthur-Nyarko, E., Agyei, D.D., Armah, J. K. (2020). Digitizing distance learning materials: Measuring students' readiness and intended challenges. *Education and Information Technologies*, 25, 2987–3002. DOI 10.1007/s10639-019-10060-y
2. Carretero Gomez, S., & Vuorikari, R., & Punie, Y. (2017). DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use, EUR 28558 EN, Publications Office of the European Union, Luxembourg. doi:10.2760/38842 (online). *Scribbr*. <https://op.europa.eu/en/publication-detail/-/publication/3c5e7879-308f-11e7-9412-01aa75ed71a1/language-en>
3. Ericsson K. A. (2008). Deliberate practice and acquisition of expert performance: A general overview. *Academic Emergency Medicine*, 15, 988–994.
4. Evers, A., & Van der Heijden, B. I. J. M., & Kreijns, K., & Vermeulen, M. (2016). Job demands, job resources and flexible competence: The mediating role of teachers' professional development at work. *Journal of Career Development*, 43, 227–243.
5. Jones, Anne. (2018). Vocational Education for the Twenty-First Century. The University of Melbourne. https://melbourne-cshe.unimelb.edu.au/_data/assets/pdf_file/0011/2845775/Final-Anne-Jones-paper1.pdf
6. Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC) *Scribbr*. <https://eur-lex.europa.eu/eli/reco/2006/962/oj>
7. Retnowati, T. H., & Mardapi, D., & Kartowagiran, B., & Hamdi, S. A. (2021) Model of Lecturer Performance Evaluation: Sustainable Lecturer Performance Mapping. *International Journal of Instruction*, 14, 83–102. DOI 10.29333/iji.2021.1426a
8. Van Hong, B., & Tuyen, T., & Luong, N. T. (2018). Teaching Capacity of Technology Teachers: Applying in the Training Program of Technology Teacher in Vietnam. *American Journal of Educational Research*, 6(12), 1662–1667.

9. Wei, W., Haiwang, L., Yenchun, J. W., Mark, G. (2023). Disconfirmation effect on online reviews and learner satisfaction determinants in MOOCs. *Education and Information Technologies*. 28:15497–15521 <https://doi.org/10.1007/s10639-023-11824-3>
10. Wieland, M., & Michael, L. (2023) Understanding intention and use of digital elements in higher education teaching. *Education and Information Technologies*, 28, 15571–15597 <https://doi.org/10.1007/s10639-023-11798-2>.

The Influence of Adolf von Clauson-Kaas on the Development of the Subject of Craft in Estonia

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Abstract: Craft has been included as a general development subject in the curriculum of Estonian general education schools since 1894. In this work, the aim was to analyse the influence of Danish pedagogue Adolf von Clauson-Kaas on the development of craft as a school subject in Estonia. The main method used in this study was historical research through documentary analysis. Particular attention was paid to Clauson-Kaas's views on the role of craft in children's general development. Clauson-Kaas's views were also compared with the progressive pedagogical ideas that came to Estonia from other parts of the world in the nineteenth century, including craft becoming a subject and awareness of the educational importance of craft. Clauson-Kaas repeatedly visited Estonia in 1878 to introduce his ideas and organise courses for local elementary school teachers, which received wide press attention. As a result of his visits, an Estonian association was formed to promote crafts in the city and in the countryside (Verein zur Förderung des Hausfleisses in Stadt und Land). Craft was taught in 1881 at two seminars in Tartu and in 35 country schools. From the point of view of the development of Estonian education in the nineteenth century, Clauson-Kaas's primary contribution was the introduction of craft as a subject.

Keywords: Adolf von Clauson-Kaas, compulsory school in Estonia, craft education

Introduction

In the nineteenth century, the present territory of Estonia was divided into the governorates of Estonia and Livonia, which were a part of the Russian Empire, as was Finland. Serfdom was abolished in 1861 throughout the state, which lessened the influence of Baltic German barons over peasants. After the shock of the Crimean War, Alexander the Second tried to reform Russia by using more Western patterns; this in turn enabled the development of industrial enterprises and railways and affected education as well (Royle, 2000).

The first known data on the teaching of craft in an Estonian public school date back to 1804, when the provost of Kanepi, Johann Philipp von Roth, founded a new type of parish school where the children were taught basket weaving, broom making, etc., in addition to general subjects (Hirvlaane, 2000). In December of 1811, the Kanepi Handicraft School (Armen- und Industrieschule) for impoverished girls opened through the private initiative of von Roth. At the school, girls aged 11–14 received lessons in reading, religious education, religious songs, craft, and housework over the course of three years (Hirvlaane, 2004). The expenses incurred for the maintenance of both educational institutions were largely covered by the revenues from the sale of student handicrafts (Pöld, 1933). During that period, teaching in the subject of craft was organised under the influence of Pestalozzi's ideas (Sild, 1902).

During the 1870s compulsory education was introduced for Estonian peasants. With the education laws of 1874, 1876, and 1878, a unified curriculum and programme for public schools was introduced throughout Estonia (Andresen, 1985). In 1874, a unified study plan and programme was established across the governorate based on the "Liivimaa Lutheri usu Maakoolide õpetuse plaanid" (Teaching Plans for Rural Schools of the Lutheran Faith in Livonia). Geography was included as a compulsory subject in addition to religious education, the native tongue, mathematics, and singing, and history and Russian became recommended subjects. Gymnastics was introduced to boys and handicraft (namely, sewing and knitting) to girls (Andresen, 1974). In Northern Estonia, i.e., the Estonian governorate, a similar education programme was introduced in 1878 (Koolipidamise Seadus Eestimaa Evangeliumi Luteruse usu maakoolidele, 1878). However, there were no specific regulations for the teaching of handicrafts (Andresen, 1974). The subject was not mandatory in school, and no specific formal subject programme was required. According to the law of 1876, craftsmen without pedagogical qualifications

were allowed to work as teachers in educational institutions (Andresen, 1985). The goal was not the children's multifaceted development but rather the teaching of specific skills needed for adult life.

Craft has been included as a general development subject in the curriculum of Estonian general education schools since 1894. More precisely, on March 6, 1894, the law О введении ручного труда в число предметов преподавания [About the inclusion of craft in the subject of teaching] (Tsirkuljarõ po Rižskomu utšebnomu okrugu za 1894 g, 1894) was issued in Russia. The justification for the law highlighted the positive effect of the subject of craft on child development but only when specific educational goals are set and when it is taught with didactically correct principles in mind.

When speaking of the development of culture and education in nineteenth-century Estonia, one must keep in mind the multilateral influences due to Estonia's geographic position: on the one hand, the influences of Western Europe and Scandinavia and, on the other, Tsarist Russia, which Estonia was part of in the nineteenth century. In the same way, ideas about teaching craft also reached Estonia via different routes.

Methodology

This study focuses primarily on the influence of Scandinavia, more precisely on the activities of the Danish pedagogue A. von Clauson-Kaas. The aim of this study was to analyse the influence of Clauson-Kaas on the development of craft as a school subject in Estonia. The research question was: what was the influence of Adolf von Clauson-Kaas on the development of the subject of craft in Estonia at the end of the nineteenth century?

The main method used in this study was historical research, which in the context of educational research, can show how and why educational theories and practises developed (Cohen et al., 2007). Hill and Kerber (1967) have categorised the values of historical research, one of which is to shed light on present and future trends. That value has been used in the context of this study. In our research, we used documentary analysis of historical materials, such as archive documents, newspaper analyses, and other historical data. The document repositories of the Estonian Historical Archive, where the reports of inspectors of public schools from the nineteenth century have been collected, were used as direct sources (Eesti rahvakoolide inspektor (1846–1904) [Inspector of Estonian Public Schools] Eesti õigeusu talurahvakoolide inspektor (1873–1902) [Inspector of Estonian Orthodox Peasant Schools]). Since each school essentially had its own inspector/supervisor to whom current reports had to be submitted, the data contained in these documents can be considered sufficiently reliable.

Newspaper articles had to be treated as secondary sources in this study because secondary sources are those that do not bear a direct physical relationship to the event being studied. A secondary source would thus be one in which the person describing the event was not actually present but obtained descriptions from another person or source (Cohen et al., 2007), as is true of the newspaper articles used for this study. In this study, newspapers published in Estonia in 1876–1879 were processed, and the keywords searched were woodwork, craft, and Clauson-Kaas. A total of 16 articles were found within this period, the contents of which were analysed using the qualitative content analysis method. In addition, archival documents of two funds were worked through to map the changes in educational life in the given period, and printed works published by Estonian educational and social figures who lived in the researched period were also studied.

Document Materials

A. von Clauson-Kaas's Thoughts on Craft as a School Subject

The Finnish educationist Uno Cygnaeus can be considered the founder of pedagogical craft as a subject. His ideas were followed in many countries, and his biggest influence on the development of craft was in the Nordic countries, among them the Swedish educationist Otto Salomon and Clauson-Kaas. It was Cygnaeus who introduced the term "slöjd", which became common in Nordic schools (Kantola, 1997). Cygnaeus wanted to add an educational perspective to the teaching of craft, wherein the acquired knowledge could be applied to practical work. In his opinion, craft should be a subject equal to others in public schools, and it should be taught not just for the purpose of acquiring a profession but also because of its importance in developing and nurturing qualities (Kantola, 1997).

In the period when the reform of public schools was carried out in Finland, on Cygnaeus's initiative, the Dane Clauson-Kaas began to promote his teachings on a broader scale, and the dissemination of the ideas of teaching craft also gained momentum in Estonia. By the end of the 1870s, a craft movement was born in Livonia, the centre of which was Tartu. The movement was strongly influenced by Cygnaeus but especially by impulses originating from Denmark.

The press noticed the introduction of Clauson-Kaas's "work school" in February of 1876 in Germany and that the principles of this craft school seemed progressive. Then, in December of 1876, two significant articles, translated from the German newspaper *Balti Nädalakiri*, were published in the newspaper *Eesti Postimees* (Kuus, 1876a, 1876b) and introduced Estonian readers to the principles of Kaas's work school and its benefits for the education system.

The following were highlighted in these articles as important (Kuus, 1876a, 1876b):

- Craft is a meaningful of spending free time. According to Clauson-Kaas, craft is an important part of everyone's daily activities, regardless of age. If, up until that point, craft had been mainly considered a women's activity, then attention should be paid to finding and learning activities suitable for men.
- Doing crafts plays an important part in a child's moral upbringing; they will develop a love for work, the need to experience joy in work, and a desire to do good for their loved ones, which add an ethical aspect to the activity.
- Craft contributes to the development of the following personality traits in children: reasonable planning of work, neatness and cleanliness, a frugal attitude to materials, consideration of others, and economic thinking.
- Solving tasks related to craft also contributes to the development of thinking and, relatedly, supports what is learned in other subjects.
- Work school helps one make choices about one's future career and acquire the necessary skills beforehand.

The theory of work school (*Arbeitschule*), which began in Germany at the end of the nineteenth century, was also referred to by Clauson-Kaas in his presentation at the German Society in 1876, which was in turn quoted by a newspaper. Clauson-Kaas claimed that work school can and should be intertwined with a general education school since a well-organised work education supports learning and facilitates the understanding of other subjects (Kuus, 1876a). In his mind, it was an inexcusable mistake if schools only share knowledge but the 'hands are left without practice' (Kuus, 1876b). He highlighted the general development aspects of craft, noting that in the organisation of each piece of work, one must also teach, show, and pay attention to the development of thinking, sense of proportion, and drawing skills, all of which are also useful when studying other subjects (Kuus, 1876b).

Clauson-Kaas's methodical guidelines for the teaching of craft (Kuus, 1876b) were also presented:

- General working methods should be taught and the hand and eye given practice rather than focusing on the skill of one specific master craftsman.
- Tools should be age appropriate.
- The use of tools should follow the principle of simpler to more complex (for example, at the beginning, the use of a planer should be taught, then the use of a jigsaw, knife, and other carving tools).
- Work methods and the use of tools must be demonstrated.
- 2–3 hours a week should suffice for teaching.

These thoughts presented by Clauson-Kaas made a great impact in Estonia. At the meeting of the Imperial Livonia's economical society in January 1877, members discussed the suitability of Clauson-Kaas's idea of craft as a school subject for boys' parish schools in Estonia (Stryk, 1877). In the December 14 edition of the publication *Eesti Postimees*, or *Nädalaleht*, Gustav von Stryk, the secretary of the Imperial Livonian Communal and Economic Society, announced that, similar to every other year, the society's public meetings would take place in Tartu on January 9 (Monday) and 10 (Tuesday), 1878. In addition to other presentations, society members also listened to an overview of Clauson-Kaas's system of conjoining "work school" with "learning school" and possible ways of implementing that system in Estonian public schools. It was decided at the society's meeting that Clauson-Kaas himself

should explain the “work school” system, so they decided to invite him from to come Copenhagen to Estonia for the occasion (Stryk, 1877).

The Spread of A. von Clauson-Kaas’s Ideas in Estonia

The year 1878 was significant for the spread of ideas related to teaching craft in Estonia. That year, Carl Robert Jakobson (1841–1882), a well-known figure of the Estonian national movement, gave his so-called “three patriotic speeches.” C. R. Jakobson, a publicist and writer as well as the author of many school textbooks, tried to bring Estonians up to speed with new pedagogical trends that were gaining ground in other parts of the world. In 1876, he saw pupils work exhibited in Finland. He pointed out that Finnish schools developed children practically as well as mentally (Jakobson, 1959). Jakobson asked why such teachings had not been introduced to Estonian public schools and answered his own question by stating that there were no qualified teachers in Estonia. He suggested that municipalities send one educated woman or a young teacher to attend a preparatory teacher training school in Finland for a year at their own expense. In addition to the fact that the acquired skills would enable young people to make money with crafts made during long wintry evenings, such an education would also develop a person mentally; they would acquire the skills to keep neat and clean, making their lives better overall (Jakobson, 1882).

Also in the year 1878, as mentioned above, Clauson-Kaas was in Tartu in January, introducing craft education to teachers according to his own teaching system. Newspapers commented that Clauson-Kaas’s explanations and justifications were clear, and should they be accepted and acted upon, the public schools in towns and rural areas would greatly benefit from them. It was pointed out that the education and teaching of children had, for the most part, remained one-sided, as only the child’s mind was educated but the hands remained untrained. It was noted that Clauson-Kaas showed that, in addition to general education, schools should provide education in craft without thereby harming the quality of general education. He had taught children at schools to do straw work, basket weaving, book binding, and carpentry and had seen that both children and older people happily agreed with his methods (Jannsen, 1878b).

A. Stryk, the lord of Pala manor, organised a new society, fuelled by Clauson-Kaas’s ideas – “The Society for Developing Home Craft in the Countryside and in the City“ (Verein für Förderung des Hausfleises in Stadt und Land) (Jannsen, 1878a). The society’s primary goal became the preparation of future craft education teachers. For this purpose, Clauson-Kaas was once again invited to Tartu in September 1878, where he held a course for teachers and women who might start teaching boys and girls in the future. The course was organised by Stryk (Jannsen, 1878b).

Courses for Craft Teachers

The courses began on September 5, 1878, in Tartu and lasted for six weeks. Initially, 41 men and 17 women were supposed to participate in the courses, but finally 44 men and 18 women took part in the courses (Jannsen, 1878c, 1878d, 1878e; Kuusing, 1971). The courses were held in German and cost 25 rubles per participant (Jakobson, 1878a). In addition to courses taught by Clauson-Kaas, woodwork was taught by Mr. Hansen from Denmark, and handicraft was taught by Mrs. Elise Baranius, who had previously attended craft courses in Copenhagen for this purpose. Baranius had started teaching craft for women the previous autumn in Tartu; she had opened her own school for handicraft, where she taught German, arithmetic, and calligraphy in addition to sewing and women’s handicraft. The school for handicraft operated in Tartu until 1883 (Sirk, 1983).

The course attendees were divided into five groups (Jannsen, 1878c). Men were taught straw work, broom work, basket weaving, cardboard work, wood cutting work, carving, polishing, and basic sawing. Women’s courses excluded carpentry, carving, and coarse straw work (Pöld, 1933), and handicraft was taught instead. But Baranius found that not all handicrafts practised by Danish women should be included in the teaching of women’s handicrafts (Kuusing, 1971).

Many schoolmasters also participated in the course. Through the teachers who had received this training, craft was able to reach some Estonian and Latvian public schools, and craft society reports noted that “thankworthy work has already been done” in many Estonian schools (Eesti rahvakoolide inspektor, 1846–1904). Exhibitions of works created during the course were organised to introduce the possibilities

of craft education and the accompanying aesthetic effect and sense of satisfaction to a broader audience (Jakobson, 1878b).

