



# Mentoring in<br/>Austrian School<br/>SystemsState of the art and<br/>future scenarios

Transnational Research



GTN SOLUTIONS





## **Cooperation Partnerships in School Education**

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Result 1: Mentor 2.0 Curriculum

### REPORT

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Mentoring in the Austrian School System State of the art and future scenarios

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#### Introduction

This publication collects the results of research carried out in Austria to analyze the state of the art and opportunities for modernizing the national education system, particularly with regards to the paradigm shift in teachers' role, from knowledge transmitters to mentors for their students. The research work was conducted through desk research, surveys and focus groups with primary, lower and upper secondary school teachers and students, and focused on the country's regulatory context and latest policy developments supporting mentoring in formal education, as well as teachers' and students' perspectives about the needs and gaps in the preparation of educators towards a mentor's role. The analysis covered multiple topics, relevant to support the desired paradigm shift, such as:

- competences and tools for strengthening students' self-motivation;
- competences and tools for discovering and managing talents;
- current practices to foster team building at school, in the classroom and during outdoor learning;
- available and needed digital tools to enhance inclusive education;
- the school's role in the circular economy;
- current practices and needs to foster the cooperation between schools and external environments, particularly employers;
- competences, practices and tools for preparing students to make educational and professional decisions about their future.

Therefore, this report aims to provide a detailed picture of the missing tools and competences for the enhancement of mentorship in formal education and, ultimately, to select the elements of the existing *Mentor Programme*, good practice developed by the Polish Center for Innovative Education and enrich it in order to develop **a new innovative curriculum for teachers** to be transferred to a digital environment through the Mentor 2.0 project.







#### **1.** Mentoring in School Education: The Austrian national context

This chapter analyses Austrian regulations and the latest policy developments that directly or indirectly support mentoring structures in the national formal education system. Particularly:

- direct support, such as measures directly addressing the enhancement of mentoring tools and skills in schools, can be found in the *National Recovery and Resilience Plan*, envisaging mentoring programs and the creation of a digital platform for online mentoring and training of students of lower and upper secondary school, analyzed in section 1.1 of this publication;
- indirect support can be found in multiple measures and guidelines addressing transversal topics that are essential to support effective mentoring programmes in school environments, such as:
  - a. students' soft skills development (section 1.2);
  - b. digital tools enhancing inclusive education (section 1.3);
  - c. school's role in circular economy and practical environmental education (section 1.4);
  - d. cooperation between schools and external environments, particularly employers (section 1.5).

The Austrian Ministry of Education decides on the general curriculum content in Austria. Experts, such as specialist didactics from universities and teacher training colleges or department teachers are included in its development. At a later stage of development, social partners, school partners, state governments, chambers or religious associations are also involved.<sup>1</sup>

In Austria, the Pedagogical University Colleges are responsible for developing concrete pedagogical content. Preliminary as well as continuing teacher education is done in Austria by the Pedagogical University Colleges. There are 9 public Pedagogical University Colleges in Austria, in addition several private pedagogical institutions exist as well. One public Pedagogical University College is in charge of teacher education per state.

For teachers in compulsory schools (primary schools as well as lower secondary schools), being state teachers, it is obligatory to work and prove their continuing education. This has to be done in a total of 15 hours per school-year. This rule does not apply to Federal teachers. Federal teachers teach in academic schools (lower secondary schools) as well as upper secondary schools.

<sup>&</sup>lt;sup>1</sup> General curriculum in Austria, <u>https://de.wikipedia.org/wiki/Lehrplan</u>





Obstacles for using Mentor 2.0 at schools may be the current legal regulations: There is no obligation for Federal teachers, i.e., teachers in Upper Secondary education for continuous education. Also, the school principal in Federal schools is not allowed to prescribe their teachers education measures such as Mentor 2.0. Technically, school principles of Upper Secondary schools are responsible for pedagogical leadership among their teachers, the teachers are employed by local authorities though, hence principals have no far-reaching authority to issue directions. This could be changed by a change in laws.

In general, cooperation between teachers is not widely seen as important and necessary in Upper Secondary schools. Many are not used to cooperating with teachers from their own school nor from other schools. There are specific offers for continuing education for teachers though that specifically target training and exchange between teachers across institutions.

#### **1.1 Mentoring in the National Recovery and Resilience Plan**

Austria's Recovery and Resilience Plan 2020-2026 (Österreichs nationaler Aufbau- und Resilienzplan), published in 2021, is focused on climate protection and digitalization. Moreover, Austria will invest in education, research, the economy and sustainability.

Objectives of the plan are to 1) contribute to climate protection, 2) foster digitalization, and 3) support education and research. The estimated total cost of the NRRP is  $\leq$ 4 499 million, whereas the maximum amount of grants available for Austria is  $\leq$ 3 461 million, hence Austria will supply amounts exceeding the EU support by their national budget.<sup>2</sup>

There is no specific mention of "mentoring" in Austria's Recovery and Resilience Plan. However, digitalization in education is one of the focus points. One goal is to provide pupils in lower secondary school with digital devices, hence providing access to IT-supported lessons in school for all children, including the ones coming from low-income households.

In 2020, the European Council recommended Austria to ensure equal opportunities in education and more digital learning. The Council recommends lifelong learning programmes, up-skilling, and early childhood education. In 2020, about 10 % of students under 15 years of age had no access to a digital learning facility. Part of the digital recovery component of the plan is "digitalization of education", "education" is also a part of the knowledge-based recovery component.<sup>3</sup>

 <sup>&</sup>lt;sup>2</sup> Federal Ministry Republic of Austria, Finance: Austria's plan for the EU Recovery Fund <u>https://www.bmf.gv.at/en/press/press-releases/2021/May-2021-1/Austria-s-plan-for-the-EU-Recovery-Fund.html</u>
 <sup>3</sup> Think Tank, European Parliament: Briefing - Austria's National Recovery and Resilience Plan <u>https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/729465/EPRS\_BRI(2022)729465\_EN.pdf</u>





#### **1.2 Soft skills development**

For teacher education a development process to standardize curriculum was undertaken several years ago. Teachers that are in their initial teacher training have to some extent undertake education that also relates to soft skills however not within a priority within the curriculum. During further teacher education it is possible to do additional qualification on this behalf - this relates to overarching competencies that are considered to be soft skills like digital competencies as well as personal and social competencies. For further teacher education on the digital agenda a network has been created in 2016: eEducation Austria - this network is in charge of strengthening digital skills of teachers. eEducation is located at the Pedagogical University College Upper Austria and has a national mission to provide appropriate training for teachers throughout all Pedagogical Universities in Austria.

For strengthening social and personal skills of teachers, an organization was put in place in the year 2011: <u>https://www.oezeps.at/</u> - Austrian Center for development of personal development and social Learning. This initiative has developed many resources and programs to help teachers work on their individual competences but also to transfer this knowledge into classroom work.

ÖZEPS (Austrian center for personal development and social learning) has evolved to hepi.at - center for development of personal competences. It is located at the Pedagogical University Upper Austria as well. The main work of this center is (<u>https://hepi.at/home</u>) focused on personal development, stress management, social competencies, and self-reflection. HEPI is the abbreviation of Health - Education - Philosophy - Innovation. HEPI offers training on this agenda for all schoolteachers: <u>https://hepi.at/aktuell/veranstaltungen</u>

#### **1.3 Digital tools in school enhancing inclusive education**

Out of the 9 Federal Pedagogical University Colleges, two have departments that work especially in the field of inclusive education. Preliminary as well as further teachers' education and research is being done especially in the department of Inclusive Pedagogics at the Pedagogical University College Upper Austria: https://ph-ooe.at/ph-ooe/ueber-uns/institute. The institute has close ties to the Johannes Kepler University in Linz. Here the IKT-Forum which puts a special focus on using digital tools in inclusive pedagogy has a yearly conference where teachers participate: <a href="https://www.iktforum.at/index.php?id=2&no\_cache=1">https://www.iktforum.at/index.php?id=2&no\_cache=1</a>.

Due to the fact that the Pedagogical University College Upper Austria hosts both the Institute of Inclusive Pedagogy as well as eEducation - there are several cooperation projects to put a focus on this theme.







eEducation: Primary goal of the initiative eEducation Austria of the Federal Ministry of Education is to advance digital and ICT-based competencies throughout all schools in Austria - starting from Primary schools to Upper Secondary schools.<sup>4</sup>

The initiative was put in place in the year 2016 and has as a main goal the focus of strengthening digital skills of teachers so they would be able to use digital tools in classroom situations. This initiative has developed quite successfully and has reached a number of almost 4000 participating schools throughout the country and all school levels. Two yearly conferences showcase the use of digital media for classroom work and communicate on the central strategies related to the digital agenda. The Federal Ministry of Education always takes part with new information and project results. Over 80.000 digital activities have been documented in a central system allowing for further analysis of how schools develop. Main focal points are in general teachers' digital qualification, enhancement of classroom work transferring digital competences to students and organizational development.

#### 1.4 School's role in the circular economy

On a global scale, the Agenda 2030 for Sustainable Development includes 17 Sustainable Development Goals (SDGs). It was adopted by the 193 UN member states and came into effect in 2015. The Agenda aims at improving the perspectives of all people, globally: to eradicate poverty, protect the environment and to ensure sustainable economic activity. Education, science and research play an essential part in the implementation of the Sustainable Development Goals (SDGs). The Austrian Voluntary National Review of Progress Report contains a range of national initiatives promoting sustainable development in all its dimensions throughout the education, science and research sector. One of the three main topics that have received special attention is "Digitalization". This includes online teaching, which was especially important during the COVID-19 crisis to ensure continuous schooling for all and to support students and parents.<sup>5</sup> Although resources for electronic devices and internet connectivity are needed, in the big picture, digitalization saves resources such as paper for print-outs and allows processes to be carried out with less physical complexity. Also, it prevents some journeys and travels from being necessary.

The ÖKOLOG programme has been established as a programme of the Ministry of Education for environmental education in schools and pedagogical universities. More than 600 schools in Austria are ÖKOLOG schools at the moment, as well as 10 pedagogical universities.

<sup>&</sup>lt;sup>4</sup> eEducation Austria - digital competencies for all, <u>https://eeducation.at/en/</u>

<sup>&</sup>lt;sup>5</sup> New Austrian Transatlantic Perspectives: Austria and the 2030 Agenda in Education

https://www.austrianinformation.org/education-science-research/austria-and-the-2030-agenda-in-education Wikipedia: Goals for Sustainable Development https://do.wikipedia.org/wiki/Zialo\_f%C2%PCr\_pachbalting\_Entwicklung





The programme's vision is for the school to be an ecologically, socially and economically sustainable designed living space. All parties involved, from teachers, students to school staff are meant to participate in and take responsibility for it.

