

# The Tröllaskagi Model: Teaching and learning at the Menntaskólinn á Tröllaskaga upper secondary school



Article in Icelandic



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When the upper secondary school at Tröllaskagi (Menntaskólinn á Tröllaskaga, MTR) was founded in 2010, it was neither clear how the school would be organized nor how the school would develop. The aim behind the opening the school was to strengthen and diversify educational opportunities in the area of Tröllaskagi, located in the northern parts of Iceland. It was clear that not enough students in the area were finishing elementary education to fill this new upper secondary school. The first thing was to look at different ways of achieving just that.

In 2008, a new education act was passed by the Parliament which led to the development of a new curriculum for upper secondary schools, which took effect in 2011. Thereby it was possible to develop new types of teaching and learning in this new school. It became possible to link the present times more strongly into the curriculum and focus on the society that would be waiting for the students upon their graduation. It was, therefore, necessary to look at different theories in education and to look at what might support the independence of the students in such a way that they would take ownership of their own education.

A specific methodology of teaching and learning has developed over the years since MTR was founded, which was named “the Tröllaskagi Model”, and has come to characterize all

the school activities. The school practice and the model have been introduced in many parts of Europe and in Iceland, including the European conference EcoMedia, held at the school in 2018.

## Vision

To begin with it was decided to formulate concepts or values that would guide the school practices, which would serve as both its vision and the basis on which the school would function. The idea was crystallized in the school's motto: Initiative - Creativity - Courage. Each term was led by a special approach which can be defined in the following ways.

*Initiative:* Initiative in teaching methods, learning methods, organization and daily practice. To fulfill this goal, a course on entrepreneurialism was placed at the heart of all study lines in the school in order to encourage students to adopt an entrepreneurial attitude toward solutions, project work and approaches to problem solving. It is recommended that students take the course during the first term or as early as possible, the idea being that the students would be able to use initiative and entrepreneurial approaches throughout their study.

*Creativity:* Creative teaching methods, learning methods, organization, and daily practice. The idea was that the arts would help train creativity with the students, better than most other subjects, and subsequently, a course on the introduction to the arts was introduced into the core study programme, where the students would work on paintings, photography, and music. An emphasis was placed on ways to create solutions, not only in one way but in many, and that the work process and creative expression is sometimes more important than the final product.

*Courage:* It was clear that old habits die hard and in order to travel off the beaten track, a considerable amount of courage would be required to change the programmes, learning methods, teaching methods, project work, assessment and so on. Courage was given a leading role and even though not everything led to the desired outcome, people were encouraged to not give up and instead try to learn from their experience, build on what was done well and show courage to experiment with their practice, work processes, and methods.

In the decade since the school was established the school motto has become its vision. Despite varying interests and projects, the school's path has been clear, and the common vision has strengthened its daily activities and practice, and this new energy has been useful in developing the school for the future.

# Distance learning and teleworking

Whereas shortage of staff in rural areas could be an obstacle to promoting diverse studies, opportunities, and possibilities, it was clear that blended and distance learning would form a constant factor in the school activities. By bringing in more non-local students it became possible to offer greater diversity in the studies and strengthen the administrative efficiency of the school. When it was clear how many local students had chosen different subjects, the study groups were filled with distance learning students, which thereby secured the operational foundations of the school. The school has emphasized the equality of distance learning students and local students by providing equal access to the support services of the school. There is no difference in the hiring process of staff members based on whether they are working from a distance or locally. All enjoy the same terms of employment and salaries.

The educational approach in the studies lies in the spirit of collaborative learning, regardless of whether the program is offered locally or remotely. This means that there is no difference between distance learning and on-campus learning. The same demands, project work and return dates apply to all. This has been very successful, and the on-campus learning has not been undermined when bad weather or blocked roads have prevented students from reaching the school. The arrangement also proved useful when on-campus learning was disrupted by COVID regulations.

An effort is made to create practical timetables for staff members in such a way that they do not have to travel for many days to school or by improving cooperative studies. All staff meetings are conducted remotely and the same is the case with many meetings of committees and councils.

