

## ***Facilitating and Measuring Health Promotion in the Learning Environment –Student Engagement and Inclusion in School***

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### **Abstract**

Over the last years, surveys in Norway have shown an increase in mental health problems and socio-emotional challenges among youths. To deal with these challenges, health promoting programmes have been implemented, among others a project called SAMM -*A systematic approach to mastering life – the five-step motivation method*. This study presents findings from a secondary school, where the SAMM-approach has been applied in student council work to increase student participation. The student representatives have led processes in their classes to create an inclusive learning environment by asking the following five questions: 1) What is important for us as a group to be okay in school? 2) What are we as a group good at? 3) Is something difficult for us as a group? 4) What do we need to focus on? and 5) How can we work with this? To investigate whether the students experience the learning environment to be health promoting, a questionnaire has been developed based on Antonovsky's health promoting theory. Preliminary findings (n=267) reveal that the majority report giving (76 %) and receiving (79 %) trust, showing (97 %) and being shown (81 %) respect, and giving (93 %) and receiving (72 %) acknowledgement, in the learning environment. Other important aspects of health promotion are mastery and participation, and only 62 % report mastering exercises in school and 42 % that they get to participate in decision-making. In order to create a health promoting learning environment, it seems like changes are needed beyond what students themselves can change.

Keywords: Mental Health Issues, Motivation, Health Promotion, Secondary School

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## Introduction

Mental health issues is a challenge in Norway, and this leads to reduced health and quality of life (Reneflot et al., 2018). The most common problems for children and youth are anxiety, behavioural and affective disorders. Already before the pandemic, there was a worrying increase in number of young girls who report and seek help for mental health problems, and there has been further increase in self-reported mental health issues among children, youth and young adults in general since then, especially in terms of anxiety and depression (Bang et al., 2023). After more than a year with measures for infection control, young people in Norway reported reduction in life quality (Haugseth & Smestad, 2021), such as reduced well-being, missing the opportunity to meeting friends and participating in activities with others. Before the pandemic, 69.5 % of the Norwegian children and youths reported that they had good friendship relations, a number that was reduced to 43.9 % in 2020. The youth also reported having more worries, and that they experienced social arenas as unsafe after the pandemic. In 2019, just above 70 % children and youth reported having a good life quality, and this percentage was reduced to 45 % in 2020 and 40 % in 2021. This shows that there is a need to focus on supporting young people to regain friendship relations, create safe social arenas and increase quality in life in general. This is the concern of the intervention carried out in the current project, facilitating inclusion, and building positive relations between students in upper secondary school.

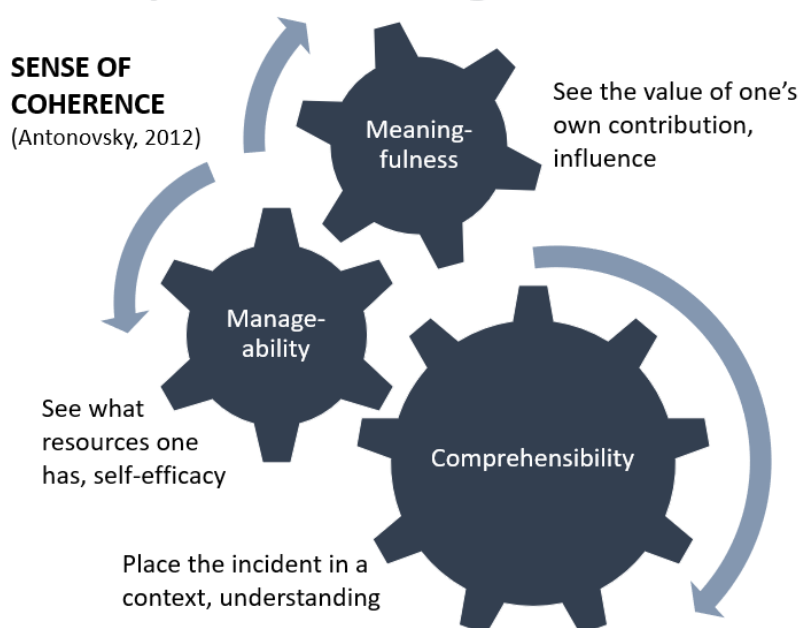
Also reports from surveys in school, show a negative development in recent years (Bakken, 2019, 2022). There has been an increase from 20 % in 2019 to 27 % in 2022 in young people reporting that they dread going to school. Almost one fifth of the students experience that they do not fit in with the others in school, 26 % agree that they are lonely and 13 % do not believe they have friends. Reports also show that about 32 % do not complete upper secondary school in Norway (Bratholmen, 2022), and this could be related to how the students feel about being in school, and whether they have any relations to others in school. This negative trend has continued despite various health promoting measures that have been implemented in Norwegian schools. As pointed out in the final report of one of these projects on which the current study builds, *Health promoting kindergartens and schools*, there is a need to work knowledge-based in health promotion efforts in education, and there is a need for an efficient and objective approach to measure health promotion in school (Hellang & Helmersen, 2022). In addition to presenting an intervention that aims at improving the learning environment for youths, the current study also presents some measures on whether the students experience the learning environment as health promoting. These measurements are developed based on Antonovsky's health promotion theory (2012), which will be described below.