The aim of the ÖKOLOG program is for schools to become active in the field of environmental education. Concretely and practically, measures such as saving energy, avoiding waste, ecological school grounds, healthy snacks, etc. are meant to be taken by schools and their stakeholders. <sup>6</sup>

In 2014, the Federal Ministry of Education in Austria Basic issued a decree about "environmental education for sustainable development", directed to schools and pedagogical universities nationwide. It pledges educational institutions to include environmental education in their teaching and general attitude.<sup>7</sup>

#### **1.5 Cooperation between schools and external environments**

Cooperation's between schools and external environments like companies vary but have been initiated mostly in lower and upper secondary schools. Especially schools that take part in digitization projects (there is a school type in Austria called digiNMS - digital middle schools) have connections with other networks (for example coding societies like CoderDojo's<sup>8</sup>) as well as companies that show interest in future employees.

The school type of vocational schools which are part of the dual education system in Austria have strong ties to companies related to the school's focus. Students in these schools have to work in companies most of the year during their education therefore also being the connecting element.

Upper Secondary Schools cooperate with mostly local businesses because of trainee-programs that are offered by schools and are compulsory to certain school types (tourism schools and technical schools). At these schools' sponsorships of larger companies that provide schools with technical equipment are not uncommon.

<sup>&</sup>lt;sup>8</sup> <u>https://linz.coderdojo.net/</u>



<sup>&</sup>lt;sup>6</sup> ÖKOLOG: Austrian network for school and environment

https://www.oekolog.at/

<sup>&</sup>lt;sup>7</sup> Federal Ministry of Education, Science and Research: Basic decree environmental education for sustainable development

https://rundschreiben.bmbwf.gv.at/rundschreiben/?id=680



#### 2. Teachers-Mentors at School: Surveys

This chapter collects the results of a survey administered online from June to September 2022 to primary and secondary schools' students and teachers in Austria. The survey was designed by the MENTOR 2.0's transnational project team, led by the Center for Innovative Education, and reached over 700 teachers and students in Austria, Greece, Italy, Poland and Spain.

In Austria, 68 students and 66 teachers contributed to the research, offering their perspective on the needs of educators and learners in terms of training and tools to support students' growth process.

#### 2.1 Survey Analysis: Teachers

**Composition of the group.** The largest part of the respondents to the survey were upper secondary school teachers (40%), followed by primary school teachers (33%), lower secondary school teachers (20%), and other teachers (7%).

#### Question 1

You are a: [1] primary school teacher, [2] lower secondary school teacher, [3] upper secondary school teacher, [4] other.







	Question 3: Could you identify your strengths and/or any particular talents that distinguish you in your role as a teacher?
Questions	Question 4: If you ticked "Yes" in the previous question, provide a minimum of
3-4-5	three examples. Question 5: If you ticked "No" in the previous question, what talents/strengths
	would you like to develop in yourself as a teacher? Name at least three.

This set of questions is aimed at assessing teachers' self-awareness competence, particularly the ability to recognize their strengths and talents.







In relation to question no. 3, the majority of respondents (92%) stated they can identify their strengths and/or any particular talents distinguishing them in their role as teachers.

Question 4: When asked to provide a minimum of three examples, the following results were registered:

- communication skills, being able to listen
- patience, tolerance, calm
- creativity
- musical skills
- leadership skills
- empathy, understanding, respect
- resilience
- cooperation with co-teacher and parents
- humor, spreading a good mood, quick wit
- reliability
- problem solving skills
- ability to convey teaching content in a simple way, reduction of language to a minimum level
- IT skills, building a digital infrastructure, using new media in lessons
- talent for improvisation; spontaneity
- strengthening class cohesion
- ability to have an overview of students
- assertiveness, determination
- perseverance
- Spontaneous finding of solutions
- pointed formulations
- engagement, enthusiasm, enjoyment of the job, motivation
- Expertise values
- Balance
- Curiosity
- Flexibility, adaptability
- control
- time management, organizational talent
- Being a team player, team spirit, ability to compromise
- ability to reflect, reflection
- Justice
- media competence







Question 5: Those who answered "No" to question 3, provided the following answers as to which talents or strengths they would like to develop (min. 3).

- to promote creative, solution-oriented critical thinking, to promote artistic subjects and promote daily exercise in schools
- "To present connections/associations more generously, away from rigid curriculum thinking. Prepare more for the 'real' life"
- more pedagogical knowledge
- "I answered yes, but would still like to work on my time management"



This set of questions aimed at analyzing the needs of teachers in terms of learning opportunities for improving their educational practices addressed to develop their students' soft skills and build cohesive communities inside their classrooms.

Question 2: The following support areas and tools were mentioned in the surveys:

- interdisciplinary teaching
- personal relations to students
- support teachers
- internet access
- material and ideas
- possibility to try out things and have success
- cooperation among teachers
- diverse student groups
- less exam pressures
- Learning rooms that enable individual work as well as in the classroom
- reflective thinking
- leadership skills
- communication skills
- fewer students in classes/smaller student groups
- skills in dealing with students struggling with their mental health, psychological and social support for struggling students
- more time allocated for the development of these skills







Question 6: During the year before the survey, the majority of the respondents (82%) have not participated in training courses on building student teams, working in groups, or classroom management.

Question 7: Only 18% of the surveyed teachers have participated in a relevant training course, particularly on leadership, classroom management with team building exercises, competency-oriented planning, gender-appropriate training, individual learning support, creative work with children, mentoring Master's course, team training - also as a trainer, quality development, team building within the school, personality development, social skills, political education.

# Question 8 On a scale from 1 to 10 (where 1 is the least and 10 is the most), indicate to what extent you need to develop your skills to effectively manage student teams.

The Graph below provides an overview of the score indicated by the respondents.

Graph 2. Need for skills to effectively manage student teams: participants' selfassessment



Questions 9-10 Question 9: On a scale from 1 to 5, where 5 is the highest value and 1 is the lowest, indicate what you think should be developed in students first. Question 10: Other? What?

Question 9: Respondents were asked to rate from 1 to 5, the following items:

- understanding the importance of values (e.g., solidarity, truthfulness) by promoting virtuous models of behavior that represent them;
- building social relationships based on mutual respect;
- strengthening students' self-esteem based on their strengths;
- stimulating and increasing intrinsic motivation;
- creativity, innovation and entrepreneurial skills;
- the ability to think critically, logical reasoning, the ability to argue and interpret;
- respect for the environment and active pro-ecological attitudes;
- the ability to recognize and further develop one's talent and uniqueness;







• integrating cultures other than one's own, tolerance towards others and openness to change.

As shown in the graph below, respondents consider the following focus areas as the most important to be developed in students:

- understanding the importance of values (e.g., solidarity, truthfulness) by promoting virtuous models of behavior that represent them (considered important or very important by 79%)
- stimulating and increasing intrinsic motivation (considered important or very important by 79% of teachers, with the highest value of 46% considering this very important)
- the ability to think critically, logical reasoning, the ability to argue and interpret (considered important or very important by 74%)
- building social relationships based on mutual respect (considered important or very important by 71%, with the highest value of 46% considering this very important)
- the ability to recognize and further develop one's talent and uniqueness (considered important or very important by 67% of teachers)

Question 10: Other areas that were mentioned are:

- Ability to "judge" oneself and others increase critical ability/acceptance that one is not the best/the best everywhere
- Reading and text comprehension, body awareness movement, development of serenity
- Understanding of the world and the power of consumerism and the media mindfulness
- "Taking responsibility for your own education (not: I can't motivate myself
   motivate me, please)"

# QuestionsQuestion 11: On a scale of 1 to 5, where 5 is the highest value and 1 is the lowest,<br/>indicate what, in your opinion, should be the most important in everyday work with<br/>students?<br/>Question 12: Other? What?

Question 11: The respondents were asked to rate from 1 to 5 the following items:

- Preparing students for competitions;
- Improving relationships with peers and cooperation skills;
- Increasing students' self-esteem;







- Strengthening of motivation;
- Developing effective learning skills and eliminating learning failures;
- Skills development in educational projects;
- Implementation of the core curriculum;
- Creating a school community.

Respondents consider the following focus areas as the most important in everyday work with students:

- Strengthening students' motivation (rated 5/5 or 4/5 by 88% of the respondents);
- Improving relationships with peers and cooperation skills (rated 5/5 or 4/5 by 74% of the respondents).
- Increasing students' self-esteem (rated 5/5 or 4/5 by 71% of the respondents);
- Developing effective learning skills and eliminating learning failures; (rated 5/5 or 4/5 by 64% of the respondents)
- Creating a school community. (rated 5/5 or 4/5 by 61% of the respondents)

Areas that are seen as least important by the surveyed teachers are

• Preparing students for competitions (rated 1/5 or 2/5 by 67% of the respondents, whereas 41% rated 1/5);

• Implementation of the core curriculum (rated 1/5 or 2/5 by 35% of the respondents);

Question 12: Other areas that were added by respondents are:

- Creation of a class community
- "Listen to the child, perceive it and weigh up strategies carefully. For the child, support always means: the way I am, I am not good enough."
- "Humor! Everything is easier when you have fun!"
- "Give freedom to experience and develop one's own talents with relish; Eliminate "anxious subjects" and bureaucratic hurdles or provide assistance. We lose too much passion and motivation for (CO) DESIGNING and (CO) WORKING in young people!"
- "Creating a work environment & curriculum that allows students to practice on their own - with feedback on the mistakes"

# Question 13 Please indicate examples of mutual support and teacher learning that you use because you find them effective and necessary.

This multiple-choice question invited respondents to select all the applicable mutual support and teacher learning examples among the following options:





- developing curriculum work plans;
- developing lesson plans;
- preparation of teaching materials;
- test development;
- peer observations;
- joint project management;
- exchange of experiences;
- mutual motivation;
- sharing the knowledge gained during the training;
- disseminating examples of good practice;
- exchange of materials and teaching aids;
- jointly organizing and conducting activities (trips, contests, events);
- exchange of information about students and class teams.

Most of the teachers interviewed (56/66) consider the exchange of experiences among teachers to be a fundamental mutual support practice, followed by joint project management and disseminating examples of good practices (44/66 each), the joint organization and conduction of activities (40/66), preparation of teaching materials (42/66), exchange of materials and teaching aids, exchange of information about students and class teams, mutual motivation (39/66 each), sharing the knowledge gained during the training (37/66). Around two thirds of respondents mentioned peer observations and joint development of curriculum work plans. The practices less employed by the respondents are developing tests and lesson plans (less than a third of respondents mentioned them).

Question 14: How often in your lessons do you use ICT (Information and Questions Communication Technologies)? 14-15 Question 15: In which context would you most likely like to use ICT in your lessons?

#### Question 14:

47% of the surveyed teachers employ Information and Communication Technologies every day, 33% once a week, 11% once a month, 6% of the teachers use it less than once a month, 3% never use it.