## Information technology



The school focuses on the systematic utilization of information technology, both to achieve the goals concerning distance learning and remote working, as well as in the work of local students. More than one hundred computer programs, apps and other tools are used in the school, both in the studies as well as in other daily practices. The school offers systematic training in the use of these tools, which are in constant development, though with emphasis on addressing the subject matter presented through the tool, rather than the tool itself.

## **Teachers' professional development**

To sustain knowledge, improve and develop the school practices, the school participates in a variety of cooperative projects. The projects are both Icelandic, Nordic and European, in addition to projects that extend to other areas. This way there is constant professional development in place which improves teaching and learning. A part of these projects take the form of grants for studies abroad, and both teachers and support service staff are provided with opportunities to attend courses in Iceland or abroad. They are encouraged to do so, and an emphasis is put on applying for grants which make it possible for them to travel and get familiar with the best practices in Europe and other parts of the world. All staff members have traveled abroad, studied with teachers in other countries, reflected on their practice with them, shared their knowledge and learned from them. It has been very empowering for the staff members who have come to realize the strengths in their work.

Besides this, the staff takes part in professional development within the school through professional meetings which are held every two weeks, where they share their knowledge, discuss methods, and develop the school programmes and procedures. It can therefore be stated that a professional learning community has been created in the school.

## **The studies**

The current National Curriculum of upper secondary education, from 2011, provides flexibility in school practices as well as offering each school diverse opportunities and independence in shaping the schooling in view of their unique characteristics, the needs of students and the local community. The centralization which characterized the former curriculum has been replaced by a more decentralized approach. The curriculum of MTR was formulated with these factors in mind. As previously noted, the school's motto, namely, initiative, creativity, and courage, became the major themes of the daily practices, which at the same time accounted for the central pillars of education specified in the national curriculum. It is estimated that the time to complete the matriculation examination is three years, with graduation at the third qualification level.

According to Education Act no. 92/2008, each secondary school must formulate its own

study line descriptions which are forwarded to the Directorate of Education for confirmation. The study lines can vary from one secondary school to another. In fact, it can be claimed that the Menntaskólinn á Tröllaskaga has developed one study line with different specializations. It means that of the 200 credit points there are 86 credit points of core studies that all students must complete. The specialization entails 74 credits in social sciences and humanities, natural sciences, sports and outdoor activities, as well as the arts. In addition, the students receive 40 elective credits which they can use toward their specialization or they can choose more diverse courses that might appeal to them. This arrangement is however not a formally established study line.

The school offers nine established study lines, where the core, specialization and elective courses form a study line. In addition to the five lines mentioned above, the school offers individualized programmes where only the core is defined, and students structure their own specialization in cooperation with the school. Then there is a 90 credit basic study line, with graduation at the second qualification level, matriculation programme at the completion of an internship and a special education line.

Despite its emphasis on freedom in the selection of courses and flexibility of study programmes, the school upholds a specific structure and organization. Projects are centered on weekly-based units where students receive assignments and other information concerning the studies on Monday mornings which, without exceptions, must be handed in no later than Sunday evening. Extended deadlines are not on offer. It is therefore possible to offer weekly formative assessments, and the students can organize project work on Monday mornings and manage their schedule accordingly. Certain classes are specified as “workshop time” and are not assigned to any particular subject, but rather contribute toward the students’ own work. The students control which subject they work on at any given time, where they have access to teachers for instruction. In this way, the management of their studies is largely transferred to the students’ themselves.

From the onset, each semester has been divided into two parts, along with a so-called midterm week, where everyday schoolwork is paused and teachers work on the midterm assessments while students partake in week-long courses that address diverse topics. Often, external teachers and instructors are invited to the school to bring in new knowledge and diverse perspectives, which has involved both international and Icelandic individuals. These projects have proven valuable for the school and in this way better linked the school practices with society.

The teaching platform Moodle has been used from the beginning. It was chosen because it offers ways to approach diverse topics, for example, an examination and project bank, and a readspeaker for dyslexic students, among numerous other functions. Moodle is a comprehensive system though without limiting the development of the school practices, but

it is worth pointing out that there are other similar such platforms.