The research question in this study is: How can health promotion be facilitated in secondary school? To answer this, two sub-questions have been investigated, focusing on inclusion and student participation as aspects of health promotion: 1) How can students be engaged in creating an inclusive learning environment? 2) To what extent do the students experience the learning environment as health promoting after the intervention of the student representatives? A five-step approach was applied through the student council in an upper secondary school, and student representatives worked with their class to create a positive and inclusive environment. To measure whether the students perceived the environment as health promoting, a scale was developed based on Antonovsky's health promotion theory (2012). The results from the parts of the scale that concerns inclusion, which was in focus in the intervention, are reported here.

The understanding of inclusion in this study is based on a broader understanding of the term, as defined by UNESCO (2005) and in Norwegian guidelines for education (Meld. St. 6, 2019-2020), emphasising participation and belonging. According to these understandings, inclusion is about all students experiencing that they have a natural place and belong in the social environment, and that their participation and contributions are significant and influence teaching and learning strategies. Inclusion can also be related to health promotion theory, as understanding, participating in, and influencing situations are central elements of experiencing what Antonovsky calls sense of coherence (2012), which will be elaborated on below.

## Theoretical Foundation

Health promotion theory was developed by Aaron Antonovsky, professor in medical sociology, as he was investigating what made people survive and handle challenges, despite extreme stress in life (2012). His theory is also called the salutogenic theory, and he focused on what promotes health and well-being, rather than on pathological symptoms and diagnoses. He investigated common features in the experiences of women who survived holocaust, and identified the three key elements comprehensibility, manageability, and meaningfulness, which together formed a sense of coherence, also called SOC (Figure 1).



*Figure 1: Antonovsky's salutogenic theory (published in Horverak & Langeland, 2022)*

If people experience a strong sense of coherence, meaning that they understand a situation, see that they have resources to handle the situation, and consider acting as valuable and meaningful, they will be better prepared to handle stressful situations, and end up on the positive end of a health scale continuum. Antonovsky (2012) calls these elements resistance resources, that help a person develop resilience. In resilience theory, there is a focus on different protective factors, that may help children survive despite living in challenging conditions, and researchers have identified different sources of protection, such as personal skills, or people they have a relationship to (Borge, 2018). An important point is that resources to handle situations can be found within the individual, or in a person's surroundings. For example, a teacher or a friend could be resources for a student that

struggles with loneliness, or with difficult exercises and tests in various subjects. Being acknowledged and building a good self-esteem could also contribute to building resilience (Olsen & Traavik, 2010), which is something that can be facilitated by making an inclusive and accepting learning environment in school.