In 1881, the newspaper *Eesti Postimees* noted that from May 25, 11 teachers in Tartu studied according to Clauson-Kaas's method of teaching, but this time, the instructor was Adolf von Hoffmann (Grenzstein, 1881). Adolf von Hoffmann (1840–1903), Tartu town councillor, social figure, craft teacher, and head of the Livonian Society for the Promotion of Home Crafts from 1887–1892, was among the educational figures through whom the ideas of craft education spread in the Estonian areas of the Livonian governorate. The course lasted six weeks.

It was noted in the same article that since craft was a new phenomenon in school, people tended to doubt its necessity (Grenzstein, 1881). The author of the article argued that if the school government and general population supported this new undertaking, it could be beneficial for both the people and the land and could not possibly do any harm. The press supported the idea of craft-related education, but there were concerns that it might affect the main schoolwork. There were articles both for and against the new subject in Estonian daily newspapers such as *Eesti Postimees*, *Postimees*, and *Olevik*, among others (Sirk, 1983).

In the 1880s, influenced by Clauson-Kaas's explanatory work and the courses held in Tartu, the goals and content of craft as a subject changed considerably, and its teaching expanded. According to the Livonian Society for the Promotion of Home Crafts' 1884 report, craft was taught in the governorate in at least 14 parish schools and 10 municipal schools (Tallinna Söber, 1885).

In the 1880s, craft-related education took place in various forms (Tallinna Söber, 1885; *Eesti õigeusu talurahvakoolide inspektor*, 1873–1902; Pullat, 1969; *Reglement für die Fennernsche Taubstumm-Anstalt*, 1896):

- Craft workshops in parish schools (schools of Räpina, Kanepi and Kursi).
- A craft workshop, a so-called practical class (Kuressaare Exemplary Parish School).
- Craft classes (Tallinn's School for the Children of Sailors, Tartu Town School). Carpentry, turning, blacksmithing, locksmithing, and binding were taught.
- A craft class for the residents of the Estonian Blind Children's Asylum. Braiding and brush-making were taught.
- A crafts department at Vändra School for the Deaf-Mute. Wood carving, bookbinding, shoemaking, and carpentry were taught.

As illustrated above, craft as a subject took root in only a few public schools. Thus, newspaper writers argued that ideas related to craft education would probably reach people better through special schools created for this purpose. The formation of understandings about the goals of craft education and vocational training and their interrelationships took time, but the need for craft education was felt.

Discussion and Conclusion

From the point of view of the development of Estonian education in the nineteenth century, Clauson-Kaas's primary contribution was the introduction of craft as a subject. His ideas were mainly introduced in the press of the time (Janssen, 1878a, 1878b, 1878c; Kuus, 1876a, 1876b; Stryk, 1877).

The openness of Estonian educationists to craft education is illustrated by the fact that, having become acquainted with Clauson-Kaas's ideas, they invited him to Tartu, Estonia, where he gave an introductory lecture and later supervised courses on the teaching of craft (Janssen, 1878a, 1878b, 1878c). According to the 1881 edition of the newspaper *Eesti Postimees*, 11 schoolmasters studied according to Clauson-Kaas's teaching methods for six weeks under the instruction of Adolf von Hoffmann (Grenzstein, 1881). Von Hoffmann was one of the educators who enabled the spread of the ideas of craft education in the Estonian territories of the governorate of Livonia.

Clauson-Kaas's teaching of craft was one of the first instances of a systematic approach to teaching craft, which emphasised the generally developmental aspect of craft for children and recognised craft's motivational impact on learning other subjects. Students enjoyed craft, and it was used as a method of external motivation.

As a result of the teacher training courses, craft was taught in 1881 at two of Tartu's seminars and in 35 country schools. The total number of country schools in Estonia in those years was about 1,148. Thus, the impact of the courses was relatively small but significant. Since craft was a relatively new subject in school, people tended to doubt its essentiality: "Some applauded it, others criticized it, some were somewhere in between." (Grenzstein, 1881) There were many articles published in various Estonian daily newspapers both for and against the new subject.

The teaching of work methods, work culture, and sustainable consumption of materials was held in high esteem even at that time. In addition, the pre-vocational aspect of craft was deemed important since it helped students choose a vocation after finishing school.

As previously noted, Estonia was part of the Russian Empire in the nineteenth century, which is why the empire's laws were enforced in Estonian territories too. Although the teaching of craft lay dormant for nearly a decade, a law was passed on March 6, 1894, through which craft was introduced as an official school subject. In its justification, the positive impact on a child's development was mentioned but only if clear educational goals had been set in the teaching of the subject and if it was taught by following didactically correct principles.



Bibliography

1. Andresen, L. (1974). Eesti rahvakoolid 19. sajandil: Kuni 1880-ndate aastate koolireformini [Estonian public schools in the 19th century: Until the school reform of the 1880s]. Valgus.
2. Andresen, L. (1985). Eesti kooli vanem ajalugu [Older History of the Estonian School]. Valgus.
3. Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). Routledge.
4. Eesti rahvakoolide inspektor [Inspector of Estonian Public Schools]. (1846–1904). Eesti Ajalooarhiiv, fond 389, nimistu 1, säilitusühik 22:91.
5. Eesti õigeusu talurahvakoolide inspektor [Inspector of Estonian Orthodox Peasant Schools]. (1873–1902). Eesti Ajalooarhiiv, fond 389, nimistu 1, säilitusühik 22:93.
6. Grenzstein, A. (1881, June 17). Kool [School]. Eesti Postimees, (24), 95. <https://dea.digar.ee/article/eestipostimees/1881/06/17/12>
7. Hill, J. E., & Kerber, A. (1967). Models, methods, and analytical procedures in educational research. Wayne State University Press.
8. Hirvlaane, M. (2000). Johann Philipp von Roth. OÜ Vali Press.
9. Hirvlaane, M. (2004). Kanepi kool läbi kahe sajandi [Kanepi school through two centuries]. OÜ Vali Press.
10. Jakobson, C. R. (1878a, March 18). Käsitöö koolides [Crafts in schools]. Sakala, (3), <https://dea.digar.ee/article/sakalaew/1878/03/18/2>
11. Jakobson, C. R. (1878b, November 11). Omalt maalt. Tartust [From my own country. From Tartu]. Sakala, (40/41). <https://dea.digar.ee/article/sakalaew/1878/11/11/1>
12. Jakobson, C. R. (1959). Soome maast ja rahvast üleüldse [About the land and people of Finland in general]. Valitud teosed I. ERK.
13. Jakobson, C. R. (1882). Kolm isamaa kõnet [Three patriotic speeches]. Tartus "Wanemuise" seltsis pidanud C. R. Jakobson. Wilhelm Just.
14. Jannsen, J. V. (1878a, February 1). Omalt maalt. Tartust [From my own country. From Tartu]. Eesti Postimees Ehk Näddalaleht, (5), 28. <https://dea.digar.ee/article/eestipostimees/1878/02/01/4>
15. Jannsen, J. V. (1878b, March 1). Käsitöö-kool Klausson-Kaasi viisi järele [Craft school according to the Klausson-Kaas method]. Eesti Postimehe Lisaleht, (9), 57. <https://dea.digar.ee/cgi-bin/dea?a=d&d=eestiplisa18780301.1.1>
16. Jannsen, J. V. (1878c, August 9). Uuemad sõnumid. Tartust [Newer messages. From Tartu]. Eesti Postimees Ehk Näddalaleht, (32), 197 <https://dea.digar.ee/article/eestipostimees/1878/08/09/5>
17. Jannsen, J. V. (1878d, September 13). Omalt maalt. Tartust [From my own country. From Tartu]. Eesti Postimees Ehk Näddalaleht, (37), 226–227 <https://dea.digar.ee/article/eestipostimees/1878/09/13/4>
18. Jannsen, J. V. (1878e, September 23). Omalt maalt. Tartust [From my own country. From Tartu]. Sakala, (32). <https://dea.digar.ee/article/sakalaew/1878/09/23/5>

19. Kantola, J. (1997). Cygnaeuksen jäljillä käsityöopetuksesta teknologiseen kasvatukseen [In the footsteps of Cygnaeus, from craft education to technological education]. Jyväskylän Yliopisto.
20. Koolipidamise Seadus Eestimaa Evangeliumi Luteruse usu maakoolidele [Law on School Management for Rural Schools of the Evangelium Lutheran Faith in Estonia]. (1878).
21. Kuus, J. (1876a, December 8). Käe harjutamine Klausson-Kaasi viisi järgi I osa [Practicing the hand according to the Klausson-Kaas method, part I]. Eesti Postimehe Lisaleht, (49), 299. <https://dea.digar.ee/page/eestiplisa/1876/12/08/1>
22. Kuus, J. (1876b, December 15). Käe harjutamine Klausson-Kaas'i viisi järele II osa [Practicing the hand according to the Klausson-Kaas method, part II]. Eesti Postimehe Lisaleht, (50), 305–306. <https://dea.digar.ee/page/eestiplisa/1876/12/15/1>
23. Kuusing, J. (1971). Esimesed käsitööõpetajate kursused Tartus [The first craft teacher courses in Tartu]. In Rahvaharidus Eestis 19. sajandil. Konverentsi teesid (pp. 47–51). E. Vilde nim. Tallinna Pedagoogiline Instituut.
24. Nygaard, G. (1932). Jens Adolph Frederik Clauson-Kaas. In P. Engelstoft & S. Dahl (eds.), Dansk Biografisk Leksikon: A-Han (pp. 312–323). J. H. Schultz.
25. Nyrop, C. (1887). Jens Adolph Frederik Clauson-Kaas. In C. F. Bricka (ed.), Dansk Biografisk Lexikon (pp. 234–245). Gyldendal 1887.
26. Pöld, P. (1933). Eesti kooli ajalugu [History of the Estonian school]. Akadeemiline Kooperatiiv.
27. Pullat, R. (1969). Tallinna ajalugu. XIX sajandi 60-ndate aastate algusest 1965 aastani [History of Tallinn. From the beginning of the 1960s to 1965]. Eesti Raamat.
28. Reglement für die Fennernsche Taubstummen-Anstalt (nebst Aufnahme-Bedingungen), Bestätigt vom Direktorium des "Hephata"-Vereins am 30-ten Mai 1896 [Regulations for Fennernsche Deaf-mute Institution (including admission conditions), Confirmed by the Board of Directions of "Hephata" Association on May 30, 1896]. Eesti Ajalooarhiiv, fond 1215, nimistu 1, säilitusühik 84. Trükis (1896).
29. Royle, T. (2000). Crimea: The Great Crimean War, 1854–1856. Palgrave Macmillan.
30. Sild, O. (1902). Johann Philipp von Roth. Eesti Üliõpilaste Seltsi album VII, 139–166.
31. Sirk, V. (1983). Kutseharidus Eestis 19. sajandi algusest 1917 aastani [Vocational education in Estonia from the beginning of the 19th century to 1917]. Valgus.
32. Stryk, G. (1877, December 14). Omalt maalt. Tartust [From my own country. From Tartu]. Eesti Postimees Ehk Näddalaleht, (50), 310–311. <https://dea.digar.ee/article/eestipostimees/1877/12/14/4>
33. Tallinna Sõber [Friend of Tallinn]. (1885, March 15). (11).
34. Tsirkuljarõ po Rižskomu utšebnomu okruguga za 1894 g [Circulars by Riga educational district for 1894]. Nr 6 (1894).

Personality Development in Diverse and Inclusive Environments

Exploring the Gap Between Pro-Environmental Beliefs and Behaviour Among Students

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Abstract: In the new century, it has become clear that humans cannot manage the planet in a predatory way, causing much damage and destruction to the environment and threatening their own health. In order to safeguard the future of people and the planet, all human activities, production and consumption must be subject to the principles of sustainability. However, knowledge of these issues is not always matched by consumer behaviour. In this light the aim of the study was to assess beliefs and behaviour regarding sustainable consumption and their interrelationships in a group of students and in this context, the desire to increase knowledge about sustainable consumption and opinions on how to disseminate this knowledge were considered. A cross-sectional survey was conducted on a sample of 146 voluntary students of the Faculty of Human Nutrition at Warsaw University of Life Sciences (Poland), using the CAWI survey method. The relationship between students' beliefs and behaviour was characterized by varying strengths, but for all statements, more positive beliefs were accompanied by more positive behaviour. The strongest correlations regarded drinking tap water and not buying bottled water, and paying attention to the local/domestic origin of purchased products. The weakest correlations, but also significant, were found for buying seasonal fruit and vegetables to limit the purchase of imported food, not using plastic bags when shopping and separating recyclable waste. The desire to learn more about sustainable consumption differentiated students' beliefs and behaviour, but there were more differences in behaviour. Social media was the most accepted method of disseminating knowledge, followed by an optional subject, while compulsory training as part of studies had the least supporters. The study found that, on average, good pro-environmental knowledge was less likely to translate into sustainable consumption behavior. It is therefore essential to undertake a range of awareness-raising and behavioural change motivation initiatives as part of a national campaign. Social media is a favourite communication tool for young people, but the problem of motivating young people to seek out and visit relevant websites remains.

Keywords: environment, sustainability, beliefs, behaviour, students, education

Introduction

The current epoch in the history of planet Earth has come to be known as the Anthropocene due to the negative changes on the planet caused by human activity, especially its unbridled determination to pursue economic growth. Our individual actions have global repercussions, and our consumption is directly linked to the use of resources and the destruction of nature and its ecosystems (Mónica et al., 2020). The unrestrained consumption of natural resources has brought a huge extra load to the planet and destroyed the ecological environment. All inhabitants of the planet are experiencing global warming and climate change, biodiversity loss, water depletion and contamination, plastic pollution of the seas and oceans. The report "Renewable and Non-Renewable Resources" concluded that natural resources are depleting faster than they are being produced or renewed by nature (Conserve Energy Future.com).

The global food system has become the largest emitter of greenhouse gases, accounting for 34% of total anthropogenic emissions (Crippa et al., 2021), especially due to the monoculture cultivation of crops for food and feed, the industrial rearing of animals for meat, milk and eggs, and land use change (deforestation and peatland degradation). The price of progress in food supply is an epidemic of diet-related diseases and near annihilation of the environment, including climate catastrophes. Global food systems have contributed to the crossing of several planetary boundaries that define a safe space for humanity in the Earth system (Campbell et al., 2017). However, food systems have the potential to nurture human health and support a sustainable environment, but currently threaten both (Willett et al., 2019). Dietary changes are potentially the quickest action to implement and can be the foundation for reducing food waste and changing agricultural production (WWF, 2020). Transitioning to plant-based diets has the potential to reduce diet-related land use by 76%, diet-related greenhouse gas emissions by

49%, eutrophication by 49%, and green and blue water use by 21% and 14%, respectively, whilst garnering substantial health co-benefits (Gibbs & Cappuccio, 2022).

Meanwhile, it has been known for at least half a century that relentless global economic growth has its limits. This was warned of by members of the Club of Rome in their forecast "The Limits to Growth", published in 1972, concerning the environmental (planetary) limits to further dynamic economic growth in the face of also dynamic world population growth (Meadows et al., 1972). In 1987, the World Commission on Environment and Development report "Our Common Future" (also known as the Brundtland Report after the commission's chairwoman) set out the first agenda for changing the world order towards long-term sustainable development. This was the name given to development 'that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987). The third turning point was the adoption by the UN (2015) of the document "Transforming our world: The 2030 Agenda for Sustainable Development", which formulated 17 Sustainable Development Goals. Goal 12 addresses the responsible production and consumption of goods, emphasising the need to change consumption patterns to sustainable ones. It was only the magnitude and social, financial and economic impact of the covid-19 pandemic that brought about some changes in people's attitudes towards how they manage the planet's resources.

People need to rethink their behaviour patterns of consumption and understand how they acquire and dispose of resources. Awareness of the planet's limitations makes individuals more vulnerable to environmental variability, which requires from them a change in 'take-make-waste' approaches (Peterson, 2021). Shaping the pro-environmental behaviour of today's consumers is now a priority and ambitious challenge that needs to be addressed in order to ensure harmony and sustainability of the whole civilisation (Tarapata, 2015), with a view to the lives of future generations. The current turbulent environment places considerable demands on all society groups due to the need to adapt to sudden and unexpected changes in the established climate. Therefore, innovative research and solutions are needed, and the education system at all levels must respond to emerging challenges. This can be achieved in a knowledge-based society. The quality of the education system and its ability to respond to challenges is the cornerstone of sustainable development (Tomsik et al., 2023).