The concept of gamification was integrated in English in order to encourage students to become more actively engaged in their studies (Dichey & Dicheva, 2017). The experience with gamification has been used in conjunction with varying teaching methods in other subjects. A great advantage of the Moodle platform is that it offers tools that support the use of gamification for teaching and learning.

The school offers flexible assessments and students can often choose how to approach their projects, provided that they clearly present their knowledge of the subject at hand. In this way, the school seeks to meet the needs and diverse strengths of students and offer them an opportunity to shine to the best of their abilities. The school uses continuous assessment, which in most cases also entails formative assessment. The assessment is carried out in relation to dozens of subjects over each semester, where the final examination is part of the measurement. This is not to say there are no examinations at the school. They are one aspect of the assessment but do not play a major role in it.

As stated above, the school seeks to facilitate the students' creativity, provide autonomy, and encourage students to take responsibility for their learning. Strengthening those abilities helps students prepare for their future studies and work in the best way possible. Þuríður Jóna Jóhannsdóttir (2017) conducted a study that focused the school practices of MTR. The study looked at, among other things, the specific aspects that characterize the model developed at MTR. The study underscores that the school's aim is to aid students in becoming more independent, creative and that MTR impacts its near-environment in many creative ways. The school's role is to empower both students and society. The findings show that the MTR model is well suited to facilitate equal opportunities for all students. A clear framework with regard to particular aspects of the school practice and assessment support literacy of the school environment and their ability to stay true to their plans and successfully reach their goals. The findings therefore indicate that the model which came to be on the school's inception, and described in his article, has proven fruitful and delivered successful outcomes.



## **Innovation in programmes and courses**

The current national curriculum provides great flexibility for schools to develop their curriculum. This flexibility has been fully used by the teachers who have turned out to be an endless source of ideas for new programmes and courses. Many of those ideas have turned out well and have found their permanent place within the school's syllabus. Furthermore, the students have come up with suggestions for new courses that have been further developed. This way the curriculum is in constant development in accordance with the vision of the school. Even further, students can form their own courses in cooperation with the school's specialists, and learning and assessment procedures developed in cooperation between the teacher and the student in view of the appropriate qualification level. At the same time the studies have frequently been linked to the world of work, the arts, and the local social life. Icelandic, as well as foreign specialists, have been involved with the programmes in a variety of ways.

Considering the changes which are now taking place in our society and on the employment market, it is essential to provide flexible studies, but nevertheless hold tight to certain elements of basic education and principles, which are reflected at the heart of the curriculum and various programmes. At the same time emphasis is put on strengthening the students' ambitions, because this is the foundation for their competence to live and work in

today's society and the future.



## Refere:

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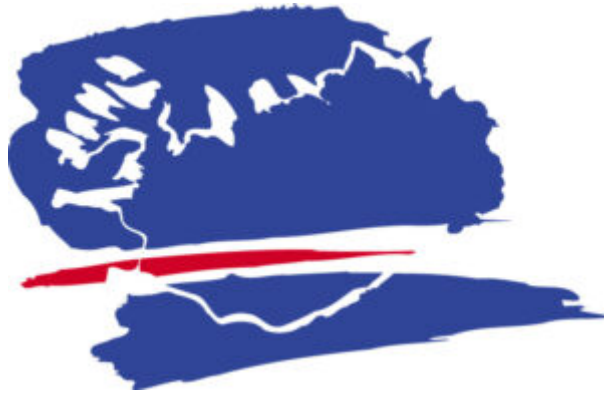
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Ljósmyndir eru úr myndasafni skólans.





MENNTASKÓLINN Á TRÖLLASKAGA WAS  
NOMINATED TO THE ICELANDIC  
EDUCATION AWARD IN 2020.

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**SKÓLAPRÆÐIR**  
TÍMARIT SAMTAKA ÁHUGAFÓLKIS UM SKÓLAPRÖUN

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