Developing a sense of coherence and identifying resources to handle stressful situations could be compared with learning to swim in a river (Antonovsky, 2012). Without a sense of coherence, meaning that one can understand a situation, handle it, and consider acting to be meaningful, a person would perhaps end up in chaos without the ability to deal with challenges in life, as falling down a river fall without control (Figure 2).



*Figure 2: Antonovsky's river metaphor (Published in Langeland & Horverak, 2021)*

To handle the river, the person needs to learn to swim. Related to real life, learning to swim could be to learn to deal with participating in various social settings, and it could be learning to identify resources in the surroundings. These are elements emphasised in the methodology applied in the intervention in the current study.

According to a review on health promotion measures in kindergartens and schools, health promotion in educational contexts concerns developing (Helmersen & Stiberg-Jamt, 2019) 1) capacity for action through participation and self-management, 2) social and emotional competence through relations, engagement, motivation, self-consciousness and participation in social activity, 3) stress management competence through mastery, resilience and autonomy and 4) health promotion competence through knowledge of good mental health. The approach applied in this study particularly facilitates capacity for action and social and emotional competence, as the students are engaged in a process where they are agents of change in their own learning environment, and work with social relations to ensure that everyone feels included in their classes. Further details of the intervention will be described in the following methodology chapter.

## **Methodology**

To investigate how health promotion can be facilitated and measured in an educational context, an intervention has been carried out, and a scale developed, based on among others Antonovsky's health promotion theory. The intervention was carried out through student council work, and all student representatives applied a five-step approach in their classes to work with creating an inclusive learning environment. The student representatives asked their class the following five questions (figure 3): 1) What is important for us as a group to be

okay in school? 2) What are we as a group good at? 3) Is something difficult for us as a group? 4) What do we need to focus on? and 5) How can we work with this?

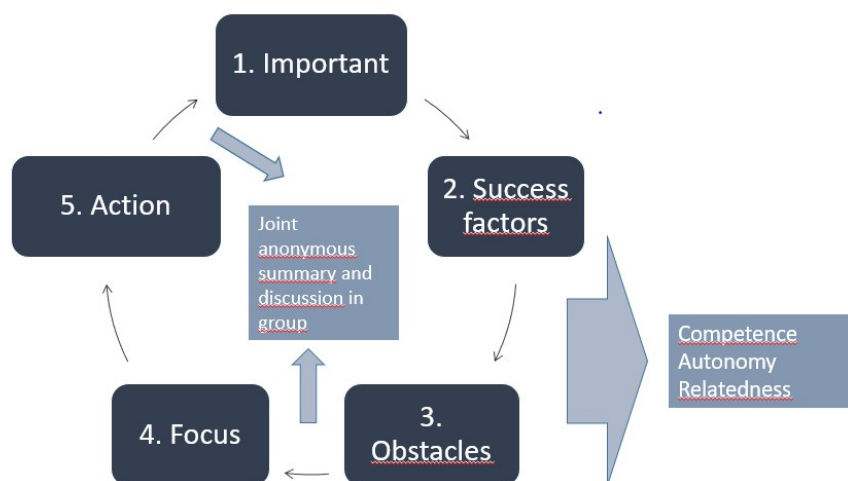


Figure 3: The five-step method (published in Horverak & Aanensen, 2019; Horverak, 2020)

The students first received training in the approach in a student council meeting, and then they collected anonymous, written answers to the first three questions from their class. The answers were brought to another student council meeting, and all student representatives made summaries based on what the students in their class had written about what was important, what was already good and what was difficult for the class. This was followed by a discussion on what the different classes needed to focus on and what they could do. After the student council meeting, the student representatives brought their summaries and presented for their class, suggested some focus areas and actions, and then the class decided on a plan to improve the learning environment. After a period of some weeks, the student representatives reported in another student council meeting how the class had managed to follow up the plan. This intervention was carried out in the first semester the school year 2021-2022. The next school year, the process was repeated, and then the first three questions were adjusted to focus on inclusion: 1) What is important to make everyone feel included? 2) What do we already do to create an inclusive environment in class? 3) What can be challenging when working with inclusion? This will be referred to as the second round of the intervention in the following.