With this in mind, it was decided to explore the gap between beliefs and behaviour regarding sustainable consumption in a selected group of students.

Methodology

The aim of the study was to assess the different beliefs and behaviour regarding sustainable consumption, their interrelationships in a specific group of students, and to find out whether the declared willingness to expand knowledge on this topic influences the beliefs and behaviour analysed. The aim was also to find out students' opinions on different methods of disseminating knowledge about sustainable consumption.

The cross-sectional study was conducted in 2023-24 among students of the Faculty of Human Nutrition at Warsaw University of Life Sciences, Poland, using the CAWI (Computer Assisted Web Interview) survey method. Participation in the study was voluntary. The authors invited participants to the survey and upon acceptance of the invitation, they provided informed consent to participate. The questionnaire was completed by 146 students.

Questionnaire

The questionnaire included statements about selected aspects related to sustainable consumption. Each aspect was asked about twice: first the beliefs on each statement were asked (e.g., "Plastic bottles should be thrown away after unscrewing the cap and crushing the bottle") and then the behaviour regarding the statements. (e.g. "I throw plastic bottles away after unscrewing the cap and crushing the bottle"). All the issues included in the questions are shown in Table 1. For each statement, respondents marked a response on a 5-point scale: 1 – I do not agree; 2 – I rather agree; 3 – neither agree nor disagree; 4 – I rather agree; 5 – I agree.

In addition, students were asked if they would like to expand their knowledge of sustainable consumption. Responses were given on a 5-point scale: 1 – no, 2 – rather not, 3 – no opinion; 4 – rather yes, 5 –yes. Students also gave their opinions on the different methods of imparting this knowledge

using a 5-point scale: 1 – useless, 2 – rather useless, 3 – no opinion; 4 – rather useful, and 5 – very useful.

Statistical analysis

Frequency analysis and cross-tabulations were performed and means and standard deviations were calculated. Student's t-test was used to compare mean values, with an accepted significance level of $p < 0.05$. The Pearson correlation coefficient was used to assess the relationship between beliefs and behaviors relating to sustainable consumption. Statistical analysis was conducted using IBM SPSS Statistics for Windows, version 27.0 (IBM Corp, Armonk, NY, USA).

Results and Discussion

The sample consisted of 146 young adults, including 84.2% women and 15.8% men. The respondents were 18-34 years old. The mean age was 21.5 years, standard deviation 2.71. Most respondents (66.4%) lived in large cities (up to 100,000 inhabitants), 14.4% - in towns (below 100,000 inhabitants), and 19.2% in rural areas.

Table 1 illustrates opinions on selected beliefs and behaviors relating to sustainable consumption and their interrelationships in the study group. Respondents' opinions expressing beliefs were in the range of 3.5 - 4.7 mean value, while for behaviors they were in the range of 3.2 - 4.6.

The mean value describing the behavior was greater than the corresponding beliefs only for two statements, namely turning off the light after leaving the room for more than 5 minutes and drinking tap water and not buying bottled water. In contrast, there were no differences between beliefs and behaviors regarding discarding bottles after unscrewing the cap and crushing it, and buying seasonal fruit and vegetables to limit the purchase of imported food in this way. For the other statements, beliefs obtained higher mean values than the corresponding behaviors, with the largest difference noted for the statement related to the purchase of cosmetics with the "ozone-friendly" label. These differences were confirmed in the percentages of "totally agree" responses except for two statements regarding buying seasonal vegetables and fruits to limit the purchase of imported food (fewer such responses for behaviors) and knowing the product features and being interested in the whole life cycle of the product (same number of responses) (Table 1).

The relationship between beliefs and behaviors was characterized by varying strengths, but the correlations were always positive, that is, more positive beliefs were accompanied by more positive behaviors (Table 1). The strongest correlations were found for drinking tap water and not buying bottled water, and paying attention when shopping to the local/domestic origin of the product (correlation coefficients higher than 0.5). In contrast, the weakest correlations, but also statistically significant, were for buying seasonal vegetables and fruits and limiting the purchase of imported food; not using plastic bags when shopping at the supermarket; and separating recyclable waste (correlation coefficients lower than 0.3) (Table 1).

The plastic-reduction behaviour analysed in the study (not buying bottled water, going shopping with own textile bag) are of huge importance for improving the environment. Plastic has become a constant element in our lives as plastics are the materials in the largest quantities ever produced by man. Plastics production ramped up from 1.5 million tonnes in 1950 to more than 500 million tonnes in 2020 (Plastic Europe, 2016; Iberdrola, 2024). By 2015, 8,300 million tonnes of virgin plastics were produced, about 6,300 million tonnes of plastic waste were generated, of which around 9% was recycled, 12% was incinerated (polluting the air with toxic gases), and the remaining 79% accumulated in landfills or the environment (Geyer et al., 2017). According to Statista (2024) the production of polyethylene terephthalate (PET) bottles worldwide increased from 300 billion in 2004 to 485 billion in 2016, and it is forecasted that in 2021, some 583.3 billion of these plastic bottles will be produced. Reducing the consumption of plastics therefore requires not only a change in habits, but also a change of mindset. The favourable results of our survey on drinking tap water and not buying bottled water indicate a growing awareness of the need to reduce plastic consumption. This may be partly due to the promotion of a sustainable food consumption model. Sustainable food choices give an opportunity to combine sustainability messages with public health messages (Temme et al, 2015; Head et al., 2017). They come down to the rules that are largely consistent with dietary guidelines for the population, but also include

the rules directly focusing on environmental aspects of sustainability, for example 'buy food that meets a credible certified standard', 'buy local, seasonal and environmentally friendly food', choose 'sustainable farming with short transport routes and seasonal products', 'drink tap water' (Rejman et al., 2019). It must be also the result of the national publicity and educational programmes implemented in the schools that the students surveyed were able to attend. For example, in Warsaw, as part of the 'Warsaw tap water' educational programme, more than 30 springs with tap water have been installed in public places such as museums, the airport and squares. Every primary and secondary school in Warsaw can apply to the 'Water at School' project and have a spring installed free of charge (a programme funded by the city council and the city's water and sewage company). By September 2022, the devices had been installed in 239 schools (Żródełka ..., 2022).

However, it should be remembered that consumer behaviour is determined by many factors of different nature, and knowledge is only one of them. Pro-environmental awareness is the basis for green consumption, but people with pro-environmental awareness do not choose green consumption for sure, as consumers' perceived cost is an important obstacle to green consumption (Shen and Wang, 2022).

Table 1

Selected beliefs and behaviors representing sustainable consumption and their interrelationships in the study group

Statements describing sustainable consumption	Beliefs	Behaviors	Beliefs	Behaviors	Bivariate correlations
	Mean; SD		Agree (%)		
When leaving the room for more than 5 minutes, the lights should be turned off/ I turn them off	4.4; 0.95	4.5; 0.87	65.1	67.8	0.420**
One should drink/I drink/ tap water and not buy/I do not buy/ bottled water	3.6; 1.25	3.8; 1.46	26.7	47.3	0.562**
Plastic bottles should be thrown away/ I throw them away/ after unscrewing the cap and crushing the bottle	4.6; 0.69	4.6; 0.82	70.5	69.9	0.374**
It is necessary to buy/ I try to buy seasonal vegetables and fruits to minimize the purchase of imported foods	4.1; 1.08	4.1; 1.06	45.9	43.8	0.278**
Dishes should be washed/I wash them/ in a water bath, not under running water	3.6; 1.24	3.2; 1.24	28.8	21.9	0.443**
Used batteries should be brought back/I bring them/ to a special selective waste collection point or they should be thrown away/I throw them in special containers	4.8; 0.59	4.4; 1.02	82.9	65.1	0.339**
When shopping in the supermarket, do not use/ I do not use/ plastic bags but use your reusable bag/basket	4.7; 0.66	4.4; 0.90	80.8	68.5	0.210**
When buying products, you should/ I pay attention/ to whether they are from local/domestic production	3.9; 0.96	3.5; 1.24	26.0	21.2	0.576**
Consumers should be familiar/I am familiar/ with the product's performance features, but should also be interested/I am interested/ in the entire product life cycle	3.5; 1.18	3.3; 1.33	19.9	19.9	0.494**
When buying cosmetics, you should choose/I choose/ those that are labeled "ozone-friendly"	3.8; 1.09	3.1; 1.40	30.8	19.9	0.484**
It is necessary to segregate/ I segregate/ recyclable waste, i.e. glass, paper, plastics and metals, and vegetable organic waste	4.7; 0.60	4.5; 0.75	76.7	61.0	0.295**
It is necessary to think /I think/ about the amount of purchased products to limit them to those needed	4.6; 0.67	4.3; 0.90	65.1	47.3	0.424**

** Correlation is significant at p=0.01

Respondents' declared willingness to learn more about sustainable consumption differentiated their views and behaviors, with more differences noted in behaviors than views (Table 2).

Table 2

Selected views and behaviors representing sustainable consumption according to the declared willingness to expand their knowledge of sustainable consumption

Statements describing sustainable consumption	Willingness to expand the knowledge of sustainable consumption			
	1,2,3*	4,5*	1,2,3*	4,5*
	Views		Behaviors	
	Mean; SD		Mean; SD	
Consumers should be familiar/I am familiar with the product's performance features, but should also be interested/I am interested in the entire product life cycle.	3.1 ^a ; 1.15	3.7 ^a ; 1.15	2.8 ^b ; 1.37	3.5 ^b ; 1.27
It is necessary to buy/ I try to buy seasonal vegetables and fruits to minimize the purchase of imported foods.	3.9; 1.08	4.2; 1.06	3.8 ^b ; 1.28	4.3 ^b ; 0.93
When shopping in the supermarket, you do not use/ I do not use plastic bags but use a reusable bag or basket.	4.6; 0.78	4.8; 0.61	4.2 ^b ; 1.07	4.6 ^b ; 0.80
When leaving the room for more than 5 minutes, the lights should be turned off/ I turn them off.	4.4; 0.97	4.5; 0.95	4.2 ^b ; 1.21	4.6 ^b ; 0.68
When buying cosmetics, you should choose/I choose those that are labeled "ozone-friendly".	3.3 ^a ; 1.14	3.9 ^a ; 1.03	2.8; 1.39	3.2; 1.39
Plastic bottles should be thrown away / I throw them away after unscrewing the cap and crushing the bottle.	4.6; 0.71	4.6; 0.68	4.2 ^b ; 1.14	4.7 ^b ; 0.63
It is necessary to segregate / I segregate recyclable waste, i.e. glass, paper, plastics and metals, and vegetable organic waste.	4.7; 0.47	4.7; 0.64	4.3 ^b ; 0.85	4.6 ^b ; 0.70
It is necessary to think/I think about the amount of purchased products to limit them to those needed.	4.3 ^a ; 0.76	4.7 ^a ; 0.62	3.9 ^b ; 1.17	4.4 ^b ; 0.73

* willingness to expand knowledge of sustainable consumption: 1,2,3 - no, rather not, no opinion; 4,5 - rather yes, yes;

^{a,b} the means with the same superscripts differ statistically at $p < 0.05$; Student's t-test (t).

Those who declared willingness to expand their knowledge of sustainable consumption represented more correct views regarding familiarity with product features and consumer interest in the entire product life cycle; purchasing cosmetics with the "ozone friendly" label, and limiting the amount of products purchased to those needed. These individuals also represented significantly more behaviors revealing sustainable consumption.

The results show that having a certain level of knowledge is a motivation to explore it further. Mobilization attitude is discussed in the literature as a determinant of environmental awareness. Empirical studies provide strong evidence of the impact of mobilization attitudes on environmentally friendly practices. It has been shown, for example, that people living in closely connected neighbourhoods are more likely to buy chemical-free products, use less water and household energy, and drive less often (Macias & Williams, 2016). In a study on responsible energy consumption in the Polish households, mobilization attitudes and environmental awareness were shown to play a key role in explaining the relationship between environmentally unfriendly behaviour and energy efficiency behaviour (Jaciow et al., 2022).

The most accepted method of spreading knowledge on sustainable consumption issues was social media, followed by an optional course devoted to this issue during the study while the least accepted was

compulsory training as part of studies (Table 3). Those who declared a willingness to expand their knowledge of sustainable consumption expressed more positive opinions about all methods, except for the lack of differences in opinions regarding information posted on the University/Faculty's website.

Table 3

Opinions on methods of communicating knowledge about sustainable consumption according to the declared willingness to expand their knowledge of sustainable consumption

Methods of communicating knowledge about sustainable consumption	Total	Willingness to expand the knowledge of sustainable consumption	
		1,2,3*	4,5*
A compulsory course devoted to this issue during studies	3.6**;1.18	2.8a; 1.28	3.8a; 0.02
An optional course devoted to this issue during the studies	4.0; 1.05	3.4a; 1.11	4.2a; 0.91
A compulsory training as part of studies	3.4; 1.27	2.8a; 1.38	3.6a; 1.15
Events dedicated to this issue at the University/Faculty	3.9; 1.02	3.4a; 1.15	4.1a; 0.90
Information posted on the University/Faculty's website	3.9; 1.12	3.8; 1.15	4.0; 1.11
Information posted on the social media of the University/Faculty	4.2; 0.95	3.8a; 1.01	4.3a; 0.91

*Willingness to expand knowledge of sustainable consumption: 1,2,3 - no, rather not, no opinion; 4,5 - rather yes, yes; **opinions presented on a 5-point scale: 1 – useless, 2 – rather useless, 3 – no opinion; 4 – rather useful, 5 – very useful; ^a means with the same superscripts differ statistically at $p < 0.05$; Student's t-test (t)

Again, students declaring a desire to expand their knowledge appeared more motivated and open to different methods of acquiring that knowledge. In the study among students of the University of Debrecen (Hungary) health and environmentally conscious food consumption was found to be at a fairly low level. In conclusion, the authors stressed that improvement in this area is definitely desirable, and higher education can play a significant role in this area (Gáthy et al., 2022). People living in Scandinavian countries are more sensitive to sustainability issues, so Norwegian and Swedish students had a better understanding of the need to change behaviour to more sustainable ones compared to Latvian students. However many students from these countries understood the need for sustainability and believed that sustainability topics should be included in school curricula (Porozovs et al., 2017). In light of the many challenges facing today's generations, a growing number of authors indicate that education for sustainability should be implemented at all levels of education (Scalabrino et al., 2022; Cyrankowska et al., 2019) and support more integral approaches to knowledge dissemination (Wamsler, 2020), as they are equally important and complement each other (Cakula, 2021).

Conclusions

The study showed that knowledge regarding pro-environmental behaviour of the surveyed group of students translated to a lesser extent into such behaviour (on a 5-point scale, the means for knowledge ranged from 4.8 to 3.5, for behaviour from 4.6 to 3.1). Students with better knowledge of pro-environmental behaviour were also more likely to declare their willingness to extend this knowledge. Social media proved to be a preferred tool for communicating about sustainable consumption, but the problem of motivating young people to find and visit relevant websites remains. A number of initiatives are therefore needed to raise pro-environmental awareness and motivate behavioural change. It is certainly necessary to publicise the importance of the challenges facing communities and to reach out with sound scientific knowledge by all possible means. Action should be undertaken at all levels of school and university education, seminars, trainings and workshops should be conducted in cultural centres, libraries, workplaces etc. as part of national campaigns demonstrating the sense and need for



behavioural change towards sustainable behaviour, i.e. towards behaviour that is friendly to the planet and its inhabitants.