#### Question 15:

In relation to the context in which the respondents would most likely wish to use ICT in their lessons, the following ICT applications were mentioned.



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Some specific examples given as to where or how ICT is used:

- Show Geo-Gebra examples on the screen, for independent practice in mathematics
- upload homework texts to teams and offer the opportunity to hand them in there
- provision of Links, tutorial videos
- learning/educational platforms
- for individual learning and the provision of materials depending on the learning level, self-directed learning
- for ePortfolio work and for creative use as a tool for creating your own products
- In the form of Flipped Classroom
- assignment of tasks
- educational games
- laptop classes; tray classes
- lesson preparation, lesson implementation, lesson post-processing,

Other responses include working specifically structured according to the tasks, as a tool that is always available, but not a must; in free practice periods and that it is in the curriculum anyway.

There's a broad spectrum as to *how often* ICT is used in class - from "everyday" to "so far I have rarely used it" and "preferably not at all".

The majority of answers lean towards using ICT often. Examples are "I use ICT all the time in the classroom", "I use it in every lesson", "flexible every day" or "for everything". Others use it "when required", "situational" or "if necessary".

Several respondents mention they use ICT in a supplementing/supportive way. Some responses are:

- Accompanying the lesson, every lesson as a supporting tool
- In connection with the used textbooks
- as daily support and underlining of my teaching
- as a consolidation of content already learned or development/deepening of known content

#### Noteworthy individual responses:

Statements critical of the use of ICT:

• "ICT should be used in such a way that no more time is wasted on formal, banal "click work". If ICT creates more problems, wasted time and lack of







freedom than reducing them, then ICT is counterproductive. That is very often the case. People must be the focus, not the ICT tool."

• "At the basic level, working with analogue material (haptic experience, basic motor skills) is much more important."

Statements in favor of their use of ICT:

- I can use it as I imagine: assistance also at the weekend also via online sessions with the help of "teams"
- I have been using ICT purposefully for years.
- even more efficient?

The need for sufficient IT infrastructure is mentioned. Devices must not be too old and there's a need for "more and better IT equipment".

Question 16: In your opinion, does the school equip students with practical Questions knowledge and skills needed to choose the educational and career path? 16-17 Question 17: If you ticked "Yes" in the previous task, list which ones.

> Question 16: 55% of the surveyed teachers believe that schools do provide students with the knowledge and practical skills needed to choose their educational and professional path.

Question 17: The arguments for the positive answers were mainly related to:

- Possibility of computer use
- logical thinking and reasoning, application and career orientation, promoting your own strengths
- Multiculturalism and especially in the vocational field a good preparation for future professions
- Holistic lessons with personality strengthening
- Reflection in KEL talks
- Economic school, but with a wide range in different areas
- Working with tools like MS Teams
- Dealing with computers and programs, soft skills, internship, taster, projects...
- especially IT, working in teams, time management
- Good basic basis (digital and commercial general knowledge) to develop further.
- good general knowledge, imparting values, good foreign language lessons
- Trial days, visits to job fairs, expert visits, etc.
- Cooking lessons, physics: dealing with dangers, mathematics: reading train schedules, being able to tell the time, German: writing a CV and application letter, career orientation







- "Yes, if humanistic and cultural education remains a foundation of our educational system, then this type of education can achieve an openness and personal freedom in young people that enables a certain freedom of choice in life. This value of education is crucial for a functioning democracy. That must not be sacrificed to an apparent capability for productivity education. Education must be independent. There must also be the option of rebelling against social and economic conventions and constraints and going your own way. Not the ability but the independence of the citizens is decisive for the continued existence of the free European social system."
- Vocational school good chances and wide opportunities for students, PH good basis for the teaching profession
- "After my school, my students know whether they have definitely decided on computer science or not"
- Lesson examples adapted to everyday working life
- Mathematics, German in elementary school

Questions<br/>18-19Question 18: Do you do practical environmental education projects at school, such<br/>as discussing with students how to use less paper in your lessons?<br/>Question 19: If you ticked "Yes" in the previous task, provide examples.

Question 18: 68% of the respondents implement practical environmental education projects at school.

Question 19: Common examples for the projects and measures mentioned are

- paperless lessons/classroom
- Waste prevention/recycling and waste separation in the classrooms
- copy worksheets on the front and back
- print less
- using scratch paper, save paper
- digital submission of homework; digital worksheets; use of digital documents instead of paper printouts
- use of tablets or computers
- Distribute information and worksheets online, flipped classroom
- Projects on the subject of waste separation/waste avoidance, sustainability, animal welfare, climate protection, ....

Some other examples that were mentioned are:

• towel paper consumption is calculated per day and class, lights are always turned off during breaks; devices are measured according to power







consumption

- Membership of the ÖKOLOG school
- Barter market, recycling art, visits to supermarkets and taking in regional goods on offer...
- Responsibility subject: 3 major chapters of responsibility for myself, for my fellow human beings, for the environment
- use of public transport for school events
- Use natural materials, e.g., instead of plastic, etc. in class
- workshops, project days
- footprint etc. is subject of the lesson.

Question 20: Is your school making strategic changes to enter a closed loopQuestions20-21Question 21: Justify your choice.

Question 20: 24% of the respondents stated that their school is not making strategic changes towards a circular economy, while 76% of the surveyed teachers identified strategic changes in their schools.

Question 21: The reuse of schoolbooks and school supplies is mentioned several times by respondents, also recycling initiatives, waste separation, avoiding plastic/sparing use of material like not using covers or binding for books and notebooks and saving electricity, heating and water by using them more sparingly.

Other initiatives that are mentioned:

- we are ÖKOLOG (ecology) school
- classes kept clean, care is taken to "import" little rubbish into the classes
- Different steps were taken, especially in the field of education. It is not lived as an ideal, we still often live very lavishly, meat is offered every day in the afternoon care, ...
- Upcycling in handicraft lessons, copies are saved, old notebooks as creative notebooks, less power consumption through conscious action
- training energy detectives, ...
- collection of pet bottles, try to get a PV system
- flush the toilet with the economy button
- new school building with solar technology, upcycling (e.g., in art classes, music classes, etc.)
- submission of the annual plan in digital form
- Climate action days, water in reusable aluminum bottles instead of juice in







PET bottles

- Coordination of lessons with public transport, own coffee mugs, etc.
- Wool Vests are collected together and used for a work piece. After washing their hands, each child takes just one piece of paper from the sink.
- Renewable Energy Workshops!
- life education, education close to life

There are also critical voices who don't detect sufficient strategic chances in their school:

- Unfortunately, even the waste separation is the responsibility of the teachers, no waste separation planned in the school, no paper saving measure, heating starts in September....
- Because all years are newly stocked with books, tablets, etc.
- Finds no place in the overloaded everyday school life

# Question 22: Does your school cooperate with companies - potential employers of<br/>your students?Question 23: If you marked "Yes" in the previous question, do you think students<br/>are aware of this collaboration?

Question 22: 44% of the respondents indicated that their school does cooperate with companies, 56% that they don't.

Question 23: One example that was mentioned for cooperation with companies several times are class sponsorships, flex. by companies from the region. One respondent state, "There are visits from entrepreneurs from the area who present their businesses." Regional companies are mentioned several times.

Some respondents named specific companies or organizations their school cooperates with or fields of work, such as tax consultants/advisors, banks, insurance, data protection.

Other examples include:

- master classes
- compulsory internship
- Pupils work together with companies as part of their final theses, e.g., creating advertising materials, websites, ...
- trial days
- exchange with companies that take on apprentices







Question 24: What kind, in your opinion, should be a teacher-mentor - educator who in her/his work focuses more on supportive participation in students' development and less on transferring knowledge?

Questions 24-27

Question 25: Would you like to improve your teacher's skills as a mentor?

Question 26: If you marked 'Yes' in the previous question, please explain the relevance to your daily work with students and what tools would be most useful to you.

Question 27: If you marked "No" in the previous task, please explain why.

Question 24: 45% of respondents indicated that their students are aware of the existing cooperation's.

#### Question 25:

According to the respondents, the most-named characteristics a good mentor must have been being empathetic, understanding, communicative and open. Having good communication and listening skills, open-mindedness, patience, and being sensitive are also mentioned several times, as well as flexibility (one person noted "ability to have many alternative courses of action"), authenticity, and being accepting/supportive.

A mentor is seen as a motivator, coach, reference person, project manager, companion in the learning process and as a role model. They are seen as someone who is able to guide work with assignments, accompanying the learning progress.

Having enough time is also a factor: Such as having several lessons in the same class and having enough time to really be able to support.

Another notable characteristic mentioned is found in the teachers' attitude and character: being enthusiastic, full of life, humorous and motivated/motivating; selfconfident, honest, friendly, fair, respectful and appreciative.

Other character traits of a good mentor that are mentioned are spontaneity, perseverance, creativity, resilience, tolerance, forbearance, being reliable, innovative, demanding.

Being solution-oriented is mentioned several times. Someone mentioned "recognizing strengths instead of looking for mistakes" and another respondent noted "talent-oriented or strength-oriented".

As a way of working, "planning, defining goals, reflecting on whether the goals have been achieved and if not, why not", is mentioned.

Social and people skills are also mentioned: being a team player/able to work in a







team, strengthen community, radiating and giving trust, being approachable, having interest in the life of the students, leadership skills, negotiation skills, emotional skills, understanding of the situation of young people, being diplomatic and strong in networking, finding or offering solutions together, promote children's skills and talents, giving advice/feedback/constructive criticism, having strengths in conducting discussions, being responsive to problems.

Professional skills are mentioned such as: having methodical competence, linguistic competence in the languages of the students, knowledge of different working methods, analytical skills; in general, being well-organized.

Pedagogical knowledge has been mentioned by a couple of respondents: "more value should be placed on pedagogy and didactics during training, i.e., one should have specialist knowledge in this area" and "should be familiar with current learning theories".

More than once, having a "big picture" view is mentioned: "always having the wellbeing of 'humanity' in mind", "teaching holistic understanding of the world" and that they "should turn away from over-structured exam-oriented thinking".

- "Good role model in all areas (times 5!)"
- "On the one hand trend-setting and leading, on the other hand sensitive, equipped with a lot of specialist knowledge"

#### Question 26/Question 27:

70% of the surveyed teachers indicated they would like to improve their mentoring skills for the following reasons:

- Strengths of students in the independent acquisition of learning content.
- Adaptive learning management systems, teaching concepts for self-learning phases.
- "Because that is helpful in every teaching situation."
- Resources of time and team teaching for optimal support
- Would like to know and be able to use handy methods quickly.
- the teaching profession is changing in this direction, no longer just imparting knowledge
- intervision group
- Better teaching, better classroom climate
- So that the students don't just learn for me or for whatever reason, but also learn to better understand what makes sense.