The intervention was carried out in an upper secondary school with about 440 students, most of them between the ages 16 and 18, and some adult students. About half of the students were general studies students, the rest vocational students, youths, or adults. During the second round of applying the method, the students were asked to fill in a questionnaire with questions concerning how they perceived the learning environment, and 267 students responded. A five-point Likert scale was used in the questionnaire, with the following categories: totally disagree, disagree, neither agree nor disagree, agree, and totally agree. The students considered the following claims: I feel seen and heard by others, I listen to others, I experience being trusted by others, I trust others, I feel respected by others, I show respect to others, I master exercises I get, and I participate in decision-making at school. The same questionnaire was distributed in the spring term, after the intervention was completed, and 261 students responded. All data was collected anonymously, and no sensitive or personal information was collected.

## Results

To investigate how health promotion can be facilitated in school, the students' reflections from the second round of the intervention have been summed up. This includes answers to the questions why it is important with inclusion, what they already do to create an inclusive learning environment, what is challenging, and what they planned to focus on and do to be inclusive. In addition, results from two test rounds with a survey developed to measure health promotion will be presented.

To the first question, why it is important that everyone is being included, the students said that it affects the everyday life, and that people need to feel equal, accepted, good and worthy, and not lonely and excluded. To the second question, about what they are already doing to create an inclusive environment, they pointed out both what the teachers do and what the students do. They said that the teachers facilitate for group work, peer partners, class rules and regularly 'class's hour' where important subjects are discussed. Furthermore, they said that the students smile, say 'hi', try to respect each other and include each other in group work. To the third question, about what might be challenging when trying to include everyone, the students admitted that it is easy to forget and ignore others. They also said that it is difficult to include those who do not 'match' themselves due to different backgrounds or values. Sometimes they do not know who wants to be included and who wants to be alone, and who is shy or introverted.

Based on the answers to these questions, the students were to suggest what to focus on and how to do this the next few weeks to make everyone feel included. The students suggested that they could pay attention and see if someone is alone, say 'hi,' smile and be nice. Another example of what the students agreed on was that they were to start a conversation with someone they did not usually talk to. Others wanted to focus on how they communicated, and they were to be conscious about having positive body language. Four weeks later, the students evaluated their chosen foci and action plans. They reflected on how they had worked on inclusion, if they had followed up on their plans, and what they had succeeded in. One class had decided to do things together in their spare time, and they successfully arranged a movie night at school. Others reported that the students in class had become better at giving compliments, smiling, greeting, communicating, and not leaving peers alone unless they preferred it.

To investigate whether the students experienced the learning environment as health promoting, a questionnaire was developed based on Antonovsky's health promoting theory. Results from questions concerning acknowledgement, trust, respect, mastery and participation are included here. Preliminary findings ( $n = 267$ ) reveal many positive aspects in the learning environment (figure 4). As much as 93 % reported that they gave acknowledgement to others by listening to them, and 72 % felt that they were seen and listened to by others, meaning that they felt acknowledged. A majority of 76 % reported giving trust, and 79 % perceived that they received trust. In addition, 79 % reported showing respect, and 81 % that they were being shown respect. Other important aspects of health promotion are mastery and participation, and only 62 % reported mastering exercises in school and 42 % that they get to participate in decision-making.