Bibliography

1. Cakula, S. (2021). Active Learning Methods for Sustainable Education Development. The Proceedings of the International Scientific Conference Rural Environment. Education. Personality (REEP), 14, 59-65. Latvia University of Life Sciences and Technologies. <https://doi.org/10.22616/REEP.2021.14.006>
2. Campbell, B.M., & Beare, D.J., & Bennett, E.M., & Hall-Spencer, J.M., & Ingram, J.S.I., ... & Shindell, D. (2017). Agriculture production as a major driver of the Earth system exceeding planetary boundaries. *Ecology and Society*, 22(4):8. <https://doi.org/10.5751/ES-09595-220408>
3. Conserve Energy Future.com. Renewable and Non-Renewable Resources. <https://www.conserve-energy-future.com/renewable-and-nonrenewable-resources.php>
4. Crippa, M., & Solazzo, E., & Guizzardi, D., & Monforti-Ferrario, F., & Tubiello, F.N., & Leip, A. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. *Nature Food*, 2, 198-209. <https://doi.org/10.1038/s43016-021-00225-9>
5. Cyrankowska, M., & Kostecka, J., & Mazur-Paczka, A. (2019). The Role of Relationships in Teaching Content Important for Sustainable Development. The Proceedings of the International Scientific Conference Rural Environment. Education. Personality (REEP), 12, 34-39. Latvia University of Life Sciences and Technologies. <https://doi.org/10.22616/REEP.2019.004>
6. Gáthy, A.B., & Kovácsné Soltész, A., & Szűcs I. (2022). Sustainable consumption – examining the environmental and health awareness of students at the University of Debrecen. *Cogent Business & Management*, 9, 1. <https://doi.org/10.1080/23311975.2022.2105572>
7. Geyer, R., & Jambeck, J.R., & Lavender, L.K. (2017). Production, use, and fate of all plastics ever made. *Science Advances*, 3, 7. <https://www.science.org/doi/10.1126/sciadv.1700782>
8. Gibbs, J., & Cappuccio, F.P. (2022). Plant-Based Dietary Patterns for Human and Planetary Health. *Nutrients*, 14(8), 1614. <https://doi.org/10.3390/nu14081614>
9. Head, J., & Atherton, E., & Dibb, S., & Oxborrow, C., & Salazar, E., & McCoy, D., & Walpole, B. (2017). A healthy and sustainable food future: policy recommendations to embed sustainability in the Eatwell Guide and wider UK food policy. Medact and Eating Better Alliance Policy Briefing. [https://www.eating-better.org/uploads/Documents/A%20Healthy%20Sustainable%20Food%20Future%20\(1\).pdf](https://www.eating-better.org/uploads/Documents/A%20Healthy%20Sustainable%20Food%20Future%20(1).pdf)
10. Iberdrola (2024). Reduce your plastic consumption and lessen its impact on the environment. <https://www.iberdrola.com/sustainability/how-to-reduce-plastic-use>
11. Jaciow, M., & Rudawska, E., & Sagan, A., & Tkaczyk, J., & Wolny, R. (2022). The Influence of Environmental Awareness on Responsible Energy Consumption - The Case of Households in Poland. *Energies*, 15, 5339. <https://doi.org/10.3390/en15155339>
12. Macias, T., & Williams, K. (2016). Know Your Neighbors, Save the Planet: Social Capital and the Widening Wedge of Pro-Environmental Outcomes. *Environment and Behavior*, 48(3), 391-420. <https://doi.org/10.1177/0013916514540458>
13. Meadows, D., & Meadows, D., & Randers, J., & Behrens, W.W. (1972). *The Limits to Growth*. A Potomac Associates Book.
14. Mónica, F., & Gisela, C., & Regadera, E., & Fernández, M.Y. (2020). Analysing the relationship between university students' ecological footprint and their connection with nature and pro-environmental attitude. *International Journal of Environment Research and Public Health*, 17:8826. <https://doi.org/10.3390/ijerph17238826>
15. Peterson, M. (2021). *Sustainable Marketing. A Holistic Approach*. SAGE Publications Ltd., London, UK.
16. Plastic Europe (2016). *World Plastics Production 1950 – 2015*. Plastics Europe Association of Plastics Manufacturers. <https://committee.iso.org/files/live/sites/tc61/files/The%20Plastic%20Industry%20Berlin%20Aug%202016%20-%20Copy.pdf>
17. Porozovs, J., & Valdemiers, A. (2017). The Opinion of Latvian and Norwegian Students about Education for Sustainable Development. In V. Dislere (Ed.), *The Proceedings of the International Scientific Conference Rural Environment. Education. Personality (REEP)*, 10, 134-141. Latvia University of Life Sciences and Technologies,

- https://llu.lv/conference/REEP/2017/Latvia-Univ-Agricult-REEP-2017_proceedings-134-141.pdf
18. Rejman, K., & Kaczorowska, J., & Halicka, E., & Laskowski, W. (2019). Do Europeans consider sustainability when making food choices? A survey of Polish city-dwellers. *Public Health Nutrition*, 22(7), 1330-1339. <https://doi.org/10.1017/S1368980019000326>
 19. Scalabrino, Ch., & Salvador, A.N., & Martínez, J.M.O. (2022). A theoretical framework to address education for sustainability for an earlier transition to a just, low carbon and circular economy. *Environmental Education Research*, 28:5, 735-766. <https://doi.org/10.1080/13504622.2022.2031899>
 20. Shen, M., & Wang J. (2022). The Impact of pro-environmental awareness components on green consumption behavior: The moderation effect of consumer perceived cost, policy incentives, and face culture. *Frontiers in Psychology*, 13, <https://doi.org/10.3389/fpsyg.2022.580823>
 21. Statista (2024). Production of polyethylene terephthalate bottles worldwide from 2004 to 2021. <https://www.statista.com/statistics/723191/production-of-polyethylene-terephthalate-bottles-worldwide/>
 22. Tarapata, J. (2015). Sustainable consumption and consumer ecological behavior. *Modern Management Systems*, 10(1), 51-59. <https://doi.org/10.37055/nsz/129351>
 23. Temme, E.H.M., & Bakker, H.M.E., & Seves, S.M., & Verkaik-Kloosterman, J., & Dekkers, A.L., & van Raaij, J.M.A., & Ocké, M.C. (2015). How may a shift towards a more sustainable food consumption pattern affect nutrient intakes of Dutch children? *Public Health Nutrition*, 18, 13, 2468-2478. <https://doi.org/10.1017/S1368980015002426>
 24. Tomsik, K., & Tomsikova, K., & Nemejc K., & Tomšík, K. (2023). Implementation of Innovative Teaching Topics in Vocational Agricultural Education. In N. Vronska (Ed.), *The Proceedings of the International Scientific Conference Rural Environment. Education. Personality (REEP)*, 16, 81-86. Latvia University of Life Sciences and Technologies. <https://doi.org/10.22616/REEP.2023.16.009>
 25. UN (2015). Transforming our world: The 2030 Agenda for Sustainable Development. <https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981>
 26. Wamsler, C. (2020). Education for sustainability: Fostering a more conscious society and transformation towards sustainability. *International Journal of Sustainability in Higher Education*, 21, 1, 112-130. <https://doi.org/10.1108/IJSHE-04-2019-0152>
 27. WCED (1987). Report of the World Commission on Environment and Development Our Common Future. WCED, United Nations. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
 28. Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., ... & Murray, C.J.L. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(10170), 447-492. [https://doi.org/10.1016/S0140-6736\(18\)31788-4](https://doi.org/10.1016/S0140-6736(18)31788-4)
 29. WWF (2020). Bending the Curve: The Restorative Power of Planet-Based Diets. Loken, B. et al. WWF, Gland, Switzerland <https://www.worldwildlife.org/publications/bending-the-curve-the-restorative-power-of-planet-based-diets>
 30. Źródełka z warszawską kranówką w szkołach [Springs with Warsaw tap water in schools]. (2022). <https://warszawa19115.pl/-/warszawa-promuje-wode-zrodelka-w-szkolach?inheritRedirect=true&redirect=%2Fweb%2Fguest%2F-%2Fzrodelka-z-warszawska-kranowka-w-instytucjach> (in Polish)

A Longitudinal Study on the Development of Moral Character in Early Adolescents: Intermediate Results

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Abstract: This paper presents the intermediate results of a 3-year longitudinal study on the development of moral character in early adolescents in Latvia. The study aimed to investigate pupils' understanding, engagement, experiences, and perceptions of their moral growth over a one-year period. In Spring 2023, 1000 pupils studying in Form 6 (mainly 12-13 years old) and Form 8 (mainly 14-15 years old) in 70 classrooms at 47 different schools in Latvia participated in the 2nd measurement of the study. The questionnaire used to collect data contained 35 scale items and 3 open answer items which captured four components of the moral growth process (i.e., understanding, purposefulness, moral crafting, and moral identity). Quantitative data were processed and analysed in MS Excel and SPSS using descriptive statistics: absolute values and percentage frequencies, central tendency indicators (arithmetic mean and mode), and dispersion indicators (standard deviation). The qualitative data (998 statements from Form 6 pupils and 559 statements from Form 8 pupils) were used to illustrate the main trends in participants' answers. The results revealed that, at the time of the 2nd measurement, Latvian pupils have a good understanding of moral growth processes and an increasing maturity in their decision of becoming better persons. However, their practical involvement in their own moral development and their emerging moral identity need to be supported in the family and at school. These findings are relevant for the development and strengthening of moral education in the Latvian education system, and can be useful for parents, teachers, and school leaders.

Keywords: early adolescence, moral character, moral education, moral growth, school education

Introduction

The pursuit of moral development is integral to leading a meaningful life. Eudaimonia has been identified as a primary focus to be emphasized in social science research over the next decade, in order to achieve what has been termed as “the well-being revolution” (Helliwell et al., 2023). Moral education is characterized by its richness and diversity, encompassing various theories, conceptions, developmental approaches, and models, sometimes complementing and at other times competing with each other. Examples include the Kohlbergian moral development theory (Kohlberg, 1984), moral affect theory (Noddings, 1984), Aristotelian virtue theory (Sanderse, 2015), neo-Aristotelian flourishing (Kristjánsson, 2019), non-Western perspectives (Metz, 2021), and personalist anthropology (Biesta, 2021).

The topic of moral education in schools is a current subject of debate involving policy makers, academics, and practitioners, as evidenced by discussions in recent literature (OECD, 2021; Stevenson, 2022; De Ruyter et al., 2022). In particular, the phase of early adolescence, spanning from 10 to 15 years of age, represents a critical period marked by heightened sensitivity to social influences, identity shaping, and the development of social-emotional skills (Hansen et al., 2021, preface). This stage also witnesses the emergence of moral identity (Kingsford et al., 2018).

Like numerous post-Soviet nations, within the past century Latvia has undergone significant shifts in moral value systems, transitioning from socialist ideals to a spectrum of approaches ranging from liberal and conservative ideologies to more recent inclinations toward new-liberal and human-inclusive approaches. In 2015, amendments to the Law of Education (Saeima, 1998) gave new life to moral education within the school system. Since 2017, a collaborative effort involving a team of researchers and education experts from the University of Latvia, and involving policymakers, in-service and pre-service teachers, pupils, and parents, has led to the undertaking of several research projects in moral education. In Spring 2022, this research team started to implement a longitudinal study on school pupils' moral growth (Fernández González & Surikova, 2022).

To address pupils' moral growth, this study relies on personalist anthropology, specifically drawing upon the theory of the relational self of virtue by Fernández González (2019a, 2019b). This theory emphasizes the significance of a person's deep disposition to engage in moral growth together with others. This approach was operationalised in a model designed to capture pupils' growth, which comprises four key components: (1) understanding (cognitive-emotional perception of the moral character development process); (2) purposefulness (voluntarily and consciously committing to moral development); (3) moral crafting (engaging practically in moral growth guided by phronesis); and (4) moral identity (experiencing joy and support throughout the process of moral development).

Drawing on data from a 3-year longitudinal study, this paper explores early adolescents' beliefs about the development of their moral character in Latvia, and its changes from the initial measurement in May 2022 (Fernández González & Surikova, 2023) to the second one in May 2023. The aim of the study was to understand the evolution of pupils' understanding, purposefulness, moral crafting experiences, and perceptions of their moral growth over a one-year period.

Methodology

This study addressed several research questions. Firstly, at the 2nd measurement point in May 2023, how did pupils comprehend the concept of moral growth and its mechanisms? Were they inclined and interested in actively participating in their own moral development? Furthermore, what were their experiences, encompassing motivations, barriers, and strategies, in embodying and practicing virtues in their daily lives? Did they perceive satisfaction and support in their moral development, which contributes to the reinforcement of their moral identity? Additionally, how did these beliefs evolve from the initial measurement conducted a year earlier?

Participants: The study involved a total of 1000 participants from 70 classes across 47 schools (Table 1). The Form 6 participants were mainly 12-13 years old (96 %), while those in Form 8 were mostly 14-15 years old (92 %). 53 % of participants were girls. Geographically, all regions of Latvia were represented in this study. The majority of participants were from Zemgale (31 %), Kurzeme (22 %), and Riga and Pieriga region (21 %).

Table 1

Characteristics of the research sample

Category of analysis	Form 6	Form 8	Total
Number of participants	534	466	1000
Number of classes	33	37	70
Number of schools	27	29	47*

Note. *Number of unique schools (9 schools participated with classes from both Form 6 and Form 8).

The study is representative at the level of the Latvian education system. Given that in the 2022-2023 school year there were 18130 and 20587 pupils in Form 6 and Form 8 in 592 Latvian general education institutions (excluding special education institutions) implementing general basic and secondary education programmes (Izglītības un zinātnes ministrija, 2022), the representative sample of Form 6 and Form 8 pupils participating in the study allows generalisation of results to the 592 schools with 3 % error (Fisher et al., 1995).

Measures: This study employed a comprehensive questionnaire, both theoretically grounded and empirically validated, to gather data on pupils' moral growth. The questionnaire consisted of 35 scale items and three open-answer items, organized into four sections, each capturing a distinct component of the moral growth process.

In Section A, an adapted version of the Character Growth Understanding and Mindset Scale (Dweck, 2000) assessed pupils' beliefs about moral growth. Using a 7-point Likert scale, participants rated six statements in both positive and negative forms (for avoiding desirability bias). The statements covered crucial aspects of moral character growth, including its lifelong improvement, connection with freedom, emotional components, role of moral reasoning, necessity of training, and the importance of joy in moral growth.

Section B, based on Identity Status Theory (Marcia, 2002), prompted participants to choose the statement that best reflected their identification with five levels of maturity in the decision to become a better person: not interested, never thought about it (*diffusion*), have doubts about engaging (*moratorium*), engaged since childhood (*foreclosure*), and engaged after overcoming a moral crisis (*achievement*).

In Section C, adapted versions of the Virtue Grit Scale (Duckworth, 2016) and of the Brief Moral Resilience Scale (Smith et al., 2008) were employed. Pupils assessed their practical involvement in moral growth by rating in a 5-point scale two sets of assertions. The first set “My character growth experience” included 10 grit items addressing personal interest, goal orientation, overcoming difficulties, regular practice, strategic involvement in everyday life, and practical activities related to moral growth. The second set “My involvement in moral growth” included two parts: (1) the sub-set 2-a “Strategic involvement” contained 7 utterances about, e.g., the use of free time, avoiding situations and places inciting to bad moral behaviour, and looking for support among friends and relevant adults; and (2) the sub-set 2-b “Practical activities for moral growth”, which contained 6 statements about pupils’ involvement at school, in the family, in humanitarian activities, in sport and open-air activities, in artistic or cultural activities, and in religious or spiritual activities.

In Section D, which was grounded in the Expectancy Motivation Theory (Vroom, 1964), participants rated five items on a 5-point scale to capture both internal and external dimensions of moral identity development, including self-assessment of involvement and experienced joy in moral growth, as well as perceived support and recognition from friends, family, and school.

The questionnaire, initially developed in English in 2018, underwent translation into Latvian and was tailored to the participants' age group with appropriate vocabulary. The internal consistency of the closed-ended questions, both within sections and as a whole, demonstrated a good reliability ($\alpha = .855$) for the 2nd measurement data (Table 2).

Table 2

Reliability test results for scale items

Moral growth category	Cronbach's alpha
Section A – Understanding	.783 (6 items, 7-point Likert scale)
Section B – Purposefulness	N/A (1 item, 5-point Likert scale)
Section C – Moral crafting	.798 (23 items, 5-point Likert scale)
Section D – Moral identity	.687 (5 items, 5-point Likert scale)
Sections A, B, C, & D	.855 (35 items)

Procedure: Data collection, implemented during the Spring of 2023, used questionnaires in both paper and online formats. Quantitative data underwent processing and analysis in MS Excel and SPSS, utilizing descriptive statistics. Additionally, qualitative data, consisting of 928 statements (6911 words) from Form 6 pupils and 559 statements (4645 words) from Form 8 pupils, were used to illustrate the main trends in participants’ responses.

Results

Initially, the average of each component was ranked (Table 3) to obtain an overarching perspective on the results. Subsequently, the most significant outcomes for each individual were identified.