- "Self-reflection, being able and allowed to ask my questions to experts, strengthening the school community, finding and carrying out "meaningful and practical" projects for life together"
- Improvement in motivation on both sides, joint excursions
- "You always have to keep an eye on social, intrapsychic and cognitive development and be able to take countermeasures if necessary."
- "You can always improve, any teacher who ticks 'no' here should not be a teacher"
- Professional training, small groups of children
- "Activities also outside of school, motivating instead of disillusioning should be the heading in the knowledge transfer, the possibility to get one's own access to the students (do not blindly support the approach of the class teacher - which is demanded)"
- appreciative and up-to-date teaching
- I find myself improving, keeps going. If you never leave the level, operational blindness could also arise.
- Verification/recording of online work
- Time spent in class, fewer competitions
- "More space should be created for self-awareness and social issues. There is often a lack of teaching material and resources to create a suitable learning environment."
- "More time! More Hour Resources! Specially trained mentors!"
- To survive in today's working world
- Further development is always necessary
- More individual access
- More time to do justice to each student, human resources, so that individual work/work in small learning groups is also possible

It is notable that several respondents mention time as a factor that keeps them from interacting with students individually. Some teachers note that they see education for themselves in general as useful - "further development is always necessary". Some respondents mention that building positive relationships with students is important for successful learning. It was also mentioned that teachers see this way of teaching as preparation for the working world. Motivation is also mentioned as being required in a mentoring teaching context - self-motivation of the students as well as motivation from teachers' side.

#### Notable individual responses:







- "Turning away from imparting knowledge towards learning support always • initially means a kind of loss of control that is not easy to deal with. Selfdetermined learning also requires self-motivation and curiosity, both of which need to be awakened and kept alive. Being able to accept idle times and (digital) tools to support the learning phases are important factors"
- "It's really all about relationships how to strengthen relationships, build • trust, show that you mean well with the students? This requires further training - for many teachers it would simply be important to rethink their own mindset (so that they REALLY mean well with the students)"
- "Building a good relationship with the student is crucial to teaching and learning success. Unfortunately, no time is set aside for looking after students in regular classes. A sound knowledge of "learning to learn" is an advantage; listening and showing understanding is often enough. Very often the student lacks organization and time management."
- "You never stop learning: The situation in schools is constantly changing, • the children and their interests and thus also the way in which you can best support them."
- "More time to do justice to each student, human resources, so that individual work/work in small learning groups is also possible"
- "Important for support in the career. Motivation is an essential point see • school systems in other countries where a teacher already has a "coach" function."
- "You always have to keep an eye on social, intrapsychic and cognitive development and be able to take countermeasures if necessary"

#### Question 28:

Teachers that indicated that they do not want to improve their mentoring skills named the following reasons for their response:

- No time for that right now/it takes too much time
- that is already well established
- In elementary school, I am mainly concerned with teaching working methods and core competencies.
- I already have too many assignments at school
- In the available teaching time, the technical education of the schoolgirls is a major challenge in a compulsory Matura subject. Other educational goals are difficult to achieve here.
- First, the school system must create the framework conditions that will make committed work possible again. All teachers are busy around the







clock the whole week with school administration work, so that from the overall state of the school it is currently not possible to improve anything about the teachers. Politicians must improve schools, only then can the protagonists at the educational institutions continue to develop.

- I already support my students sufficiently in their personal development.
- Because my students need active help, starting with understanding the • tasks (high proportion of children with a first language other than German)
- I love passing on knowledge
- As a former support teacher, I think I'm well trained for this.
- Every child is different
- too many other challenges

The most frequent reason teachers mention is a lack of time as a reason for not wanting to improve their mentoring skills - "There is absolutely no time involved". Some teachers don't see the need for a further training in this area since "I love passing on knowledge", "I already support my students sufficiently in their personal development", "that is already well established", "In elementary school, I am mainly concerned with teaching working methods and core competencies", or "As a former support teacher, I think I'm well trained for this" Other reasons given are "too many other challenges" or "Because my students need active help, starting with understanding the tasks (high proportion of children with a first language other than German)".

#### Notable individual responses:

"First, the school system must create the framework conditions that will • make committed work possible again. All teachers are busy around the clock the whole week with school administration work, so that from the overall state of the school it is currently not possible to improve anything about the teachers. Politicians must improve schools, only then can the protagonists at the educational institutions continue to develop."





#### Summary

Social and personality skills are definitely seen as most important by the surveyed teachers to be effective in the role as a mentor for their students.

It is notable how often "empathy" is mentioned, as well as skills and attributes like communication skills, openness, authenticity, being a team player, and flexibility and the ability to give feedback.

It is recognizable that time - more specifically: a lack thereof - is mentioned as a limiting factor by several respondents in regard to improving and applying mentorship qualities and tools. Several respondents mention time as a factor that keeps them from interacting with students individually.

Motivation is mentioned as being required in a mentoring teaching context - self-motivation of the students, which is seen as important to be developed and strengthened in students by a notable majority of respondents, as well as teachers' motivation.

It is notable that a majority of 70% of the surveyed teachers state that they would like to improve their mentoring skills.

As reasons for wanting to improve their mentoring skills (for those who do want that), some teachers note that they see education for themselves in general as useful. some mention that building positive relationships with students is important for successful learning. It was also mentioned that teachers see mentoring in teaching as a preparation for the working world.

From teachers that state they do not want to develop mentoring skills, the most frequent reason mentioned is a lack of time, some don't see the need or would like to keep their way of teaching.

ICT is widely used in class: almost half of the surveyed teachers employ Information and Communication Technologies every day, another third uses them every week.







#### 2.2 Survey Analysis: Primary School Students

The survey addressed to primary school students aimed at assessing two main items:

- 1. students' overall satisfaction with the school activities;
- 2. students' overall satisfaction with their teachers.

The scope of the research, mainly focused on Secondary School Education, did not include the in-depth analysis of the items listed above, but the collection of a higher-level picture of the current satisfaction level of a limited sample of primary school students. Further investigation is needed to assess the underlying reasons behind the answers collected, as well as to evaluate the applicability of the results to a wider sample.

#### Question 1 How are you feeling today?

The Mentor 2.0 consortium differentiated surveys for primary school students from those designed for older students to make it easier for respondents to participate in the research. For most of the questions, we used graphics such as emojis so that the surveys were more approachable and "friendly" for children. To kick off the survey, kids were asked about their feelings, particularly if they felt "Happy" or "Sad" during the survey. The survey engaged 25 students. **88% indicated that they felt happy**, 12% indicated they felt sad when they answered the survey questions.

Questions 2 -3-4	Question 2: How old are you?
	Question 3: Are you a primary school student?
	Question 4: What grade are you in?

In Austria children go to primary school when they are 6 years old and continue their learning at the primary level for 4 years, until they are 9-10 years old.

#### 19 of the respondents were 8 years old, 6 were 9 years old.

1 (4%) of the respondents indicated that they go to grade 1, 0 to grade 2, 22 (88%) to grade 3 and 2 (8%) to grade 4 of primary school.

Question 5Do you like going to school?

84% of students in grades 1-4 like to go to school

QuestionsQuestion 6: What I like most about schools is:6-7Question 7: What I like the least in school is:





-	
	<ul> <li>36 % of the students indicated what they like most about school are their classmates.</li> <li>20 % respectively named their teachers, the playground and extracurricular activities. 4 % (1 student) indicated they liked the lessons most.</li> </ul>
	<b>32 % of the students indicated what they like least about school are the lessons,</b> followed by the playground (28%), extracurricular activities (24%), and classmates (16%).
Questions 8-9-10	Question 8: Do you like your teachers? Question 9: Do/Don't your teachers help you with your homework? Question 10: Would you like to have the same teachers next year?
	The vast majority (88%) indicated they like their teachers. 92% indicated that their teachers don't help them with homework. 92% indicate they would like to have the same teachers in the following year.
Question 11	How are the lessons? Select if they're "Fun" or "Boring".
	56 % of students indicated that lessons are fun, 44 % said lessons were boring.
Question 12	When at school, would you like to do more activities outside of class (e.g., on the playground)?
	Most of the students (68%) marked the answer with Yes.
Question 13	How many stars would you give to your school?
	<b>Most students in grades 1-4 would rate their school with 5 stars (40%)</b> , 8% would rate their school with 1 star. The majority of the students rate their schools with 4

rate their school with 1 star. The majority of the students rate their schools with 4 or 5 stars (68%).



Graph 10. School rate





#### Summary

It's noticeable that the contentment of primary school students with school and their teachers is relatively high. A majority (84%) of primary school students indicate that they like to go to school. 88% state they like their teachers.

In regard to the need or possibilities for mentorship, 32% of students state that what they like least about school are the lessons and 68% state that they want to do more activities outside of class.







#### 2.3 Survey Analysis: Lower Secondary School Students

The survey addressed to lower secondary school students aimed at evaluating:

- students' overall satisfaction with their schools;
- students' active engagement in classes;
- current mentoring practices in lower secondary schools;
- use of ICT in lower secondary schools;
- cooperation between lower secondary schools and external actors.

Question 1 Are you studying lower secondary school?

100% of the respondents were secondary school students in grades 4-8.

Question 2: Enter how often the teachers give you tips on how to learnQuestions2-3-4Question 3: If you indicated that you were getting tips/directions, choose<br/>which:<br/>Question 4: What do you miss the most in order to learn effectively?

This set of questions aims to determine whether students receive guidance from their teachers in different areas and how often.

Question 2: Students indicate that teachers give them tips on how to learn effectively: never (41%), once or more than once a week (32%), less than once a month (27%).

Question 3: In relation to question 3, 6 students report receiving tips on methods to remember better, 5 students receive help in taking good notes, perspectively 3 receive tips in what to learn in practice and on making associations.

Question 4: 16 students indicate that a lack of motivation keeps them from learning effectively, followed by difficulties to concentrate (7), a lack of understanding from the teachers (6), a lack of flexibility in teachers' thinking (5), followed by lack of support and lack of tips on how to learn effectively (each 4).

Question 0 5-9-13 0

Question 5: Are you eager to take part in lessons? Question 9 During lessons, you have the opportunity to: Question 13: Thanks to my school, I can:





This set of questions aims to understand the degree of participation in the lessons and the opportunities arising from them and from the school.

Question 5: The majority of students (46%) indicated that they enjoy participating in most lessons or all lessons (9%), 36% enjoy participating in lessons partly and 9% enjoy participating in less than half of lessons. Nobody indicated that they don't like to participate in lessons.

Question 9: 86% of students indicated that they are given the opportunity to ask questions daily, 9% once or more times a week and 5% of students indicated that they have the opportunity to ask questions less than once a month.

Regarding the possibility of taking visual notes, 18% of the students said every day. More than once a week 9% of respondents, less than once a week 23%, less than once a month 32% of students and 18% never have the possibility to take visual notes.

Regarding participation in discussions, 23% of students have the opportunity to participate in discussions daily, 27% of the students respectively participate in discussions at least once a week and less than once a week, 18% less than once a month and 5% never.