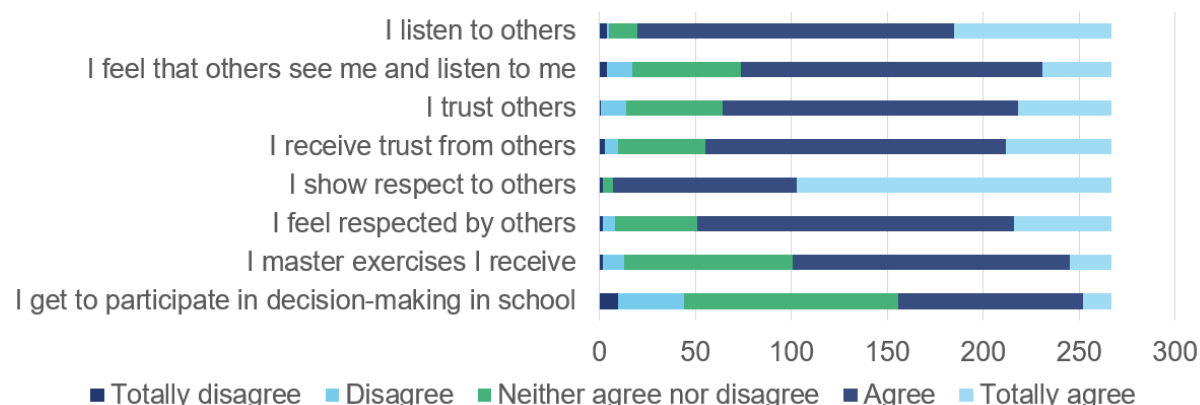


Figure 4: Results of questionnaire on health promotion in learning environment, n = 267

Results from the second round of data collection (n = 261) with the questionnaire measuring health promotion in the learning environment showed that the students had changed their perception somewhat from the first time the questionnaire was distributed (table 1). There was little change in how students perceived their own behaviour concerning giving acknowledgment by listening to others and showing trust. When it comes to respect, there is a significant change in behaviour, as 18 % more of the students reported showing respect to others the second time the questionnaire was distributed. There was also some change in how the students felt about others' behaviour, as four percent less of the students felt acknowledged by others and five percent less felt respected by others. Concerning mastery and participation, there is an increase of five percent who agree that they master exercises, and an increase of eight percent who agree that they get to participate in decision-making.

Table 1: Difference in responses concerning learning environment, n = 261

Claim	Agree t1	Agree t2	Variance
I listen to others	93 %	93 %	0 %
I feel that others see me and listen to me	72 %	68 %	-4 %
I trust others	76 %	77 %	1 %
I receive trust from others	79 %	79 %	0
I show respect to others	79 %	97 %	18 %
I feel respected by others	81 %	76 %	-5 %
I master exercises I receive	62 %	67 %	5 %
I get to participate in decision-making in school	42 %	50 %	8 %

## Discussion

As the results reveal, the students work sincerely with creating an inclusive learning environment. They identify what they succeed with, and at the same time they are conscious about the challenges of including everyone in a class. They also come up with good strategies to include others. When evaluating the measures, it is reported that some of the students 'want to be left alone', but the student representatives did not say much about how they know this. The conclusion that not everyone wants to be social may be a misperception. The students might not understand that their peers are shy or introverted, or even worse - depressed or anxious. One cannot take for granted that students in upper secondary school understand others' behaviour, facial expression, or body language. As youth surveys show, there has been an increasing number of youths who feel alone and excluded since the pandemic started (Haugseth & Smestad, 2021). Therefore, it is important to problematize and focus on the fact that it is not always easy to know whether others really want to be left alone.

Perhaps they just do not know how to build relations or how to deal with shyness or loneliness.

Another issue that is often discussed in relation to inclusion is the importance of respecting each other. The results from the questionnaire show that at the second time of data collection, more students reported respecting others, but fewer students felt respected. This seems somewhat contradicting, as one would assume that when more students show respect, more students would feel respected. What it means to show respect and to be respected may also need to be problematized and discussed, so that the students have a common understanding when they report on how they experience the learning environment and their own behaviour.