Table 3

Ranking results

Ranking	Moral growth category	Arithmetic mean (<i>M</i>)		min.-max.
		May 2022	May 2023	
1 st	A – Understanding	5.18	5.18 ↑	1-7
2 nd	B – Purposefulness	3.45	3.61 ↑	1-5
3 rd	D – Moral identity	3.33	3.21 ↓	1-5
4 th	C – Moral crafting	3.11	3.06 ↓	1-5

The ranking results show that, on the one hand, understanding the moral development process (category A) was the highest of the four indicators, and the maturity of the decision to engage in one's own moral development (B) came second. These two indicators had a similar high rank in the 1st measurement and had a positive (increasing) dynamic. On the other hand, pupils' practical engagement in their own moral development was the lowest rated (4th), and pupils' moral identity came third. These two indicators had also low ranks in the 1st measurement and presented a negative (decreasing) dynamic. The detail of the results for each component are presented below.

A – Pupils' understanding of the process of developing moral character: Overall, 68 % of pupils had a good understanding of what moral character is, and that it is possible to develop it over a lifetime and how to do so. Looking in more detail, 70 % agreed that developing moral character brings joy ($M_o = 6$ in a 7-point scale), 75 % agreed that moral growth happens throughout life ($M_o = 6$), and 71 % agreed that managing one's emotions is part of that process ($M_o = 6$). However, about 2/5 pupils did not yet have a clear understanding that freedom increases with character development ($M_o = 4$, $M = 4.90$, $SD = 1.393$) and that practicing is necessary to develop one's moral character ($M_o = 5$, $M = 5.01$, $SD = 1.426$). Comparing the 1st and 2nd measurements it was found that Form 8 pupils' understanding of moral growth improved slightly, while Form 6 pupils' overall understanding remained unchanged since last year.

B - Pupils' purposefulness towards developing their moral character: More than half of the participants (54 %) had a strong interest and desire to involve in their own moral development ($M_o = 5$ in a 5-point scale, $M = 3.61$, $SD = 1.413$). While 1/4 of pupils (25 %) strived since childhood to become better people by developing their moral character, almost 2/5 of pupils (38 %) admitted that they engaged in their moral development rather after a personal moral conversion, by evaluating their previous moral behaviour. As a pupil in Form 6 commented, *"I myself often didn't like the way I behaved, often with anger and envy, so now I am improving myself to get rid of those traits and be happier with myself"*. A Form 8 pupil also commented: *"I realised that I was becoming too nasty and arrogant. It's selfish. I started working with myself on this some years ago"*. About 1/5 of pupils (21 %) had never thought about developing good character, as illustrated in the following remarks: *"Nobody ever talks about it in everyday life, so I didn't think it was important!"* (a pupil in Form 8); *"Before this questionnaire, I hadn't started thinking about how to develop my moral character"* (a pupil in Form 6). Very few pupils (10 %) were not interested in their own moral development. Comparing the 1st and 2nd measurement, the maturity of the moral growth decision of pupils in Forms 6 and 8 was found to have increased slightly.

C - Pupils' moral character development in daily life: As indicated above (Table 3), pupils' practical involvement in their own moral development was the lowest ranked indicator ($M = 3.06$ on a 5-point scale). As for pupils' experience of developing moral character, they generally rated it neutral ($M = 3.20$, $SD = 1.149$, $M_o = 3$ for all indicators excepting three – $M_o = 4$). Participants rated highest the continuity of their interest in moral growth ($M = 3.51$), and their stability and goal orientation for moral development ($M = 3.45$). Pupils were less prone to agree that they do not give up easily ($M = 2.87$) and that they cope well with setbacks ($M = 2.90$). Regarding the moral growth strategies used by pupils, overall, 58 % of them rarely or never asked for advice on developing moral character ($M_o = 2$, $M = 2.41$, $SD = 1.231$) and 43 % of them never took interest or took little interest in moral authorities, i.e. people who exemplify moral growth ($M_o = 2$, $M = 2.73$, $SD = 1.218$). Furthermore, 48 % of participants rarely or never tried to avoid morally disruptive online environments ($M_o = 3$). The most commonly used strategies for moral growth were meeting friends who give good moral example ($M = 3.22$) and having a clear plan for using free time ($M = 3.17$). Regarding the environments in which young people engage for their moral development, most pupils often or very often engaged in sports and outdoor activities ($M_o = 5$), and they reported to help in family chores, to do homework regularly, and to try to learn at school ($M_o = 4$). However, 52 % of pupils admitted that they never or rarely engage in cultural or artistic activities ($M_o = 2$). For their part, spiritual and religious activities were the least used opportunities for moral development: 71 % of participants never or rarely engaged in them ($M_o = 1$). Comparing the 1st and 2nd measurement it was found that the overall indicator of pupils' practical engagement has slightly decreased. Pupils' assessment of their experience of developing moral character did not change, but their assessment of their plans for moral growth and

their factual involvement in moral growth activities decreased by 0.6 and 0.11 points respectively (in a 5-point scale).

D - Pupils' moral identity: Overall, pupils felt a relatively high level of joy and support for moral development, which relates to their moral identity. A good number of participants (72 %) get joy or great joy in the process of moral growth ($M_o = 3, M = 2.97, SD = .994$). Analysing pupils' statements on how they felt about developing their moral character, on the one hand, a number of positive trends were found: positive emotions were mentioned, as can be seen in a Form 6 pupil's comment: *"I feel very good because I see improvements and I like to develop my moral character"*, and in a Form 8 pupil's comment: *"I feel better because I think I've worked a bit on my moral character"*. Moreover, determination to overcome difficulties or challenges was also mentioned: *"The first few days are harder, but not so much, after a few days I do it more often with pleasure"* (a Form 6 pupil). But on the other hand, there were also references to a certain lack of motivation due to poor knowledge, for example in this Form 6 pupil's comment: *"I have never tried to develop my moral character, I don't even know what it is"*, or due to difficulties or challenges, as in this Form 8 pupil's reflection: *"I feel quite bad about developing my moral character because the environment in which I am trying to develop hurts me so much that I don't enjoy developing my moral character at the moment"*. 3/4 of the participants rated their efforts to develop their moral character quite highly ($M_o = 3, M = 3.02, SD = 1.007$). Only 25 % of pupils felt that they do little or nothing in this area. Around 4/5 of participants felt support for their moral development from different environments: especially from family, but also from friends, and less so in the school environment. Some of pupils' statements, sharing examples from their own lives, illustrated well these quantitative results: *"I told my friends about my goal in character development and they supported me"* (a Form 8 pupil's comment on support from friends); *"If I do something really wrong in public, my parents gently reprimand me and tell me why and how to fix/improve it"* (a Form 6 pupil's comment on support from family); *"I can always talk to my class teacher and she will always listen to me and give me wise advice"* (a Form 8 pupil's comment on support in the school environment). Comparing the 1st and 2nd measurement, it was found that the overall score of pupils' moral identity slightly decreased, which may indicate a certain instability of moral identity, a tendency to fluctuate and possibly an increase in demandingness towards oneself and others.

Discussion

In general, it should be noted that the results of the 2nd measurement are intermediate results obtained in the middle of the study, when it is still difficult to judge the general dynamics of pupils' moral growth. However, it can be hypothesised that pupils' increased understanding of the moral growth process (A-understanding) and an increased desire to improve one's character (B-Purposefulness) may have an influence on the two other aspects of moral growth, i.e., on the practical involvement in one's own moral growth (C-Moral crafting) and on the satisfaction and support experienced in this process (D-Moral identity): as the level of awareness and purposefulness increases, pupils may become more conscientious and critical in their evaluation of the other aspects of moral growth, thus leading to a decrease in the scores and overall indicators of these aspects.

The following discussion was organised around three topics related to salient results: support to moral growth; moral growth and emotions; and moral growth and friendship.

Support to moral growth: In early adolescence, often marked by negative changes in motivational indices (Urđan & Klein, 1998), adolescents may particularly benefit from increased support and education on moral values at home and school: parental support positively correlates with moral identity (Sengsavang, 2018), which emphasizes the importance of family involvement. In this study, about 1/5 of pupils had never thought about developing good character. Given the context-dependent nature of moral identity development and the substantial time spent at school, this suggests a need for clearer support in moral character development at school, e.g., employing character 'caught', 'taught', and 'sought' strategies (Arthur et al., 2022). As moral growth is context sensitive, at school "discussions about morality cannot be overly generalized and should be discussed with respect to specific contexts" (Sengsavang, 2018, p. 35).

The results also highlight underutilized opportunities for moral growth in cultural, artistic, spiritual, and religious activities. Following Kristjánsson's (2016) suggestion on promoting an 'enchanted' moral life and emphasizing the importance of emotional awe, enriching experiences in these domains during early adolescence can be encouraged to inspire and foster moral development. In addition, almost half of pupils acknowledged that they do not often make the effort of avoiding morally disruptive online environments. Pupils certainly need specific support to develop a conscious habit of avoiding this kind of online spaces. Unfortunately, the use of technology in the field of moral education is still an undeveloped field, but significant efforts are being done for conceptualizing and measuring the so-called 'cyber wisdom' (Polizzi & Harrison, 2022; Harrison et al., 2023).

Moral growth and emotions: More than half of the participants expressed interest and willingness to actively participate in their moral development. Approximately 3/4 of pupils agreed that developing moral character brings them joy, with a similar percentage recognizing the role of managing emotions in moral character development. Over 80 % of pupils reported having joy or great joy in their moral development journey, indicating a positive emotional experience in becoming better individuals. This emotionally positive perception is crucial, as emotions play a significant role in shaping the moral self (Kristjánsson, 2010). This is acknowledged also by The Jubilee Centre for Character and Virtues (2022), which defines character as a set of traits that generate specific moral emotions, influencing motivation and guiding conduct.

Moral growth and friendship. This study revealed that early adolescents are eager to seek support from friends with high moral standards. This finding resonates with recent research on friendships as the most powerful relationships (Dunbar, 2021) with the highest positive impact on happiness, health, and length of life (Waldinger & Schulz, 2023; Cuddeback, 2021). True friendship has also been found to be crucial for living a moral life (Kristjánsson, 2022; MacIntyre, 2019; Rajský, 2023). Previous studies have indicated that during early adolescence, children develop an increased ability for social comparison, particularly in relation to their peers, and that "adults, especially parents, continue to exert a large influence over youths' beliefs and behaviours" (Urdu & Klein, 1998, p. 16). Most respondents in this study lack both the skills to seek guidance from a trusted adult and appealing moral role models – individuals exemplifying moral and ethical growth, which suggests that early adolescents would benefit from support in initiating personal conversations, such as mentoring or moral coaching, with relevant adults, especially within their family context.

Conclusions

In conclusion, overall, at the 2nd measurement point in May 2023, Latvian pupils had:

- a high level of understanding of the process of moral character development, which remained stable since the 1st measurement (May 2022). However, their understanding of the acquisition of freedom through character development and the need to practise in order to foster one's own moral growth needs to be further developed.
- a certain maturity in their decision of becoming better persons, which has increased slightly since May 2022. This maturity needs to be supported both in the family and at school, where pupils should meet opportunities to think purposefully about their own moral development.
- a mitigated practical involvement in their own moral development, which has slightly decreased since May 2022, in particular regarding their involvement in moral growth activities. Pupils are willing to seek support from friends with high moral standards, and they involve family, school and outdoor activities. However, they rarely seek advice from a trusted adult or take an interest in people who are exemplars of moral growth. Pupils also need specific support for getting the habit of avoiding morally disruptive online environments. Enriching pupils' cultural, artistic, as well as spiritual and religious experiences, where they can draw inspiration for moral development, might also be particularly encouraged.
- a quite strong moral identity, which has however slightly decreased since the first measurement. A high number of pupils find joy in developing their moral character. Pupils feel a clear support for moral development from their families and friends, but less from the school environment.

These conclusions are still provisory, as they are based on intermediate results of a longitudinal study. Nevertheless, this article presents a distinctive outlook on pupils' perspectives regarding moral character growth. It can prove particularly beneficial for parents, educators, and school administrators aiming to foster moral development in pupils, and it is a significant contribution to the advancement of moral education within the Latvian education system. The insights provided here offer valuable material for personal consideration and are conducive to discussions within families, classrooms, teacher meetings, school leadership seminars, and educational policy deliberations. Additionally, this study may serve as a valuable resource for academic professionals engaged in the training of future educators and the ongoing development of practicing teachers.

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Bibliography

1. Arthur, J., Fullard, M., & O'Leary, K. (2022). *Teaching character education: What works*. Research report. University of Birmingham, Jubilee Centre for Character and Virtues. https://www.jubileecentre.ac.uk/userfiles/jubileecentre/pdf/Research%20Reports/TeachingCharacterEducation_WhatWorks_ResearchReport.pdf
2. Biesta, G. (2021). The three gifts of teaching: Towards a non-egological future for moral education. *Journal of Moral Education*, 50(1), 39–54. <https://doi.org/10.1080/03057240.2020.1763279>
3. Cuddeback, J. (2021). *True friendship: Where virtue becomes happiness*. Ignatius Press.
4. De Ruyter, D., Oades, L., Waghid, Y., Ehrenfeld, J., Gilead, T., & Chatterjee Singh, N. (2022). Education for flourishing and flourishing in education. In O. Ergas, T. Gilead, & N. C. Singh (Eds.), *Reimagining education: International science and evidence-based education assessment* (pp. 72–131). UNESCO MGIEP.
5. Duckworth, A. (2016). *Grit scale*. <https://angeladuckworth.com/grit-scale/>
6. Dunbar, R. (2021). *Friends: Understanding the power of our most important relationships*. Hachette UK.
7. Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality, and development*. Psychology Press.
8. Fernández González, M. J. (2019a). At the heart of virtue growth: 'Self-of-virtue' and 'virtue identity'. *Estudios sobre Educacion* 36, 9–29. <https://doi.org/10.15581/004.36.9-29>
9. Fernández González, M. J. (2019b). Relational-self-of-virtue: Classical, modern and Christian perspectives in moral education. In L. Daniela (Ed.), *Human, technologies and quality of education, 2019* (pp. 22–32). The University of Latvia Press. <http://doi.org/10.22364/htqe.2019.02>
10. Fernández González, M. J., & Surikova, S. (2022). *Latvijas skolēnu morālā rakstura attīstīšana: 1. mērījuma rezultāti* [Developing the Latvian pupils' moral character: The results of the 1st measurement]. Popular science report. UL FEPA SIP. <https://dspace.lu.lv/dspace/handle/7/61388> (in Latvian)
11. Fernández González, M. J., & Surikova, S. (2023). *Latvijas skolēnu morālā rakstura attīstīšana: 2. mērījuma rezultāti* [Developing the Latvian pupils' moral character: The results of the 2nd measurement]. Popular science report. UL FEPA SIP. <https://dspace.lu.lv/dspace/handle/7/65021> (in Latvian)
12. Fisher, S., Arkin, H., & Colton, R. R. (1995). *Introducción a la Estadística* [Introduction to statistics]. Ateneo. (in Spanish)
13. Hansen, D. M., Bretl, B. L., & Amini, B. (2021). *Adolescent development in context: Social, psychological, and neurological foundations*. University of Kansas Libraries. https://kuscholarworks.ku.edu/bitstream/handle/1808/27707/Hansen_Adolescent_Development_in_Context_rev20210910.pdf?sequence=7