41% of the students report that they have the opportunity to work in groups daily, 45% at least once a week, 9% less than once a week and 5% less than once a month.

41% of the students have the opportunity to work independently every day, 41% at least once a week, 9% less than once every week, 5% less than once a month and 5% never.

45% of students have the opportunity to express their views on a topic discussed in class less than once a month and 23% never. 9% indicate that they have this opportunity every day, 5% at least once a week and 18% less than once a week.

Question 13: Thanks to their respective schools, 46% of the students had the opportunity get involved in environmental action and events, 41% to participate in social projects, 36% to participate in voluntary work, 32% of the students were able to present their gifts, talents and/or strengths, 23%





respectively were able to realize their ideas and to participate in projects that develop the skills of cooperation and communication with others, respectively 18% were able to participate in ecological projects and in projects involving local entrepreneurs and other organizations.

In question 13, 5% added that they were able to learn many languages through their school.

Question 6: What/who motivates you to learn? Choose 3 main motivators: Question 7: What demotivates you to learn? Choose the 3 main reasons for demotivation: Question 12: How do teachers motivate you and create a learning

Question 12: How do teachers motivate you and create a learning atmosphere? Choose the 3 most common ways

This set of questions aims to understand what motivates and demotivates students and how teachers try to inspire learners.

Question 6: Respectively 82 % of the students are motivated to learn by receiving good grades and by the prospects of a good future job, 41% each are motivated by their parents/legal guardians and by a subject they like, 18% is motivated by acquiring new useful knowledge and competences, another 18% is motivated by ambition, 14% each are motivated by their willingness to pass an exam or test, by nice teachers or other students and 5% by interesting lessons.

1 Person (5%) added that reaching their goals in the future motivates them to learn.

Question 7: 68% of the students are demotivated by rising early, 64% are demotivated by boring subjects, 55% report that they are demotivated by learning things they consider useless, 50% by too much homework, studying subjects they don't like, 46% by too much homework or the pressure of possible failure, 23% by the possibility of doing something more interesting, 14% by receiving bad grades despite studying, each 9% by teachers' comments, by repeating the same topics in several lessons, by the shortcomings that follow them, 5% isn't demotivated by anything and 5% add that they are demotivated by computers.

Question 12: A high number of students, 73% each, report that teachers motivate them and create a calm atmosphere in the classrooms by leading



35





lessons in an interesting way and that they are motivated by feeling praised publicly. 55% say that they are motivated when teachers answer the questions that students ask in class, 23% are motivated when a topic will be taken up in future lessons, 9% say that they are not motivated in any way by their teachers.

#### Question 8 Question 8: Do the teachers talk to you about your strengths / talents and how to develop them?

32% of students report that there is one teacher that talks to them about their strengths and talents, also 32% report that there is no teacher that does this. 27% report that there are two-three teachers that talk to them about their strengths/talents and 9% say there are more than three teachers who do this.

#### Question 10 Question 10: During lessons, teachers give you tips on how to:

A majority of 68% report that they aren't given any tips by their teachers, 18% of the students report that during lessons the teachers give hints on how to use their strengths to learn better, 14% each receive hints on how to remember important information, on how to repeat important content and that teachers provide the skills to search for content on the internet. 9% report that they receive hints on how to take useful notes.

#### Question 11 Question 11: How do you usually feel when you are assessed? Choose the descriptions that best suit you

45% of students report that their motivation increases when being assessed, 36% decide to improve, 32% still don't know where to improve and how to do it, 23% loses all motivation to study and 9% know where to improve and how to do it.

#### **Question 17** If you could change something about your school, what would it be?

59% of students would like to do more extracurricular and international projects and initiatives, 55% would like to do more outdoor activities and experiments instead of sitting at desk, a respective 50% would like to start lessons at a later time and change the ways of teaching, 46% would like to have more conversations about future career paths and advanced training, 32% would like to learn more useful things, a respective 27% would change the evaluation system and the teachers' approach to students, finally 5% would not change anything.






Other responses were the wish for fewer tests in "less important" subjects, and no homework on long school days.

Question 18 What would you wish for your teachers?

Students in grades 4-8 and upper secondary schools wish (from) their teachers:

- Going through the material more slowly and explaining it better
- Give us less homework!!! more free time
- "That they make the lessons more interesting for us students and teach us subject matter that I can later apply in practice."
  - slower learning!!
  - That they design the lessons creatively.
- coordinate more so that there are not so many exams in one week and you have more time to study
  - watch more movies

• Biology: explain the female menstrual cycle/ female sexual organs in more detail, use the correct terms

• "That the content is explained more slowly so that it is easier to follow along. And that we read more class books, especially in the foreign languages."

- "Better explaining and more responsive to student needs."
- "Learning how to learn, which means learning methods such as active recall, and not just 'write 20 flashcards on this topic'"
- "More excursions, less sitting and writing! :)"

One student expressed the wish for discrimination to be stopped and education on racism and sexism.

Question 14: On a scale from 1 to 6, determine at what level teachers in your school discuss with you the emergence of new professions and changes taking place on the labor market? (Where 1 is very low and 6 is very high level)

Question 14-16

Question 15: On a scale from 1 to 6, determine at what level your school prepares you to choose a field of study and choose a profession. (Where 1 is very low and 6 is very high level)

Question 16: On a scale from 1 to 6, how often does your school undertake activities aimed at cooperation with employers? (Where 1







means that he does not take such actions, and 6 means that he engages them very often)

Question 14: The students surveyed indicate that teachers discuss the emergence of new jobs and change in the world of work very much (14%) or much (23%), 32% of the students believe it is discussed but without going into depth, 27% of the students believe this topic is discussed but still not enough, 5% believe the topic is discussed very little.

Question 15: 14% of the students indicated that they are strongly supported by teachers regarding their choice of future education or career path, 41% said they are helped in their choice of future education or career path, 23% said they are helped but not too much, a respective 9% responded that they are helped little or very little by teachers and finally 5% of students surveyed indicated that teachers do not help them at all in their choice of future education or career path.

Question 16: None of the students say that their school organizes lots of activities with companies and employers, respectively 5% of students say that their school organized quite frequent or some activities with companies and employers, 46% believe that school organizes activities, but they are not very frequent, 23% of students believe that their school undertakes few initiative activities with organizations and employers, another 23% of students believe that their school does not undertake cooperation initiatives with companies and employers.

#### Summary

The majority (53%) of lower secondary school students indicated they enjoy participating in most lessons or all lessons.

A relatively high percentage of students (almost half) indicate that a lack of motivation keeps them from learning effectively.

What does motivate students to learn? Respectively 82% of the students are motivated to learn by receiving good grades and by the prospects of a good future job, 41% each are motivated by their







parents/legal guardians and by a subject they like.

It is notable that the most important factors for demotivation are boring subjects along with rising early (about two thirds of respondents mentioned that). In accordance with that, 73% report that they are motivated by teachers leading lessons in an interesting way. Half of students each report they are demotivated by learning things they consider useless, by too much homework, studying subjects they don't like or the pressure of possible failure.

To the question how teachers motivate them and create a learning atmosphere, a high number of students, 73%, report that teachers motivate them by feeling praised publicly, 55% say that they are motivated when teachers answer the questions that students ask in class, 23% are motivated when a topic will be taken up in future lessons.

About 60% of students would like to do more extracurricular and international projects and initiatives, about half of students each would like to do more outdoor activities and experiments instead of sitting at desk, to start lessons at a later time and change the ways of teaching and to have more conversations about future career paths and advanced training.

Regarding what students wish from their teachers, the most frequent wishes were: going through the topics more slowly, learning more slowly and explaining better, for teachers to be more responsive to students' needs. Furthermore, more creativity in lesson creation, fewer exams at the same time and less homework was mentioned.

# **2.4 Survey Analysis: Upper Secondary School Students**

The survey addressed to upper secondary school students aimed at evaluating:

- Students' overall satisfaction with their schools;
- Students' active engagement in classes;
- Current mentoring practices in upper secondary schools;
- Use of ICT in upper secondary schools;
- Cooperation between upper secondary schools and external actors;
- Preparing students to undertake educational and professional decisions about their

future.

Question 1

Are you an upper secondary school student?

100% (23 students) were in upper secondary education (grades 9-13).







Questions 2-3-4 Question 2: Enter how often the teachers give you tips on how to learn effectively: (choose one of the following)

Question 3: If you indicated that you were getting tips/directions, choose which: Question 4: What do you miss the most in order to learn effectively?

This set of questions aims to find out whether students receive hints in different areas and how often.

Question 2: Students indicate that teachers give them tips on how to learn effectively: never (17%), once or more than once a week (13%), more than once a month (22%), less than once a month (48%).

Question 3: 6 students report receiving tips on methods to remember better, 10 students receive help in taking good notes, 7 receive tips in what to learn in practice and 12 students on making associations, one student added the tip to take breaks sometimes.

Question 4: 20 students indicate that a lack of motivation keeps them from learning effectively, followed by difficulties to concentrate (11), followed by lack of support (9), a lack of understanding from the teachers (6), a lack of flexibility in teachers' thinking (4), and lack of tips on how to learn effectively (4). One student added that they don't really have to learn/put effort into learning.

QuestionQuestion 5: Are you eager to take part in lessons?5-9-13Question 9: During lessons, you have the opportunity to:<br/>Question 13: Thanks to my school, I can:

This set of questions aims to understand the degree of participation in the lessons and the opportunities arising from them and from the school.

Question 5: The majority of students indicated that they enjoy participating in most lessons (44%) or all lessons (9%), 26% enjoy participating in lessons partly and 9% enjoy participating in less than half of lessons. 13% indicated that they don't like to participate in lessons.

Question 9: 87% of students indicated that they are given the opportunity to ask questions daily (57%) or at least once a week (30%), the remaining 13% are equally dividing between less than once a week, less than once a month and never.

Regarding the possibility of taking visual notes, 39% of the students said every day. More than once a week or less than once a week each 22%, less than once a month







13% of students and 4% never have the possibility to take visual notes.

Regarding participation in discussions, 70% of students have the opportunity to participate in discussions daily or at least once a week and 30% less than once a week.

A little more than half of the students (52%) report that they have the opportunity to work in groups daily or at least once a week, the remaining 48% less than once a week and less than once a month.

44% of the students have the opportunity to work independently every day, 22% each at least once a week or less than once every week, 9% less than once a month and 4% never.

44% of students have the opportunity to express their views on a topic discussed in class at least once a week, 17% indicate that they have this opportunity every day, 17% less than once a week or month and 4% never.

Question 13: Thanks to their respective schools, 39% of the students were able to present their gifts, talents and/or strengths, 35% of the students had the opportunity get involved in environmental action and events, 17% were able to realize their ideas, 13% respectively to participate in social projects and in voluntary work, 9% were able to participate in projects involving local entrepreneurs and other organizations, respectively 5% were able to participate in ecological projects and in projects that develop the skills of cooperation and communication with others.