When applying a method as the five-step approach described in this study, it might be difficult to find the right balance between student autonomy and teacher interference. For example, there may be situations where the teachers have a clear idea about what the students need to work on, but the students may perhaps not be conscious about it. In the intervention described above, the students were told to work on inclusion in the second round. This interferes somewhat with student autonomy, which is essential to facilitate health promotion (Helmersen & Stiberg-Jamt, 2019). However, even though the focus area for the student council work was predetermined, the students were given the possibility to decide how to work with inclusion, and the action plans were made by the students themselves. In this way, autonomy was ensured within a certain framework. Steering the process of working with the learning environment in specific directions could also be defined as giving autonomy-support, providing the students with the necessary conditions for them to fulfil the psychological need of autonomy (Ryan & Deci, 2017).

Another challenge when applying this type of approach is to follow up the process that is started in the student council. Time could be one challenge and succeeding making teachers involved is another challenge. Sometimes the teachers could be unwilling to prioritize student council work due to time pressure in the subjects. For development activities in school to succeed, it is crucial that leaders are involved in the process (Fullan, 2016), making plans to implement the change, building capacity through facilitating practice, guidance, and leadership, and ensuring structures that sustain the change. Related to the current study, schools where leaders are engaged in student council work and creating a health promoting environment will have a greater chance of success than schools where the leaders do not take charge of the implementation process.

## **Conclusion**

This study shows that when students are being engaged in creating an inclusive learning environment, they act and make a change. The students' reflections provide important knowledge about the students' thoughts and perceptions, and how one can facilitate for further work on subjects like inclusion. The intervention described also illustrates a way of facilitating participation and learning about democracy, which are central topics in the renewal of the Knowledge Promotion, the curricula for Norwegian schools (Ministry of Education and Research, 2017). The approach promotes student agency, which is also emphasized in the OECD-report *The future of education and skills: Education 2030* (2018). According to this report, one of the most important aims of education is to support students to participate in activities and influence their surroundings in a positive way.

The results from the questionnaire show that the students perceive that they give and receive acknowledgement, trust, and respect. However, fewer students experience mastery and participation in decision-making. Both mastery and participation are crucial elements for motivation (Ryan & Deci, 2017), inclusion (Meld. St. 6, 2019-2020; UNESCO, 2005) and health promotion (Antonovsky, 2012). The results of the questionnaire show an increase in the number of students who agree that they master exercises and participate in decision-making from the first to the second test-time, that is during and after round two of the intervention. This shows a possible potential of the approach applied in the current study. However, more extensive and longitudinal studies are needed to investigate this potential further.

There may be challenges with the reliability of the findings in this study. The students may not understand what is meant by the concept of ‘participation,’ and perhaps they do not remember different situations where they have been given the opportunity to influence decisions, so that their answers may not reflect the truth. The sample of the study is also limited to one school, and the sample is not randomly selected. Hence, there are challenges with the validity of the study as well, and the results may not be generalisable. Even though there are threats to the reliability and validity of the findings of the current study, results from youth surveys (Bakken 2019, 2022) confirm that there is a need for a change in schools as more and more young people experience loneliness and dread going to school. To create a health promoting learning environment, teachers must take students’ voices seriously, so that the students can experience that they have resources to influence and master their situation, which again may lead to a sense of coherence and improved ability to handle stress (Antonovsky, 2012). There is a need to investigate further how to facilitate a health promoting learning environment where students experience not only good relations, but also that they master everyday exercises, and get to participate and engage in decision making, so that they experience motivation and meaning in school.