14. Harrison, T., Polizzi, G., McLoughlin, S., & Moller, F. (2023). Measuring cyber wisdom: Preliminary validation of a new four-component measure. *Education and Information Technologies*, 1–20. <https://doi.org/10.1007/s10639-023-11953-9>
15. Helliwell, J. F., Layard, R., & Sachs, J. D. (2023). The happiness agenda: The next 10 years. In *World Happiness Report 2023* (11th ed., Chapter 1, pp. 15-28). Sustainable Development Solutions. https://happiness-report.s3.amazonaws.com/2023/WHR+23_Ch1.pdf
16. Izglītības un zinātnes ministrija. (2022). *Izglītojamo skaita sadalījums pa klasēm vispārīzglītošajās dienas apmācības programmās 2022./2023.m.g. (bez speciālajām skolām un klasēm* [Distribution of the number of students by grades in general education day training programmes in study year 2022-2023 (without special schools and grades)]. Valsts izglītības informācijas sistēma. https://www.viis.gov.lv/sites/default/files/2023-07/vs_skolenu_sk_klasem_2022_2023.xlsx (in Latvian)
17. Kingsford, J. M., Hawes, D. J. & de Rosnay, M. (2018). The moral self and moral identity: Developmental questions and conceptual challenges. *British Journal of Developmental Psychology* 36(4), 652–666. <https://doi.org/10.1111/bjdp.12260>
18. Kohlberg, L. (1984). *Essays on moral development. Vol II: Psychology of moral development*. Harper & Row.
19. Kristjánsson, K. (2010). *The self and its emotions*. Cambridge University Press.
20. Kristjánsson, K. (2016). Flourishing as the aim of education: Towards an extended, ‘enchanted’ Aristotelian account. *Oxford Review of Education*, 42(6), 707–720. <https://doi.org/10.1080/03054985.2016.1226791>
21. Kristjánsson, K. (2019). *Flourishing as the aim of education: A neo-Aristotelian view*. Routledge.
22. Kristjánsson, K. (2022). *Friendship for virtue*. Oxford Academic.
23. MacIntyre, A. (2019). *Is friendship possible?* Address at the di Nicola Center for Ethics and Culture's 20th annual conference (08.09.2019). https://www.youtube.com/watch?v=LuAP_7jmssQ
24. Marcia, J. E. (2002). Adolescence, identity, and the Bernardone family. *Identity: An International Journal of Theory and Research*, 2(3), 199–209. https://doi.org/10.1207/S1532706XID0203_01
25. Metz, T. (2021). Ubuntu: The good life. In F. Maggino (Ed.), *Encyclopedia of quality of life and well-being research* (pp. 1–5). Springer. https://doi.org/10.1007/978-3-319-69909-7_4029-2
26. Noddings, N. (1984). *Caring: A feminine approach to ethics and moral education*. University of California Press.
27. OECD. (2021). *Embedding values and attitudes in curriculum: Shaping a better future*. OECD Publishing. <https://doi.org/10.1787/ae2adcd-en>
28. Polizzi, G., & Harrison, T. (2022). Wisdom in the digital age: A conceptual and practical framework for understanding and cultivating cyber-wisdom. *Ethics and Information Technology*, 24(16), 1–16. <https://doi.org/10.1007/s10676-022-09640-3>
29. Rajský, A. (2023). Aristotelian politiké philía as a subject of moral education. *Paedagogia Christiana*, 51(1), 41–64.
30. Saeima. (1998). *Law of education*. 17.11.1998, No. 343/344. (with amendments till 15.04.2021.) <https://www.vvc.gov.lv/lv/media/1154/download?attachment>
31. Sanderse, W. (2015). An Aristotelian model of moral development. *Journal of Philosophy of Education*, 49(3), 382–398. <https://doi.org/10.1111/1467-9752.12109>
32. Sengsavang, S. (2018). *Moral identity development across middle childhood and adolescence*. [Doctoral dissertation, Wilfrid Laurier University]. Scholars Commons @ Laurier. <https://scholars.wlu.ca/etd/2085>
33. Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. <https://doi.org/10.1080/10705500802222972>
34. Stevenson, M. (2022). *Education for human flourishing*. Centre for Strategic Education.
35. The Jubilee Centre for Character and Virtues. (2022). *The Jubilee Centre framework for character education in schools (3rd edition)*. University of Birmingham, Jubilee Centre for

- Character and Virtues. <http://jubileecentre.ac.uk/userfiles/jubileecentre/pdf/character-education/Framework%20for%20Character%20Education.pdf>
36. Urdan, T., & Klein, S. (1998). *Early adolescence: A review of the literature*. Paper prepared for the U.S. Department of Education Office of Educational Research and Improvement and presented at the conference on Early Adolescence: Designing Developmentally Appropriate Middle Schools, Washington DC, May 7–8. https://www.rti.org/sites/default/files/resources/early_adolescence.pdf
37. Vroom, V. H. (1964). *Work and motivation*. Wiley.
38. Waldinger, R., & Schulz, M. (2023). *The good life: Lessons from the world's longest scientific study of happiness*. Simon & Schuster

Sanitary (Medical) Service of Latvian Armed Forces, Its Formation and Activities in the Period of Independence War 1918-1920

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Abstract: Directly after proclaimed independence of Latvia State in 18th of November in 1918, the Latvia as a young state commenced formation of Defence system: military unit formation and establishing Medical service. The study provided theoretical research and analysis of topical activities of Sanitary (Medical) service: recruiting Medical personnel and management of Health care system, monitoring treatment capacities and readiness of hospitals and organized medical logistic system, transportation of casualties. Results of the study indicated that Sanitary (Medical) service of Latvian Armed forces successful solved the tasks of Health care and saved the lives and health of hundreds and thousands of soldiers. Sanitary (Medical) service provided significant and effective Healthcare system of personnel, managed of medical treatment facilities in period of Independence war; supported and taken guidance of medical logistic process. Sanitary (Medical) service managed support of armed forces units in period of Independence war 1918-1920 by establishing first aid posts/dressing sections for casualty's care, organizing casualties transportation to medical treatment facilities, providing support with special medical equipment, and medical materials. The aim of the study was to describe and analyse Sanitary (Medical) service personnel leadership, adaptability, resilience, empathy, compassion in period from 1918 till 1920 that adapt quickly to changing circumstances in complicated political situation and aggravated economic reality. Sanitary (Medical) service personnel made decisions that had saved the lives of thousands of soldiers.

Keywords: Sanitary (Medical) service personnel, Independence War 1918-1920

Introduction

Latvian defence system establishment started directly after 18th of November of 1918, when Latvian State independence was proclaimed. The young state soon was involved in Latvian Impendence war in period 1918-1920 (Ciganovs, 2013). Latvian State was ready to protect it's the independence from Germanies encroachment in west part of country and Bolshevik Soviet in the east part of country. Defence system formation realized from November of 1918 in fluctuated political situation and deep economic crisis, that had negative impact on formation process of Latvian Armed forces as well on formation process of Sanitary (Medical) service (Andersons, 1983). The medical personnel involved in the Sanitary (Medical) service faced numerous obstacles, including shortages of resources, manpower, and infrastructure. Sanitary (Medical) service personnel shown ability to work together, despite the challenges, that was important for collaboration in achieving common goals. The Landwehr forces (National guard) were mobilized and structured into four regions (Kurzeme, Vidzeme, Latgale and Zemgale) in 1919 by Germanies supporters. Military unit had the urgent necessity in sanitary (medical) service, therefore some army regiment organised medical treatment facilities with assistance of local (regional) medical personnel, but logistic support come from Germany. As well there were two brigades in Latvia, that were formed by Latvian volunteers (Ciganovs, 2016). The North Latvian brigade was formed in northern part of Latvia and Southern part of Estonia (Ainaži -Pērnavā- Tallinn). The Southern Latvian brigade established in Riga region. Independence war embraced wide territory of Latvia. Battles between military formation took place in different regions in all territory as a result numbers of casualties were high. They transported to the closest medical facilities. The capacities of available war hospitals did not correspond to required necessities, therefore state involved municipal and private medical facilities, where casualties get medical care (Bebrišs, & Bambals, 1991). But hospitals were overcrowded, shortage of medical personnel and medical materials was reality.

The Latvian Armed forces was established only in July of 1919, and directly after was organized Sanitary command of Sanitary (Medical) service. Each regiment had medical facility (division lazarettes). Latvian armed forces had a new structure: there were four divisions (Kurzermes, Vidzemes, Latgales and Zemgales). The main task of Sanitary administration of Sanitary (Medical) service was

create structure of Sanitary service corresponding the structure of Armed forces, recruited medical personnel and organized logistic system with medical equipment and medical materials support (Bebris & Bambals, 1991). The medical personnel in the Sanitary (Medical) service demonstrated emphasized empathy and compassion qualities daily as they cared for injured soldiers, often under difficult conditions. Sanitary Command worked hardly to organised adequate medical care of military personnel in shortage of financial resources. Very helpful was private donation that Latvian army get as well donation from US Red cross mission. Health care of Latvian armed forces had the main urgent tasks in initial period (in 1919) to provide support of battle casualties: establishment of first aid sections, organizing medical evacuation assets, formation of system of war hospitals and immediately solving the problems of medical supplies. One of the topical tasks of Sanitary service was recruiting different ranges of medical personnel. Sanitary service used existing system of municipal and private hospitals and managed health care facilities as war hospitals, division lazarettes, garrison lazarettes, first-aid posts. Formation of medical logistic system started with establishing sanitary stores that were topical for providing medical materials supplies. Involving of Latvian army unit in numerous battles in wide territory shown necessity to organize rapid casualty's transportation, therefore sanitary train and sanitary ambulances played important role in solving problem with casualty's movement and further treatment. The proximity of battle line called for establishing regional medical facilities (garrison lazarettes) with strict coordination and organization.

Methodology

The main tasks of theoretical research were to describe formation and structure of Sanitary (Medical) service, characterize activities of Sanitary (Medical) service in Latvian Armed Forces. The main research method was a theoretical analysis of available resources that was done in last two years, with explanation Sanitary (Medical) service personnel qualities (leadership, adaptability, resilience, empathy, compassion) in period of organizing casualty care in battlefield, providing first aid in front line, analyse casualty's transportation system and providing health care in health care facilities: war hospitals, and others medical components divisions lazarettes, garrisons lazarettes, during Latvia's struggle for independence.

Results and Discussion

The Latvian Army Sanitary command was established in 19th of July in 1919 directly after the Latvian Army establishing (in 10th of July in 1919). The Army Sanitary command provided control and management of health support, logistic procedures as well medical treatment facilities in army. Formation and development of Sanitary (Medical) service needed competent guidance, experience and knowledges in complicated political and difficult economic period of Independence war. The individuals tasked with forming and leading the Sanitary (Medical) service during Latvia's struggle for independence period, they needed strong leadership skills to navigate the complexities of the political situation and economic challenges. The first commander of Sanitary (Medical) service was doctor - general Pēteris Sņķers (Vīksna, 2007). He was experienced professional and leader of Sanitary (Medical) service. Sanitary service had two parts: Medical part and Veterinary parts (Fig.1). Medical service provided control and management of health care of casualties, medical logistic support as well guidance of treatment capacities of dressing sections, lazarettes and hospitals. Involving the army formations in active battles had consequences - numbers of casualties were high. The capacities of available war hospitals did not correspond to required necessities. There was one hospital (in Riga) in 1919, in the period of Independence war the numbers of hospitals increased till five in 1920.

Formation of divisions of Latvian army (Kurzermes, Vidzemes, Latgales and Zemgales) continued with establishment and organization of functional activities of divisions lazarettes that was merit of Sanitary Command. The garrisons' lazarettes were formed in Valmiera, in Liepaja, in Daugavpils and in Ludza. Active war situation, large numbers of casualties revealed urgent problem was casualty's evacuation. Problem was solved by organizing two kinds of the transports modules that included sanitary transport service (ambulances) and sanitary train. Crucial problem of medical logistic were solved by establishing logistic system that included store for medical equipment and medicines. Essential traits of medical personnel in diverse and inclusive environments were resilience and collaboration.

After the Independence war 1918-1920 Latvian Army was reduced and Sanitary (Medical) service undergone transformation. The number of hospitals were reduced till three (in Riga, in Daugavpils, and in Liepaja). The one sanitary store provides logistic for all army sanitary formations.

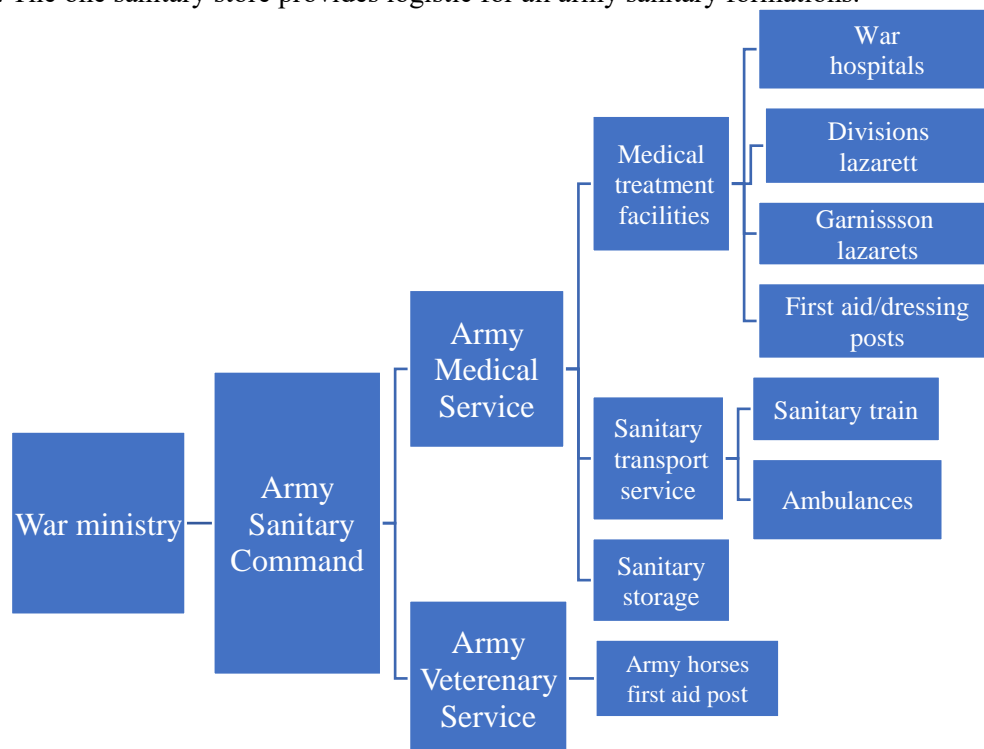


Figure 1. Army Sanitary Command established structure and organisation of Sanitary service

Casualty care in combat operation

Battles of Independence war embraced all territory of Latvia. Sanitary service had urgent problem with all ranges of medical personnel. Sanitary service command organized recruitment of professional medical specialists (doctors, nurses, feldshers, combat medics). Initial Medical service was established by Latvian doctors (physicians), who get medical university education in St. Petersburg. Military medical education allowed to implemented ideas of military medicine and developed Latvian army medical service (Bebris et al, 1992). Medical personnel in units provided combat casualty care (first aid, emergency care). Medical personnel demonstrate personality traits such as leadership, adaptability, resilience, empathy, compassion, that played a vital role in the successful establishment and operation of the Sanitary (Medical) service during Latvia's struggle for independence After the first aid on the battlefield casualty were transported to in first aid posts/ dressing sections where they get medical treatment, after that casualties were transported to next medical treatment facilities (lazarettes and hospitals). The hospital system in Latvia was old, it was inherited from Tsars Russia and included three hospitals: Riga war hospital, that was built in 1754, Hospital in Daugavpils that was built in 1827 and hospital in Liepaja, that was built in 1900.

War hospitals

Riga war hospital was established in 1919 in 25 of May. The head doctor was K. Rozenkalns. The medical personnel included 29 employers (2 doctors). At the beginning (from May 1919) medical equipment and medical materials were enough for providing health care for casualties: in June it admitted 605 patients, in July it admitted 460 patients. Transportation section of hospital included three horses. Initially hospital location was on J. Astra str., but in autumn of 1919 it has additional base on Hospital str. Active combat situation demanded increasing the hospital beds numbers in Riga war hospital. The numbers of hospital bed increased in September of 1919 till 300 hospital beds, in October of 1919 till hospital beds 500; and till 900 hospital beds in November of 1919; but in December of 1919 hospital beds reached 1000. The numbers of medical personnel also increased from 128 in September till 294, but in December of 1919, but in January of 1920 there were 427 employers in Riga war

Hospital (Fig.2). Medical personnel of Riga war hospital participated in assessment recruits. Medical commission were organized in October 1919. Infrastructure of Riga war hospital was renovated and arranged after Independence war. At the beginning of peace period (1921) numbers of bed in Riga war hospital was 500 (Bebris et al,1992).