Question 6: What/who motivates you to learn? Choose 3 main motivators:Question6-7-12Question 12: How do teachers motivate you and create a learning atmosphere?<br/>Choose the 3 most common ways

This set of questions aims to understand what motivates and demotivates students and how teachers try to inspire learners.

Question 6: 78 % of the students are motivated to learn by the prospect of receiving good grades and 57% by the prospects of a good future job, 44% are motivated by a subject they like, 39% by acquiring new useful knowledge and competences, 35% by their own ambition, 22% are motivated by their





willingness to pass an entrance exam for university, 17% each are motivated by other students, 9% each by their parents/legal guardians and by nice teachers.

Question 7: 57% of the students report that they are demotivated by learning things they consider useless, 52% are demotivated by boring subjects, 48% by studying subjects they don't like, 44% by receiving bad grades despite studying, 35% are demotivated by rising early, 30% by fear of failure, 26% respectively by too much homework or the possibility of doing something more interesting, followed by teachers' comments, by being assessed continuously, repeating the same topics in several lessons, by not having enough free time or by the shortcomings that follow them (each less than 25%).

Question 12: A high number of students, 70%, report that teachers motivate them and create a calm atmosphere in the classrooms by leading lessons in an interesting way and 57% are motivated by feeling praised publicly. 44% say that they are motivated when teachers answer the questions that students ask in class, 35% are motivated when a topic will be taken up in future lessons, 13% say that they are not motivated in any way by their teachers. 1 person (5%) adds that humor in lessons motivates them.

# Question 8 Do the teachers talk to you about your strengths / talents and how to develop them

44% report that there is no teacher that talks to them about their strengths and talents, 35% report that there are two-three teachers that talk to them about their strengths/talents, 17% of students report that there is one teacher that talks to them about their strengths and talents, also that does this. and 4% say there are more than three teachers who do this.

#### **Question 10** During the lesson, the teachers give you tips on how to:

39% of students receive hints on how to remember important information, 35% each indicate that they are given tips on how to repeat important content and how to take useful notes. 26% report that teachers provide the skills to search for content on the internet, 22% report that they aren't given any tips by their teachers, 17% of the students report that during lessons the teachers give hints on how to use their strengths to learn better.







## Question 11

How do you usually feel when you are assessed? Choose the descriptions that best suit you

44% of students each report that their motivation increases when being assessed and that they decide to improve, 22% still don't know where to improve and how to do it, 18% respectively lose all motivation to study or know where to improve and how to do it.

#### Question 17 If you could change something about your school, what would it be?

60% would like to learn more useful things, a respective 48% would like to have more conversations about future career paths and advanced training and to do more outdoor activities and experiments instead of sitting at desk, 44% would change the ways of teaching, 39% would each like to do more extracurricular and international projects and initiatives and to change the evaluation system. Another 35% would like the teachers' approach to students to change, only 9% would start lessons at a later time of day.

Question 14-15-16 Question 14: On a scale from 1 to 6, determine at what level teachers in your school discuss with you the emergence of new professions and changes taking place on the labour market? (Where 1 is very low and 6 is very high level). Question 15: On a scale from 1 to 6, determine at what level your school prepares

you to choose a field of study and choose a profession. (Where 1 is very low and 6 is very high level).

Question 16: On a scale from 1 to 6, how often does your school undertake activities aimed at cooperation with employers? (Where 1 means that the school does not take such actions, and 6 means that the school engages them very often).

Question 14: The majority of students (57%) surveyed indicate that teachers discuss the emergence of new jobs and change in the world of work without going into depth or discuss it, but not very much. Another 30% indicate that the topic is discussed very little or not at all. Another 13% believe the topic is discussed much.

Question 15: 30% of students indicated that they are helped in their choice of future education or career path, 35% say that they are helped, but not too much, or helped little helped little and finally 35% said that they are helped very little by teachers or that teachers do not help them at all in their choice of future education or career path.





Question 16: 22% of students say their school organizes lots of activities or quite frequent activities with companies and employers, 56% of students say that their school organizes some or not quite frequent activities with companies and employers, 22% of students believe that their school undertakes few or no initiative activities with organizations and employers.

## Question 18 What would you wish for your teachers?

Students in grades 9-13 wish (from) their teachers:

- Less homework and more intensive study
- Praise more and focus on my strengths
- Relaxed classes because no major and lots of stress with DA etc.
- That they incorporate more humor into their lessons
- more patience
- More diverse lessons...
- don't bully students
- "More understanding and fair assessment (favorite students automatically get better grades-unfair)!"
- Motivation and willingness to try new things
- "That we learn things that will be important in life"
- Focus more on the subjects that are difficult for most students.
- "I wish they could be more creative and give their classmates more study tips and not just write the evaluation."

That people are allowed to teach who have themselves completed a degree in a certain area, as far as I know in the USA. Or people who run a company themselves or work in a branch such as marketing, then to be able to impart this practical knowledge better than a teacher who has never applied the subject matter that they are teaching in practice.

#### Summary

It is notable that the majority of upper secondary school students (53%) indicated that they enjoy participating in most lessons or all lessons.

A lack of motivation was by far named as the biggest factor in keeping students from learning effectively.

To the question asked what does motivate them to learn, a majority (78%) of students state they





are motivated to learn by the prospect of receiving good grades. Other factors that a relatively high percentage of students mentioned are prospects of a good future job, a subject they like, or the acquiring of new useful knowledge and competences, and their own ambition.

Reflecting that, about half of students each report that they are demotivated by learning things they consider useless, by boring subjects or by studying subjects they don't like or by receiving bad grades despite studying.

How can teachers motivate their students, then? A high number of students, 70%, report that teachers motivate them and create a calm atmosphere in the classrooms by leading lessons in an interesting way. More than half of students are motivated by feeling praised publicly. The third highest percentage say that they are motivated when teachers answer the questions that students ask in class, and a third of students are motivated when a topic will be taken up in future lessons. 44% of students each report that their motivation increases when being assessed and that they decide to improve.

When asked what they would change about their school, 60% of respondents indicated they would like to learn more useful things, about half of students would like to have more conversations about future career paths and advanced training and to do more outdoor activities and experiments instead of sitting at desk. 44% would change the ways of teaching, 39% would each like to do more extracurricular and international projects and initiatives and to change the evaluation system. Another 35% would like the teachers' approach to students to change.

Students wish for their teachers to use more creativity to make class more interesting, for more humor in the lessons. Furthermore, more diversity in the lessons, more patience, more praise and focus on strength, less homework and more intense study is mentioned and more "focus on the subjects that are difficult for most students" as well as motivation and willingness to try new things and fair assessment, to name a few. There was a broad range of answers to this question.







# 3. Advancing School Education: Focus Groups

Two focus groups were implemented by GTN Solutions GmbH to analyze more in-depth the results of the surveys with teachers and students.

## **3.1 Focus Group with Teachers**

The focus group composition was as follows: 10 % Primary school teachers, 50 % from Lower Secondary Schools, 40 % from Upper Secondary schools in Austria.

In order to reach the teachers for the Focus Group(s), **GTN Solutions GmbH** conducted the following activities particularly to engage these in rural or otherwise deprived areas:

- The eEducation project in Austria (www.eeducation.at) is an initiative of the Federal Ministry of Education, Science and Research. The network consists of about 4000 schools which are coordinated by state coordinators being teachers themselves. Around 80 teachers referring to different school levels help other schools to develop their digital agenda. These coordinators have the function of multipliers in each state and had a partial part in answering the surveys that were being taken as well as partially a part of the focus group. The results can therefore be considered to be representative. The eEducation network was partially used for answering the surveys. In addition, within several workshops the education core-team was asked to participate and discuss about the needs of teachers focusing on their role-change.
- Teachers within this network are spread out throughout Austria also including rural areas. Especially the Austrian states Vorarlberg and Tirol as well as parts of Salzburg have mountainous regions where sometimes children have to travel up to one hour to reach their school. Teachers in these schools are aware of this problem. This is also one of the reasons that these schools participate in the 8-point-action plan that was put to work in the year 2020.

The responses to the questions are reported in the following paragraphs.

Q1. In our teachers' surveys, we asked: "In your opinion, does the school equip students with practical knowledge and skills needed to choose the educational and career path?" What do you think is missing the most for the school to equip students with practical knowledge and skills to choose their future pathways? What are the obstacles to implementing it?

55% of surveyed teachers believe that students are well equipped with general as well as practical knowledge for their future. This might relate to the school levels that teachers come from. Whereas it is important for teachers in primary level to establish basic reading, writing and math skills with students a selection is already made an early stage to either prepare students for an academic pathway or rather prepare the within







ongoing education in middle schools to either continue on their educational path towards vocational training or vocational upper secondary schools. This unfortunate segregation at an early stage has as a result students that continue in Gymnasium (academic approach) having to cope with a rather restrictive career path that leads towards final graduation which is compulsory for being able to go to university. Teachers at these schools can be supportive to their students but not necessarily see the need for an immediate preparation for other educational paths or the labor market.

Teachers that teach in lower secondary education in middle schools already put an emphasis on the needs of students and there are several mechanisms to help students find orientation towards either continuing their educational career in upper secondary schools being of either technical, commercial, or tourism orientation. The other career path would be to go to vocational dual education with students already starting to work after 9 years of compulsory school and then going to vocational training in companies that they chose, accompanied by regular school visits within a 3-year period (Berufsschulen = vocational schools).

Answers of the survey show that it is not only up to schools to transport practical knowledge and that putting a focus on the digital agenda also helps. Multiculturality is considered as being essential in the vocational educational career and overarching skills that strengthen personality are an important part. Reflexions with the student (KEL-talks which involve students, parents and teachers) are considered as being an essential part, mostly used in middle schools.

Q2. What do you think are the biggest obstacles for the school to equip students with practical knowledge and skills to choose their future pathways and – are there any difficulties of a legal nature – i.e., laws that make it harder for school to equip students with practical knowledge and skills to choose their future pathways?

The biggest obstacle might lie in the fact that there is not a compulsory obligation for continuous teachers' education. However, there are differences. Whereas state teachers (compulsory schools) have to prove a 15-hour educational update (trainings, etc.) within a schoolyear, federal teachers (academic schools as well as schools in upper secondary) have no obligation for further education. Especially considering an update on the digital agenda which should be compulsory would need a change of laws.

Q3. In our survey, we asked teachers the following question: "Does your school cooperate with companies - potential employers of your students?" What do you think is missing the most for the school to cooperate with local businesses? What are the obstacles to implementing it?