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## References

- Antonovsky, A. (2012). *Helsens mysterium: Den salutogene modellen*. Gyldendal.
- Bakken, A. (2019). *Ungdata 2019. Nasjonale resultater*, NOVA Rapport 9/19. NOVA, OsloMet.
- Bakken, A. (2022). *Ungdata 2022. Nasjonale resultater*. NOVA Rapport 5/22. NOVA, OsloMet.
- Bang, L., Hartz, I., Furu, K., Odsbu, I., Handal, M. & Torgersen, L. (2023). *Psykiske plager og lidelser hos barn og unge*. Folkehelse rapporten. FHI.  
<https://www.fhi.no/nettpub/hin/psykisk-helse/psykisk-helse-hos-barn-og-unge/>
- Borge, A. I. H. (2018). *Resiliens. Risiko og sunn utvikling*. Gyldendal Akademisk.
- Bratholmen, N. V. L. (2022). *Flere elever fullfører videregående opplæring på normert tid*. Statistisk sentralbyrå. <https://www.ssb.no/utdanning/videregaende-utdanning/statistikk/gjennomforing-i-videregaende-opplaering/artikler/flere-elever-fullforer-videregaende-opplaering-pa-normert-tid>
- Fullan, M. (2016). *The New Meaning of Educational Change* (5. Ed.). Routledge.
- Haugseth, J. F. & Smestad, E. (2021). *Ungomdstid med smitteverntiltak: En sammenligning av unges egenrapporterte livskvalitet og tillit i Norge og Sverige 2020/2021*. BULKIS-RAPPORT 2/21, NTNU.
- Hellang, Ø. & Helmersen, M. (2022). *“På felles vei” – Helsefremmende barnehager og skoler Evaluering og følgeforskning*. NORCE.
- Helmersen, M. & Stiberg-Jamt, R. (2019). *HBS Agder: Førevaluering av tiltak for helsefremmende barnehager og skoler*. NORCE Samfunnsforskning og Oxford Research.
- Horverak, M. O. & Aanensen, M. (2019). Decreased motivation and increased mental illness among young people – a need for teaching life mastery skills in school. *The 7th European Conference on Education, Independence & Interdependence, official conference proceedings*, (pp. 239-251). <https://papers.iafor.org/submission52464/>
- Horverak, M. O. (2020). Developing resilience and life mastery skills in the classroom – a multiple case study comparing a Norwegian and Peruvian context. *The 5th IAFOR International Conference on Education – Hawaii2020 Official conference proceedings*, (pp. 31-44). <https://papers.iafor.org/submission53632/>
- Horverak, M. O. & Langeland, G. M. (2022). SAMM – A systematic approach to mastering life – the fivestep motivation method. *The European Conference on Education 2022: Official Conference Proceedings*, 21-31. <https://doi.org/10.22492/issn.2188-1162.2022.3> <https://papers.iafor.org/submission61986/>

- Langeland, G. M. & Horverak, M. O. (2021). *Hvordan legge til rette for mestring, medvirkning og motivasjon i ungdomsskole og videregående skole*. Cappelen Damm Akademisk.
- Meld. St. 6 (2019-2020). *Tett på – tidlig innsats og inkluderende fellesskap i barnehage, skole og SFO*. Kunnskapsdepartementet.  
<https://www.regjeringen.no/no/dokumenter/meld.-st.-6-20192020/id2677025/>
- Ministry of Education and Research. (2017). *The renewal of the Knowledge Promotion; General part – values and principles for education*.  
<https://www.udir.no/lk20/overordnet-del/?lang=nob>
- OECD. (2018). *The future of education and skills: Education 2030*.  
[https://www.oecd.org/education/2030-project/contact/E2030\\_Position\\_Paper\\_\(05.04.2018\).pdf](https://www.oecd.org/education/2030-project/contact/E2030_Position_Paper_(05.04.2018).pdf)
- Olsen, M. I. & Traavik, K. M. (2010). *Resiliens i skolen: Om hvordan skolen kan bidra til livsmestring for sårbare barn og unge. Teori og tiltak*. Fagbokforlaget.
- Reneflot, A., Aarø, L. E., Aase, H., Reichborn-Kjennerud, T., Tambs, K. Øverland, S. (2018). *Psykisk helse i Norge*. Folkehelseinstituttet.  
[https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2018/psykisk\\_helse\\_i\\_norge2018.pdf](https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2018/psykisk_helse_i_norge2018.pdf)
- Ryan, R. M. & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. The Guilford Press.
- UNESCO (2005). *Guidelines for inclusion: Ensuring access to education for all*.  
<https://unesdoc.unesco.org/ark:/48223/pf0000140224>

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