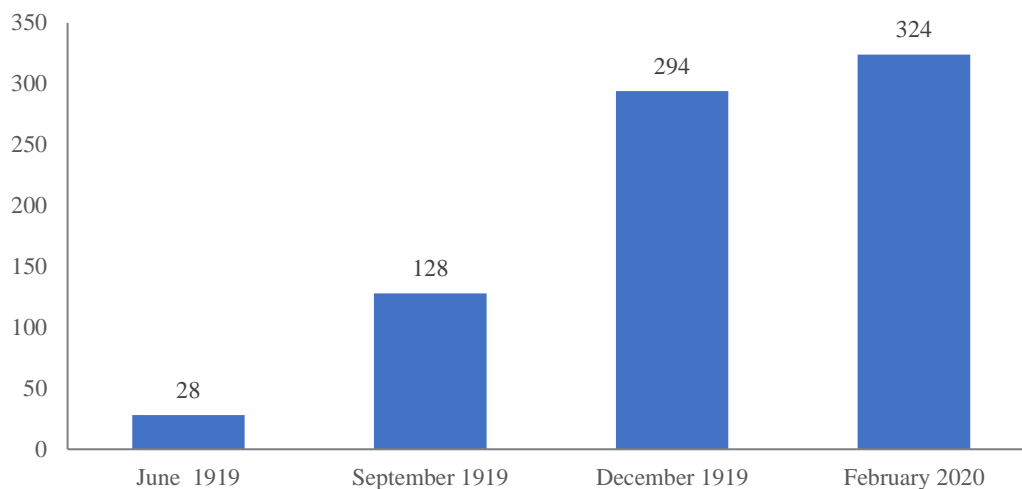


Figure 2. **Medical Personnel employers number in Riga war hospital 1919-1920**

Daugavpils war hospital was organized on the basement of Rēzekne lazarette that moved to Daugavpils. Initially capacity of Daugavpils war hospital was 150 bed, the numbers of employers - medical personnel were 47. The great challenge for Daugavpils war hospital was dysentery epidemy in 1920. After Inferences battles in Daugavpils war hospital medical equipment were up-dated, infrastructure was improved. At the beginning of peace period (1921) numbers of bed in Daugavpils war hospital was 300 (Bebris et al,1992).

Liepāja war hospital was established on the basement of Liepāja garrison lazarette in July of 1919. Medical equipment provided as donation of USA Red Cross and Liepāja citizens donations. It started admitted patients in August 1919. Initially capacity of Liepājas war hospital was 60 bed, then the numbers of beds increased till 400 in 1920, but at the beginning of peace period (1921) numbers of bed in Liepāja war hospital was 150 (Bebris et al,1992). Medical personnel ability to empathize with the suffering of others and provide compassionate care have been crucial in maintaining morale and cohesion within the armed forces.

Division lazarettes

There were four divisions in Latvian army (Kurzermes division, Vidzemes division, Latgales division and Zemgales division) according established regional system of Latvia (Ciganovs, 2013). Each regiment had medical facility (division lazarettes). Head doctor of division lazarette was responsible for health support in unit, as well logistic and storage of medical /sanitary equipment and medicine Head doctor has taken care about provision and sanitary status in food preparing process Division lazarette should plan capacity for 160 patients (beds) and numbers of medical personnel were 12 persons (3 doctors). The medical personnel in the Sanitary (Medical) service have demonstrated ability to work together, despite numerous obstacles and challenges, to achieve common goals. There were two first aid/ dressing posts and transportation section that included five sanitary ambulances and five sanitary carts (Bebris et al.,1992).

Kurzemes division lazarette was established in September of 1919 in Madona and was active till December of 1920. The first head-doctor of Kurzemes division lazarette was doctor – captain E.Vanags. Kurzemes division lazarette had capability 60 beds (in September of 1919) that increased till 150 beds (in February of 1920), its location in February 1920 was in Rēzekne.

Latgales division lazarette was established in September of 1919 in Cēsis, but active forward line had necessity to move it to Bolderāja, where in the forward surgical post, dressing section admitted 650 casualties. Then the forward surgical post moved to Jelgava, where its capacity was 450 beds in October

of 1919, but in December of 1919 the first aid / dressing post with dressing section take care about 716 casualties. After that the first aid / dressing post displaced to Balvi, where it taken care about 307 patients. Latgales division lazarette transferred to Lizums, where number of beds were 140. Latgales division lazarette support forward activities of Latgales division. Sanitary train evacuated patients from forward line to Latgales division lazarette. There were 476 patient who get health care in period from January till April of 1920 in Latgales division lazarette.

Vidzemes division lazarette was established in August 1919 in Valmiera. It coordinated activities with Estonian Army, get logistic support from it. It provided health care support for 1683 patient in period from august 1919 till august 1920 (soldiers and prisoners). It provided healthcare in infection department for typhus patient in Mach of 1920 in Valmiera.

Garrison lazarettes

There were four garrisons that support divisions Sanitary service.

Valmieras garrison lazarette was established in August of 1919. It was involved in consequences abolishment of typhus epidemic. It organized healthcare for patient with typhus, the largest part of them were prisoners. Valmieras garrison lazarette received logistic support from US Red Cross.

Liepājas garrison lazarette was established in July of 1919. The head doctor of Liepājas garrison lazarette was colonel doctor J. Alksnis. The number of beds in August of 1919 were 30 then it increased till 100 in September, and till 300 in January 1920. Liepājas garrison lazarette provided health care for typhus patients. The number of typhus patient were 439 in January of 1920. Activities of Liepaja garrison lazarette continued in 1921, but number of beds reduced till 300, then till 150 and finally till 126. Liepājas war hospital was established on basement of Liepājas garrison lazarette.

Daugavpils garrison lazarette was established in April of 1920. It had 150 beds. The first head doctor of Daugavpils garrison lazarette was doctor captain Blumfelds till may of 1921 and them lieutenant colonel E. Skadiņš. Daugavpils garrison lazarette provided health care for dysentery patients (n=300) in July 1920. Daugavpils war hospital was established on base of Daugavpils garrison lazarette.

Ludzas garrison lazarette was established in April of 1920. The first head doctor was A. Rubins. The number of beds were 60, lazarette was overcrowded, it provided healthcare for 150 patients. It was active till September of 1920. Collaboration of Medical personnel in making decisions process, quickly adaptation to changing circumstances was important and crucial for saving lives of thousands of soldiers.

Army logistic system

Sanitary (Medical) service Logistic module was essential support element for successful activities of Latvian Armed forces units. Medical Logistic system establishment was huge challenge for government of recently formed Latvian state. The medical personnel involved in the Sanitary (Medical) service have faced with shortages of resources, and infrastructure. Initially reserves were empty, destroyed, local funds could not realize adequate medical logistic support for new formed units. Blockade excluded using external resources on this moment (1919). There were some number of medicaments and medical materials as remnant from Germany and Russian abandon reserves. The special position- Pharmacologic administration board was establishing by Sanitary (Medical) service command in 1919. There was large scale of responsibilities: control of medical supplies (medicines) and medical material; medical equipment management; surgical instrument survey, medical clothes distribution ect. The army sanitary store started work from June 1919 the first chief was pharmacists captain N.Daugulis. Large amount of medical materials was adopted after Germany armed forces retreat in June 1919. Medical supplies and medical materials in store were distributed in short time. The next step was updated various materials that income as donation, purchase and humanitarian help of US RED cross. The sections of army sanitary store were open next to the units that participated in active war operations in autumn 1919 in Jelgava, in Rēzekne. But after active battle period these sections were closed in 1920, the main sanitary store was established in Riga.

Sanitary transportation

Sanitary (Medical) service command organized two sections of Sanitary transport. There were sanitary train section and sanitary land transportation section with ambulances and carts. Sanitary train was

established in August 1919 as a main way for casualty transportation. The head doctor of Sanitary train was V. Jaunzems. The Sanitary train received eight carriage and actively involved in casualty's transportation process from Latgale region where were active battles. Medical personnel shown ability to empathize with the suffering of casualties and provide compassionate care, it have been crucial in maintaining morale and cohesion within the armed forces. The Sanitary train centre was organized in Pļaviņas. The Sanitary trains had 21 carriages in March of 1920. It provided transportation of more than 1180 casualties. The Sanitary train finished its work in April 1921.

Sanitary land transportation section was established in December 1919. It included car-ambulances and Sanitary carriage-ambulances (two- horses and one- horse). There 9760 casualties transported by land sanitary transportation section assets. Army sanitary transport section existed till August 1920.

Army veterinary system

The animals (horses) were used as transportation means in divisions units in cavalierly and in artillery. Veterinary care was essential to keep working capacity of horses. The first aid veterinary post was established in December 1919. They existed till August 1920. Logistic of Veterinary system were provided through Sanitary store. The large number of horses was abandoned after Germany forces withdrawal. There were 5630 horses in February 190 in divisions, 25% of them were ill (*Latvijas kareivis* [Latvian soldiers], 1939). The veterinary disinfection section was established in February 1920 in the first aid veterinary post. The Veterinary system during Latvia's struggle for independence period shown strong leadership skills to navigate the complexities of the real situation

Conclusions

Independence War 1918-1920 period reflected personality development in diverse and inclusive environments. The medical personnel involved in the Sanitary (Medical) service have faced numerous obstacles, including shortages of resources, manpower, and infrastructure. The medical personnel have needed strong leadership skills to navigate the complexities of the political situation and economic challenges. The development of personality traits such as leadership, adaptability, resilience, empathy, compassion played a vital role in the successful establishment and operation of the Sanitary (Medical) service during Latvia's struggle for independence and saving the lives and health of hundreds and thousands of soldiers. These traits are not only essential for historical endeavours but also remain relevant in today's diverse and inclusive environments.

References

1. Andersons, E. (1983). *Latvijas bruņotie spēki un to priekšvēsture*. [Latvian armed forces and its pre-history] Toronto. Daugavas vanagi. <https://daugavpils.biblioteka.lv/alisepac/Details?title=Latvijas-bru%C5%86otie-sp%C4%93kiuntopriek%C5%A1v%C4%93sture&Id=10966&Ident=1038814&InstanceId=13&LibraryId=0> (in Latvian)
2. Bebris, J., & Bambals, A. (1991) *Latvijas armija*. [Latvian army]. Rīga, Zinātne (in Latvian)
3. Bebris, J., & Miltiņš A., & Vīksna A., & Rozenbergs I. (1992). *Īsi par kara medicīnas vēsturi un dažiem kara ārstiem, veterinārārstiem un farmaceitiem* [Shortly about war medicine history and some military doctors, veterinary doctors and pharmaceuticals]. Rīga, Zemessardze asociācija (in Latvian)
4. *Latvijas kareivis* [Latvian soldiers] (1939) Nr.159 (19. jūlijs) *Sanitārās iestādes 20. gados*. [Sanitary institutions in 20th years]. <https://dspace.lu.lv/dspace/bitstream/handle/7/31857/29853311>
5. Ciganovs, J. (2013) *Latvijas neatkarības karš 1918-1920* [Latvian Independence war in 1918-1920], Zvaigzne ABC.
6. Ciganovs, J. (2016). *1919. gada vasara – vienotas Latvijas armijas izveidošana* [Summer of 1919–joint Latvian army formation] <https://www.sargs.lv/lv/latvijas-neatkaribas-kars/2016-08-10/1919-gada-vasara-vienotas-latvijas-armijas-izveidosana> (in Latvian)
7. Vīksna, A. (2007). Latvijas ārstu publicēto datu meklējumi. *Acta medico-historica Rigensia* VIII: 276–294. DOI: 10.25143/amhr.2007.VIII.21,276-294 (in Latvian).

The Role of Stress and Conflict Management in Sustainable Business Processes

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Abstract: Sustainable development is a complex process that poses many challenges for organizations. This process involves transforming production processes, technologies, and products, as well as reorganizing management and structure. As for a sustainable environment, the starting point of sustainable management is people, who are a unique resource for gaining a competitive advantage. Therefore, processes should be designed to increase employee satisfaction and performance. However, it should be considered that the transition to sustainable processes requires changes, causes uncertainty in roles and functions, requires the performance of non-routine tasks, and, most importantly, constant innovation. These factors can cause organizational stress and conflict, which can prevent organizations from making necessary changes or achieving success. The aim of the article is to highlight the importance of conflict management and stress management in the transition to sustainable management, based on recent research and scientific works. The role of organizations in the process of sustainable development is highlighted, as well as the need for employee training, job satisfaction, and innovation. It is worth noting that there is limited research and literature in this area, despite the fact that sustainable management requires more complex changes, and the timeliness of these changes is crucial, which depends on the employees and effective management.

Keywords: conflict management, stress, sustainable business, job satisfaction

Introduction

The future of our planet is becoming increasingly uncertain due to a combination of factors such as global warming, climate change, environmental pollution, and rapid technological development. Despite the efforts of international organizations, local authorities, and activists to raise awareness and promote the wise use of resources, the situation is still deteriorating. These changes are affecting the ecosystem and behaviour of different species, and are causing a depletion of resources. Developing countries are particularly vulnerable to the negative impact of these changes due to their geographic location and economic situation (Tol, 2018).

The business sector has a partial responsibility for the current environmental issues as their activities can lead to changes, resource depletion, and pollution. Therefore, taking care of the environment is now part of the social responsibility of modern businesses (Chuang & Huang, 2018). Organizations must comply with certain production standards and meet regulations to protect the environment, such as the European Union directives (WEEE, RoHS). Since resources are unevenly distributed, some are exhaustible, and their prices increase over time, to promote the use of renewable resources The United Nations Framework Convention on Climate Change was signed (Bildirici & Gökmenoğlu, 2017). Some countries have specific regulations regarding environmental pollution. For example, in Indonesia, the business sector is responsible for pollution caused by land fires, and the government has developed legislation that obliges organizations to maintain the sustainability of environmental functions (Naldo & Sirait, 2017). Similarly, Brazil has changed its policies to address deforestation, which was the main issue leading to ecological disaster (Rochedo et al., 2018).

Certainly, the primary motivation for environmental and resource conservation is the well-being of the world's population, particularly as the numbers continues to rise (FAO, 2009). Environmental changes impact people and their well-being in several ways. One significant impact is on food production, which is decreasing due to climate change, thereby requiring agricultural practices to become more environmentally friendly and sustainable (Parmesan, 2022). Global warming also leads to the different migration of species, changing environmental conditions that may facilitate the spread of different diseases in the future, or the spread of a disease that is not characteristic of a particular geographic area (Pecl et al., 2017). There are various studies on the relationship between economic prosperity and climate change, the results of which are mixed, some scientists believe that global warming will lead to

a decrease in domestic product and with it a decrease in income (Moore & Diaz, 2015; Tol, 2018). There is an opinion that climate change will lead to economic growth in developed countries, and vice versa in developing countries (Lemoine & Kapnick, 2016). The discussed processes increase uncertainty, which negatively affects a person's emotional state. Changes in the environment today make the future unclear.

Based on the factors discussed above, sustainable development becomes necessary, which should cover all aspects and areas of life and business. The process requires the involvement of both governmental and non-governmental organizations, as well as the business sector due to its large impact. However, people's lives are closely connected with the creation and use of goods. Most individuals see their success and self-actualization through career development, dedicating their most important and non-renewable resource - time, to work and professional growth.

The concept of sustainable development includes the well-being of individuals, which cannot be achieved without establishing an appropriate organizational environment. Conflict and stress management are essential components of this environment since they significantly impact an individual's satisfaction with their work and life. Without proper management of these factors, organizations cannot implement the changes necessary for sustainable management. Therefore, the aim of this article is to emphasize the significance of conflict and stress management in the transition towards sustainable management.

Methodology

Based on the aim of the paper, the following tasks were set:

- highlighting the importance of sustainable development and emphasizing the well-being of people in the process;
- discuss importance of changes and innovations in the transition process;
- demonstrating the need for stress and conflict management strategies in the above-mentioned processes.

In the first stage, articles published in scientific journals since 2016 were searched in scientific databases. At the next stage, their abstracts were reviewed, and finally selected articles that met certain criteria, in particular, included original research, were related to sustainable development, organizational stress, organizational conflicts, and changes

Results and Discussion

Job satisfaction as a component of well-being

In today's world, where resources are limited and global crises are more frequent, it has become increasingly important to create a sustainable environment that addresses all aspects of life and development while also prioritizing the environment and nature. The most critical starting point for this process is individuals, specifically their will, consciousness, and desire. For the successful processes, people need access to relevant information, knowledge, and opportunities to deepen their understanding. Additionally, they should be able to live in an environment where their basic personal needs are met, and they are satisfied with their standard of living. Only then will they begin to think about the environment and future generations.

The level of satisfaction in a person's life is determined by various factors such as their emotional and physical wellbeing, the health of their social environment, and their relationships. Since people spend most of their time at work and interacting with colleagues, organizations must create an organizational culture and environment that increases employee satisfaction levels, which ultimately contributes to public welfare (Bernarto et al., 2020). Job satisfaction is a key factor, and it impacts the success of an organization. It is the result of how employees evaluate the job and its characteristics (Hanaysha & Tahir, 2016).