44% of surveyed teachers responded "Yes" to this question. The answers to this question also relate to the different school types that were part of the survey. As described above, in some school types this is not the main focal point. However, in middle schools as well as compulsory schools there are programs (for example class patronage of businesses) to try to establish a connection with future employers. The vocational system in dual education is lacking students in general, so cooperation's between vocational schools and middle schools are often initiated. Also, vocational schools have more or less connections to regional businesses. One of the biggest obstacles at the moment is that not all schools have persons in charge of a continuing communication with businesses to keep contacts up. This is mainly due to daily routines that put quite a bit of burden on teachers (being of administrative as well as of social and language kind).

Q4. What do you think are the biggest obstacles for engaging local business and – if there are difficulties of a legal nature – i.e., laws that make it harder for schools to cooperate with companies?

In general, cooperation from schools with local businesses do not have restrictions of legal nature. However, the situation in Austrian schools in general at the moment has shifted the focus: being a country that needs to integrate many refugees with different cultures and language backgrounds as well as the pandemic situation in the past years have put a great stress on the educational system and therefore teachers. Otherwise, local businesses are in general willing to cooperate with schools due to the mentioned decline of students in dual vocational training.

Q5. Would you like to improve your teacher's skills as a mentor? What do you think are the biggest obstacles for becoming a Mentor to your students and are there difficulties of a legal nature - i.e., laws or internal school regulations - that make it harder for teachers to undertake such a role?

Interestingly enough, many teachers (70% in Austria) would like to continue the development of the teacher competences towards mentoring. Main ideas that were transported in the focus groups are that the traditional emphasis on mere knowledge transfer is not suitable anymore for learning situations. Being part of a society with information accessible everywhere there needs to be a shift towards interpretation of data and putting this information in the appropriate context. A federal measure that has been undertaken on this behalf is the introduction of a new subject called "Digital education" which relates to the theory of the Frankfurt Dreieck putting technology also into the context of interaction between the individual and society as well as what using technology also means for the individual. The competences that this subject is based upon show that there also is a need for teachers to work on the reflective parts of the





curriculum. This results in the need for learning scenarios that focus on self-learning, the change of classroom situations, motivational aspects and new forms of relationship and trust between teachers and students. To be well equipped for this situation a common understanding is that more development of these skills needed by teachers is of utmost importance.

Q6. In the students' surveys we asked if they work in groups or teams in school. What do you think are the biggest obstacles for the students to work in teams or in groups in your classroom and are there difficulties of a legal nature - i.e., laws or internal school regulations - that make it harder for such teamwork?

There are several issues related to this question:

- 1. pedagogical setting: this refers to the teachers' perception of pedagogy. There needs to be a shift away from giving classical input (knowledge transfer) to more open learning settings. This also means that teachers need to know how to work with these settings. There are several different projects in the Austrian school system (mainly in secondary education) that address this idea. Dalton schools as well as schools working with the cool-principle (www.cooltrainers.at) work with this and offer a continuous further education program which is hosted by some regional pedagogical university colleges. These programs emphasize on a role change of teachers but are not in use on a large scale because they are free to participate in and not compulsory. Teachers that are confident with open and collaborative learning scenarios can put these to work in daily classroom situations working with assignments and helping to develop student driven learning scenarios.
- 2. infrastructure: to be able to work in collaborative open scenarios it is of utmost importance that school development issues are addressed as well. On one hand these can be technical issues like availability of Wi-Fi throughout the school building as well as having students equipped with digital devices that allow moving around and working on assignments in different places. The 8-pointaction-plan of the Federal Ministry of Education in Austria tackled this problem with a digital-device initiative to provide students with these devices for schoolwork. Many legal aspects had to be solved but a basic infrastructure has been established. However, this does not necessarily mean that open learning scenarios are introduced immediately as well. This might be more of a gradual process that will eventually take place in schools.
- 3. administrative issues: especially schedules in schools need to allow working in open learning scenarios. This means that there is a need for a solid understanding of this idea and support by both school management as well as school





administrators. Giving students the opportunity to learn in collaborative settings as part of the schedule allows interaction and the development of social skills and teamwork.

Q7. In question 14 of the Teachers' surveys, in the question "How often in your lessons do you use ICT, e.g., use of educational platforms, provide students with links to additional teaching content?", only 15% of the surveyed teachers answered that they use ICT in class on a daily basis, while 30% on a weekly basis and 20% less than once a month. However, some of the students in our survey responded that they never use ICT at school. What do you think are the biggest obstacles for ICT to be used at school and are there difficulties of a legal nature – i.e., laws or internal school regulations - that make it harder for teachers to use ICT?

First, there is a need for differentiation: international studies show that whereas teachers often use online resources for preparing their classroom work and therefore can answer that they use digital media, this is not always considered in daily classroom work. Especially the pandemic has led to a broader acceptance of using digital resources. Platforms during this time were used for picking up communication between teachers and students. However, this does not necessarily mean that the basic pedagogical concept was changed. Learning with digital resources also means working on a different pedagogical model.

For the Austrian situation, the technical problems were kept low because of a general licensing system for communication platforms which was provided centrally by the Federal Ministry of Education. Many further teacher education programs were financed (mainly from eEducation) to get teachers to become fit with technology. The usage of platforms now shows the way the platforms were used. Many teachers concentrated on the communication aspect. However, using digital media with a competency-based didactical concept can also help to personalize learning processes. For this idea there still is a way to go. On one hand appropriate learning materials have to be available digitally and also instructional design has to be introduced into online learning courses. On this part there still is the need for more development, both in content as well as further teacher education.

Q8. If you were to choose which topics of the MENTOR pedagogy you would like to pursue, if they were available online and for free, what would they be:

- strengthening self motivation of the teacher / student;
- discovering and managing talents of the teacher / student;
- team building and leadership at school, in the classroom;



- digital tools in school enhancing inclusive education;
- school's role in circular economy and practical environmental education;
- cooperation between school and the external environment, particularly employers.

Strengthening self motivation of both teachers and students would be the main focal point in the opinion of the focus group. Teachers have to cope with a great deal of different issues in their daily work. This means that a sound personality and strategies to help self motivate should be addressed by a general agenda. If teachers learn how to deal with many different situations of their daily work and have the skills to also motivate students in collaborative scenarios the setting for student centered self paced learning scenarios could be set.

#### Summary

Regarding the question if the school equips students with practical knowledge and skills needed to choose the educational and career path and what the obstacles are, more than half of surveyed teachers believe that students are well equipped with general and practical knowledge for their future.

Answers of the survey show that it is not only up to schools to transport practical knowledge and that putting a focus on the digital agenda also helps. Multiculturality is considered as being essential in the vocational educational career and overarching skills that strengthen personality are an important part. Reflexions with the student are considered as essential.

The biggest obstacle for the school to equip students with practical knowledge and skills to choose their future pathways teachers consider to lie in the fact that there is not a compulsory obligation for continuous teachers' education. Especially considering an update on the digital agenda which should be compulsory would need a change of laws.

44% of surveyed teachers stated that their school cooperates with companies, In general, cooperation from schools with local businesses do not have restrictions of legal nature. Local businesses are in general willing to cooperate with schools due to a decline of students in dual vocational training.





Many teachers (70%) would like to continue the development of the teacher competences towards mentoring. Main ideas that were transported in the focus groups are that the traditional emphasis on mere knowledge transfer is not suitable anymore for learning situations.

As biggest obstacles for the students to work in teams or in groups in your classroom, pedagogical setting, infrastructure and administrative issues are mentioned.

The pandemic has led to a broader acceptance of using digital resources. Platforms during this time were used for picking up communication between teachers and students. However, learning with digital resources also means working on a different pedagogical model and this hasn't necessarily changed yet.

Strengthening self motivation of both teachers and students is seen as the main focal point in the opinion of the focus group. A sound personality and strategies to help self motivate should be addressed by a general agenda. If teachers learn how to deal with different situations of their daily work and have the skills to motivate students in collaborative scenarios, the setting for student centered self paced learning scenarios could be set.

## **3.2 Focus Group with Students**

All of the 15 respondents were in upper secondary education, and all of them were 16 years old or older. The responses to the questions are reported in the following paragraphs.

Q1. 44% of the students responded that two or three teachers talk to them about their individual talents and strengths. 4% pointed out that no teacher helps with personal development. What do you think?

The most common response was that not enough time is the reason for teachers to talk with students about their individual strengths. The second most common response is that the number of students in a class is too high to allow that kind of individual attention.

Q2. 57% of students marked "learning things they consider useless" as the highest demotivator. Can you give an example? Why do you think such content is in the school curriculum?

Examples given were specific fields of mathematics (several times), and topics (like WWII) that would be interesting for some and not interesting for others, as some people





already have a specific (professional) goal where they don't need other specific kinds of information. Other subjects that were mentioned are religion, arts or science.

As for the question why, this content is in the school curriculum, "gaining general knowledge" was mentioned as well as the curriculum being outdated.

Q3. What do you think are the biggest obstacles for ICT to be used at school? Would you like to use smartphones for learning purposes during lessons?

An obstacle that was mentioned several times was the lack of knowledge about new technologies by some teachers.

About half the students stated that they would not or only rarely like to use smartphones due to their (high) potential for distraction. Another part endorses the use of smartphones and doesn't see any issues with it.

Q4. What would be other advice you would give to teachers to make learning more interesting to you?

The response given most often was that students would prefer to be more engaged and included in the teaching. Some examples that students <u>didn't like</u> included teachers talking too much and making the lessons a passive information transfer for the students, being too serious all the time and strictly following the curriculum. Positive examples that students would <u>like to see more of</u> are more movement, practical examples, games and discussions, group work, going outside, teachers giving tips for effective learning and being open for questions and for teachers to take more training in the areas of technology and giving motivating lessons.

One student mentioned the wish for teachers to take more training in the areas of technology and give motivating lessons.

Q5. What do you think is the biggest obstacle for introducing solutions you proposed in the previous question?

The answers to this question were very diverse. Examples mentioned more than once are legal requirements and lack of motivation and time.

Q6. Do you think any of your present teachers would be a good Mentor to you – meaning a person who rather supports you in developing your future pathway rather than being the transmitter of knowledge?

8 out of 15 students answered this question with yes, 1 with maybe and 6 with no.

Q7. If you were to choose which topics of the MENTOR pedagogy you would like your teachers to pursue, if they were available online and for free, what would they be:

• strengthening self motivation of the teacher / student;





- discovering and managing talents of the teacher / student;
- team building and leadership at school, in the classroom;
- digital tools in school enhancing inclusive education;
- school's role in circular economy, practical environmental education;
- cooperation between school and the external environment, particularly employers.
- strengthening self motivation of the teacher / student was mentioned most often (80%)
- discovering and managing talents of the teacher / student (60%)
- team building and leadership at school, in the classroom (40%)
- digital tools in school enhancing inclusive education (40%)
- school's role in circular economy, practical environmental education (30%)
- cooperation between school and the external environment, particularly employers (40%)

#### Summary

It's noteworthy that time, motivation of teachers and students and legal requirements or an outdated curriculum are mentioned as obstacles several times:

- lack of time of teachers for talking with them about their individual talents and strengths
- self-motivation of teachers and students is seen as something that should be pursued by teachers
- legal requirements prevent teachers from making lessons more interesting
- an outdated curriculum is mentioned as one reason why "useless things" are in the curriculum

According to the teacher's survey, 80% of teachers use ICT at least once a week. An obstacle for using ICT at school according to the students that was mentioned several times was the lack of knowledge about new technologies by some teachers.