There are various factors that can impact job satisfaction, both personal and organizational. One of these factors is organizational stress, which refers to an individual's response to a perceived threatening or challenging situation in the workplace (McShane & Von Glinow, 2018). This kind of stress can affect not only an employee's mood, but also their overall health, with the severity of the damage depending

on its intensity and duration (Robbins & Judge, 2019). It can also reduce employee performance, worsen relationships, and hinder communication (Dodanwala et al., 2021; Suardi & Furinto, 2023). Several studies have found a link between high stress levels and low job satisfaction, and vice versa (De Simone et al., 2016; Hoboubi et al., 2017; Sureda et al., 2019).

Another factor that can affect job satisfaction is organizational conflict. While conflicts are inevitable in any organization, it is important to manage them properly to prevent negative impacts on the organization's progress and the level of job satisfaction. Destructive conflicts can hinder change, create more conflicts, and lead to uncertainty (Palomino & Frezatti, 2016). On the other hand, well-managed conflicts can reduce psychological risk factors and increase performance.

Organizations must strive to establish a healthy work environment that encourages open communication, provides opportunities for employees to express their opinions, and makes them feel like valued members of the organization. This is crucial because an employee's mood, desire, and readiness for new things are closely linked to their health and emotional state. Therefore, a healthy work environment plays a key role in ensuring job satisfaction among employees, which ultimately benefits the organization and society as a whole.

The importance of stress and conflict management in the transition to a sustainable business

Without the management of organizational stress and organizational conflict, organizations will not be able to fully perform their activities, including the introduction and successful implementation of sustainable development policies. Since the activities of organizations, including the production and sale of products adapted to a sustainable environment, are related to changes. In any field, organizations must constantly monitor the environment and take appropriate steps. In the process of implementing organizational changes, there is almost always resistance from the employees, which is the most difficult and important to overcome. Organizations often fail to realize that people's resistance is not to change, but to how they are treated and what roles they play in the change process (Raza & Standing, 2011). Resistance and conflicts arising during organizational changes may become destructive. Various counterproductive behaviours include spreading misinformation, intentionally underperforming, stealing, damaging property, equipment, or products, disrupting a citizen's social role.

Changes and sense of uncertainty are stress-causing factors. Accordingly, for the employees, any kind of change in the organization may turn out to be stressful and affect the process (Stouten et al., 2018). Thus, it is especially important to manage stress and have an appropriate strategy when implementing organizational change. If the resulting stress is not managed, employees may struggle to adapt to the new reality and modify their behaviour accordingly (Ashford, 1988). The responsibility of reducing and managing stress largely falls on the change leader. The leader must inform employees through timely and clear communication, explaining the results and outcomes. They should present the changes as a challenge that will be beneficial to overcome (Palomino & Frezatti, 2016; Van der Voet, 2016; Paresashvili & Avsajanishvili, 2023).

Uncertainty, stress, performing tasks that differ from routine work, and changes in work functions and roles can lead to negative attitudes among employees (Saksvik et al., 2007). These negative attitudes may ultimately manifest as aggressive behaviour, role conflicts, or intrapersonal and interpersonal conflicts (Patton, 2018). All of these can lead to non-fulfilment of tasks, failure to complete tasks within the specified time, reduction of performance and effort (Khan et al., 2016). This feedback is seen as a barrier in the process of organizational change, which leads to many problems such as tension, low satisfaction and sometimes complete failure of the proposed organizational change (Trice & Beyer, 2001).

On the other hand, based on religious, cultural, social and demographic characteristics, as well as individual characteristics and views, people are different from each other, while their social nature demands to interact with other people. Therefore, conflict in society is inevitable, and since an organization is a group of people united for a common goals, organizational conflict is a natural element of organizational life of all types and sizes. That is why the latest view promotes conflict, based on the belief that a harmonious, calm, overly cooperative organization is likely to become static, apathetic, stagnant, and unable to respond to change and innovation (Pinto, 1989). However, when an organization has a predetermined conflict management strategy, and leaders have the skills to manage conflict, it can

become a positive outcome for the organization. Constructive conflict can increase unity, improve the decision-making process, and change attitudes towards change for the better, while destructive conflict increases stress, staff turnover, and reduces the ability to coordinate and share information (McShane, & Von Glinow, 2018). Constructive organizational conflict can stimulate innovation. As innovation is, in fact, a set of conflicting activities that lead to final changes in the organization or any of its parts (Bledow et al., 2009).

Sustainable management and increased demands for social responsibility and environmental care push organizations to innovate and change (Chuang & Huang, 2018). The importance of innovativeness in the mentioned process is indicated by various meta-analytic studies, which concluded that the interest in both sustainable development and innovative processes has increased and is the object of constant research and observation (Kuzma et al., 2020; Maier et al., 2020). Among them, it is worth mentioning SMEs, who must also adapt to the new reality, which requires the involvement of all stakeholders in the process (Veronica et al., 2020).

Thus, the formation of a Sustainable business, taking into account its principles, is a rather long, difficult, and complex process that affects all aspects of the organization. Therefore, it requires a complete restructuring of the system, modification of production and service processes, and change of supply chains and resources. Which implies a change in strategies, goals, and objectives. Of course, the goal of gaining a competitive advantage, which is impossible without human resources, remains unchanged. To implement such large-scale changes, the organization needs satisfied, loyal, and knowledgeable employees who will have less resistance to change, which is characteristic of any and especially such large changes. However, only in the conditions of a healthy environment, in which the employee is not afraid to argue, conflict, express his opinion, and at the same time feel like a part of the process, it is possible to create innovations and new ideas, which are so necessary for this sustainable development.

The level of consumer awareness is increasing significantly, but not everyone is on board yet. Additionally, products produced through sustainable methods may be more expensive than those produced through traditional means, and there may not be demand for them in certain areas. To address this, suppliers need to create demand for sustainable products. However, this can only happen if employees believe in the future of these products, so the most important thing is for the organization to form a belief in the employees themselves that the nature of the environment and future generations are served by their work. They do work that does not serve the purpose of any organization or individual and increase profits but serves the environment in general.

This is the essence of green human resource management, which aims to create a healthy work environment where employees feel valued and important, and where they understand and contribute to sustainable development (Pinzone et al., 2016). Many studies have emphasized the importance of human resources and employee well-being in the process of creating sustainable and environmentally friendly production (Pinzone et al., 2016; Manuti & Giancaspro, 2019).

To achieve this, employees need to be retrained, both in terms of raising general awareness about sustainability and in terms of specific skills related to their profession. By acquiring new skills and knowledge, employees can better respond to changes in the future and become more innovative (Jayabalan et al., 2020). If the right policies are implemented, stress and conflicts within the organization can be reduced as the level of uncertainty decreases and trust in activities and processes increases. Ultimately, this will make employees more motivated and informed.

Conclusions

The process of creating a sustainable economy involves all areas of life, including all aspects of organizational activities and internal policies. Organizations need to adjust to the new reality, which imposes more responsibility on the business sector regarding taking care of the environment and using resources wisely. Many international and state organizations are taking steps in this direction by creating a legal framework and financing various projects in developing countries. Meanwhile, the business sector is also changing its approach by producing eco-friendly products, using renewable resources, and recycling waste.

Of course, the starting point of sustainable development is a person and well-being, as well as the main human resources for organizations. Therefore, taking care of it is important to increase the level of life satisfaction in general, since one of its components is job satisfaction, while most of people's time is spent on participation in career and economic processes. In addition, it is important for the organizations themselves to have a satisfied employee, whose psycho-emotional state, motivation and well-being increases performance and enthusiasm, therefore affects the achievement of results and success. As, the implementation of sustainable management requires changes, process reengineering, continuous development, and innovation.

To ensure all of the above, organizations must have appropriate stress management and conflict management. Because the current process is directly related to the increase in organizational stress and the emergence of various types of conflicts. If the organization does not manage to reduce the stress and inflame the constructive nature of conflicts in time, this may lead to a failure of the process altogether. However, without a conflict management policy, innovations cannot be developed in the organization and the system will become static. So, on the way to sustainable development, organizations should not ignore the need to manage stress and conflict, and in general, the need to take care of human resources and continuous training.

Bibliography

1. Ashford, S. J. (1988). Individual strategies for coping with stress during organizational transitions. *Journal of Applied Behavioral Science*, 24, 19–36. <https://doi.org/10.1177/0021886388241005>
2. Bernarto, I., Bachtiar, D., Sudibjo, N., Suryawan, I. N., Purwanto, A., & Asbari, M. (2020). Effect of transformational leadership, perceived organizational support, job satisfaction toward life satisfaction: Evidences from Indonesian teachers. *International Journal of Advanced Science and Technology*, 29(3), 5495 – 5503.
3. Bildirici, M. E., & Gökmenoğlu, S. M. (2017). Environmental pollution, hydropower energy consumption and economic growth: Evidence from G7 countries. *Renewable and Sustainable Energy Reviews*, 75, 68-85. <https://doi.org/10.1016/j.rser.2016.10.052>
4. Bledow, R., Frese, M., Anderson, N., Erez, M., & Farr, J. (2009). A dialectic perspective on innovation: Conflicting demands, multiple pathways, and ambidexterity. *Industrial and Organizational Psychology*, 2(3), 305-337.
5. Camille Parmesan, Mike D. Morecroft, Yongyut Trisurat. *Climate Change 2022:Impacts, Adaptation and Vulnerability*. [Research Report] GIEC. 2022. fahal-03774939f
6. Chuang, S. P., & Huang, S. J. (2018). The effect of environmental corporate social responsibility on environmental performance and business competitiveness: The mediation of green information technology capital. *Journal of business ethics*, 150, 991-1009.
7. De Simone, S., Cicotto, G., & Lampis, J. (2016). Occupational stress, job satisfaction and physical health in teachers. *European Review of Applied Psychology*, 66(2), 65-77. <https://doi.org/10.1016/j.erap.2016.03.002>
8. Dodanwala, T. C., Shrestha, P., & Santoso, D. S. (2021). Role conflict related job stress among construction professionals: The moderating role of age and organization tenure. *Construction Economics and Building*, 21(4), 21-37. <https://doi.org/10.5130/AJCEB.v21i4.7609>
9. FAO, 2009. *How to feed the world in 2050. Food and Agriculture Organization of United Nations*. URL http://www.fao.org/fileadmin/templates/wsfs/docs/expert_paper/How_to_Feed_the_World_in_2050.pdf
10. Hanaysha, J., & Tahir, P. R. (2016). Examining the effects of employee empowerment, teamwork, and employee training on job satisfaction. *Procedia-Social and Behavioral Sciences*, 219, 272-282. <https://doi.org/10.1016/j.sbspro.2016.05.016>
11. Hoboubi, N., Choobineh, A., Ghanavati, F. K., Keshavarzi, S., & Hosseini, A. A. (2017). The impact of job stress and job satisfaction on workforce productivity in an Iranian petrochemical industry. *Safety and health at work*, 8(1), 67-71. <https://doi.org/10.1016/j.shaw.2016.07.002>
12. Jayabalan, N., Zafir, M. M., Kumar, R. M. H. M., Hayati, Y., & Mai, F. M. B. (2020). The role of OCBE on green HRM towards performance sustainability. *International Journal of Innovation, Creativity and Change*, 13 (5), 388- 399.

13. Khan, K., Iqbal, Y., & Hussainy, S. K. (2016). Causes, effects, and remedies in conflict management. *The South East Asian Journal of Management*, 10(2), 152-172.
14. Kuzma, E., Padilha, L. S., Sehnem, S., Julkovski, D. J., & Roman, D. J. (2020). The relationship between innovation and sustainability: A meta-analytic study. *Journal of Cleaner Production*, 259, 120745. <https://doi.org/10.1016/j.jclepro.2020.120745>
15. Lemoine, D., & Kapnick, S. (2016). A top-down approach to projecting market impacts of climate change. *Nature Climate Change*, 6(1), 51-55.
16. Maier, D., Maier, A., Aşchilean, I., Anastasiu, L., & Gavriş, O. (2020). The relationship between innovation and sustainability: A bibliometric review of the literature. *Sustainability*, 12(10), 4083. <https://doi.org/10.3390/su12104083>
17. Manuti, A., & Giancaspro, M. L. (2019). People make the difference: An explorative study on the relationship between organizational practices, employees' resources, and organizational behavior enhancing the psychology of sustainability and sustainable development. *Sustainability*, 11(5), 1499. <https://doi.org/10.3390/su11051499>
18. McShane, S. L., & Von Glinow, M. A. (2018). *Organizational Behavior 8/e*. McGraw-Hill Higher Education.
19. Moore, F. C., & Diaz, D. B. (2015). Temperature impacts on economic growth warrant stringent mitigation policy. *Nature Climate Change*, 5(2), 127-131.
20. Naldo, R. A. C., & Sirait, N. N. (2017, October). Implementation of Corporate Absolute Responsibility for Land Fires Causing Air Pollution. In *International Conference on Public Policy, Social Computing and Development 2017*, ICOPOSDev 2017, 57-62. 10.2991/icoposdev-17.2018.12
21. Palomino, M. N., & Frezatti, F. (2016). Role conflict, role ambiguity and job satisfaction: Perceptions of the Brazilian controllers. *Revista de Administração (São Paulo)*, 51, 165-181.
22. Paresashvili, N., & Avsajanishvili, E. (2023). Stress as a Method of Increasing Performance and Stimulating Innovation: A Synthesis of Literature. *Economics and Business*, 37(1), 236-246. <https://doi.org/10.2478/eb-2023-0015>
23. Patton, C. M. (2018). Changes: A conflict management model for organizational redesign efforts. *Journal of Conflict*, 6(1), 26-40.
24. Pecl, G. T., Araujo, M. B., Bell, J., Blanchard, J., Bonebrake, T. C., Chen, I., Clark, T. D., Colwell, R. K., Danielsen, F., Evengard, B., Robinson, S. et al (2017). Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being. *Science*, 355 (6332), 1-9.
25. Pinto, J. K. (1998). *The project management institute project management handbook*. John Wiley & Sons.
26. Pinzone, M., Guerci, M., Lettieri, E., & Redman, T. (2016). Progressing in the change journey towards sustainability in healthcare: the role of 'Green'HRM. *Journal of Cleaner Production*, 122, 201-211. <https://doi.org/10.1016/j.jclepro.2016.02.031>
27. Raza, S.A., & Standing, C. (2011). A systemic model for managing and evaluating conflicts in organizational change. *Systemic Practice and Action Research*, 24, 187-210.
28. Robbins, S.P. and Judge, T.A., (2019). *Organizational behavior*. 18th ed. New York: Pearson.
29. Rochedo, P. R., Soares-Filho, B., Schaeffer, R., Viola, E., Szklo, A., Lucena, A. F., ... & Rathmann, R. (2018). The threat of political bargaining to climate mitigation in Brazil. *Nature Climate Change*, 8(8), 695-698.
30. Saksvik, P. Ø., Tvedt, S. D., Nytrø, K., Andersen, G. R., Andersen, T. K., Buvik, M. P., & Torvatn, H. (2007). Developing criteria for healthy organizational change. *Work & Stress*, 21(3), 243-263. <https://doi.org/10.1080/02678370701685707>
31. Stouten, J., Rousseau, D. M., & De Cremer, D. (2018). Successful organizational change: Integrating the management practice and scholarly literatures. *Academy of Management Annals*, 12(2), 752-788. <https://doi.org/10.5465/annals.2016.0095>
32. Suardi, L., & Furinto, A. (2023). Mobile Working Stress and Employee Innovative behavior: Exploring the Role of Organizational Conflict and Work Engagement. In *Proceedings of the International Conference on Business Excellence*, 17(1), 2150-2160;
33. Sureda, E., Mancho, J., & Sesé, A. (2019). Psychosocial risk factors, organizational conflict and job satisfaction in Health professionals: A SEM model. *Anales de psicologia/Annals of psychology*, 35(1), 106-115. <https://doi.org/10.6018/analesps.35.1.297711>

34. Tol, R. S. J. (2018). The economic impacts of climate change. *Review of Environmental Economics and Policy*, 12(1), 4-25. <https://doi.org/10.1093/reep/rex027>
35. Trice, H. M., & Beyer, J. M. (2001). Changing organizational cultures, In J. M. Shafritz, & J. S. Ott (Eds.), *Classics of organization theory*, 125-137.
36. Van der Voet, J. (2016). Change leadership and public sector organizational change: Examining the interactions of transformational leadership style and red tape. *The American Review of Public Administration*, 46(6), 660-682. <https://doi.org/10.1177/0275074015574769>
37. Veronica, S., Alexeis, G. P., Valentina, C., & Elisa, G. (2020). Do stakeholder capabilities promote sustainable business innovation in small and medium-sized enterprises? Evidence from Italy. *Journal of Business Research*, 119, 131-141.