What advice do students give to teachers to make learning more interesting to them? Students stated that they would like to be more engaged and included in the teaching, being more active themselves in the lessons in contrast to passively receiving information by the teacher. Humor is appreciated and some possible deviation from the curriculum.





Students would like for their lessons to be motivating, more playful, active, practical, with group work, discussions and receiving tips for effective learning by their teachers.

Along with the perceived lack of knowledge about new technologies by their teachers, students wish for teachers to take more training in the areas of technology.







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# Annex 1: Surveys for Teachers

We are starting the Mentor 2.0 project, which aims to create digital solutions available for teachers in 5 countries: Poland, Spain, Italy, Austria and Greece. Thanks to Mentor 2.0, teachers will be able to strengthen their workshop so that they come closer to acting as mentors for their students. We invite you to co-create with us modern methods of supporting educators!

The survey is anonymous and will take approximately 15 minutes:

- 1. You are a teacher?
  - a. Yes
  - b. No
- 2. As a teacher, what support do you need the most in terms of developing students' transversal (soft) competences such as critical thinking, innovative, reflective, communication skills, collaboration, internal motivation, perseverance, leadership?
- 3. Could you identify your strengths and/or any particular talents that distinguish you in your role as a teacher?
  - a. Yes
  - b. No
- 4. If you ticked "Yes" in the previous question, provide a minimum of three examples:
- 5. If you ticked "No" in the previous question, what talents/strengths would you most like to develop in yourself as a teacher? Name at least three:
- 6. During the last year, have you participated / participated in training courses on building student teams, working in groups, or managing the classroom?
  - a. Yes
  - b. No
- 7. If you ticked "Yes" in the previous question, please provide the names of the training or topics
- 8. On a scale of 1 to 10 (where 1 is the least and 10 is the most), indicate to what extent you need to develop to effectively manage student teams:

0	1	2	3	4	5	6	7	8	9	10	
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I don't need it at all

I need it very much







9. On a scale of 1 to 5, where 5 is the highest value and 1 is the lowest, indicate what you think should be developed in students first?

	1	2	3	4	5
understanding the world of values (such as solidarity,					
truthfulness) and pointing to models of behavior					
building social relations based on mutual respect					
building students' self-esteem based on strengths					
student's ability to build intrinsic motivation					
creativity, innovation and entrepreneurship					
respect for the environment and active pro-ecological attitudes					
the ability to recognize and further develop individual					
talents					
intercultural understanding, tolerance and openness to					
changes					

## 10. Other, what?

11. On a scale of 1 to 5, where 5 is the highest value and 1 is the lowest, indicate what, in your opinion, should be the most important in everyday work with students?

	1	2	3	4	5
preparing for competitions					
improving relationships with peers, improving cooperation skills					
increase student self-esteem					
strengthening of motivation					
developing effective learning skills and eliminating learning failures					
skills development in educational projects					
implementation of the core curriculum					
creating a school community					

#### 12. Other, what?

- 13. Please indicate examples of mutual support and teacher learning that you use because you find them effective and necessary: (Select as many answers as you like):
  - a. developing curriculum work plans







- b. developing lesson plans
- c. preparation of teaching materials
- d. test development
- e. peer observations
- f. joint project management
- g. exchange of experiences
- h. mutual motivation
- i. sharing the knowledge gained during the training
- j. disseminating examples of good practice
- k. exchange of materials and teaching aids
- I. jointly organizing and conducting activities (trips, contests, events)
- m. exchange of information about students and class teams
- 14. How often in your lessons do you use ICT (information and communication technologies), e.g., use of educational platforms, provide students with links to additional teaching content? (Choose one answer)
  - a. every day
  - b. once a week
  - c. once a month
  - d. less frequently than once a month
  - e. I do not reach for such solutions
- 15. In which context would you most likely like to use ICT in your lessons?
- 16. In your opinion, does the school equip students with practical knowledge and skills needed to choose the educational and career path?
  - a. Yes
  - b. No
- 17. If you ticked "Yes" in the previous task, list which ones:
- **18**. Do you do practical environmental education projects at school, such as discussing with students how to use less paper in your lessons?
  - a. Yes
  - b. No
- 19. If you ticked "Yes" in the previous task, provide examples:
- 20. Is your school making strategic changes to enter a closed loop economy i.e., waste reduction, recycling, electricity and water consumption, environmental education, renewable energy, reuse of used school materials?
  - a. Yes







- b. No
- 21. Justify your choice
- 22. Does your school cooperate with companies potential employers of your students?
  - a. Yes
  - b. No
- 23. If you marked "Yes" in the previous task, provide an example:
- 24. If you marked "Yes" in the previous question, do you think students are aware of this collaboration?
  - a. Yes
  - b. No
- 25. What kind, in your opinion, should be a teacher-mentor educator who in her/his work focuses more on supportive participation in students' development and less on transferring knowledge?
- 26. Would you like to improve your teacher's skills as a mentor?
  - a. Yes
  - b. No
- 27. If you marked 'Yes' in the previous question, please explain the relevance to your daily work with students and what tools would be most useful to you:
- 28. If you marked "No" in the previous question, please explain why:







# Annex 2: Surveys for primary school students

Hello! 😊 Can you tell us what your school is?

The survey is anonymous and takes about 15 minutes. We thank you very much

- 1. How are you feeling today?
  - a. Happy
  - b. Sad
- 2. How old are you?
- 3. Are you a primary school student in grades 1-3?
  - a. Yes
  - b. No
- 4. What grade are you in?
  - a. Class 1
  - b. Class 2
  - c. Class 3
- 5. Do you like going to school?
  - a. Yes
  - b. No
- 6. What I like most about school is:
  - a. Teachers
  - b. Classmates
  - c. Lessons
  - d. Playground
  - e. Additional activities
- 7. What I like the least about school is:
  - a. Teachers
  - b. Classmates
  - c. Lessons
  - d. Playground
  - e. Additional activities
- 8. Do you like your teachers?
  - a. Yes
  - b. No
- 9. My teachers:
  - a. They help me with my homework
  - b. They won't help me with my homework.
- 10. Next year I want to have the same teachers:
  - a. Yes
  - b. No
- 11. The lessons are:







- a. Funny
- b. Boring

12. At school I want to do more activities outside of class (e.g. on the playground):

- a. Yes
- b. No

13. How many stars you give to your school?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5







# Annex 3: Survey for Lower secondary school students

We are starting the Mentor 2.0 project, which is to improve teaching in schools in Poland, Spain, Italy, Austria and Greece. Also, thanks to your help, we want teachers to focus more on supporting students than on imparting knowledge. We appreciate your help!

The survey is anonymous and will take approximately 15 minutes to complete. We kindly ask for honest answers:

- 1. Are you studying in grades 4-8??
  - a. Yes
  - b. No
- 2. Enter how often the teachers give you tips on how to learn effectively: (choose one of the following)
  - a. once or several times a week
  - b. once a month or more frequently
  - c. less than once a month
  - d. never
- 3. If you indicated that you were getting tips/directions, choose which: (select any number)
  - a. Methods for better memorization
  - b. Creating associations
  - c. Create good notes
  - d. Learn how something works in practice
- 4. What do you miss the most in order to learn effectively? (Choose any number)
  - a. Motivation
  - b. changes in teachers' attitudes
  - c. to discuss teaching techniques
  - d. help if I don't understand or know something
  - e. forbearance of teachers
  - f. thinking outside the box by teachers
  - g. concentration
  - h. I don't know
  - i. other factors, which?
- 5. Are you eager to take part in lessons? (Choose one answer)
  - a. All
  - b. the majority
  - c. half
  - d. less than half
  - e. none







- 6. What / who motivates you to learn? Choose 3 main motivators:
  - a. knowledge, useful content
  - b. willingness to pass
  - c. good work in the future
  - d. sentence for studies
  - e. parents
  - f. interesting lessons
  - g. ambitions
  - h. cool teacher
  - i. other students
  - j. school subjects I like
  - k. nothing
  - I. If something else, what?
- 7. What demotivates you to learn? Choose the 3 main reasons for demotivation:
  - a. getting up early
  - b. learning useless things
  - c. pressure of possible failure
  - d. the ability to do something that interests you more
  - e. boring school subjects
  - f. the shortcomings that follow you
  - g. repetition of topics in subsequent classes
  - h. the fact that you are judged for everything
  - i. the need to study subjects that you don't like
  - j. getting bad grades despite studying
  - k. material congestion
  - I. the attitude of peers
  - m. teachers' comments
  - n. little free time
  - o. too much homework
  - p. nothing
  - q. If something else, what?
- 8. Do the teachers talk to you about your strengths / talents and how to develop them?
  - a. one teacher
  - b. two or three teachers
  - c. more than three teachers
  - d. no teacher
- 9. During lessons, you have the opportunity to: Choose as many answers as you want
  - a. ask questions







- i. never
- ii. less than once a month
- iii. less than once a week
- iv. more than once a week
- v. daily
- b. take visual (mind map) notes
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- c. participate in the discussion
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- d. work in groups and pairs
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- e. work independently
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- f. express your opinion on the topics discussed during the lesson
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- g. Submit own ideas and implement them with the help of teachers
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week







- v. daily
- h. use of the computer and the Internet in the performance of classroom assignments
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- i. use a smartphone for learning purposes
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- 10. During the lesson, the teachers give you tips on how to: (Choose any number of answers)
  - a. Review important content
  - b. Remember important information
  - c. Take notes that are useful for you
  - d. Use your strengths to learn
  - e. How to find the necessary knowledge on the Internet
  - f. Give no hints
- 11. How do you usually feel when you are assessed? Choose the descriptions that best suit you:
  - a. I still want to learn
  - b. I decide to improve
  - c. losing motivation to continue studying
  - d. I still don't know what to do/correct
  - e. I know what to improve and how to do it
- 12. How do teachers motivate you and create a learning atmosphere? Choose the 3 most common ways:
  - a. when they conduct the lesson in an interesting way
  - b. when they answer the questions asked by exploring the topic
  - c. when they praise you when you succeed?
  - d. by saying that the topic will be related to future lessons
  - e. I don't know
  - f. They don't motivate me
  - g. differently, how do they motivate you?
- 13. Thanks to my school, I can: (Choose any number of answers)
  - a. get involved in environmental actions and events







- b. participate in volunteering
- c. present my own talents, talents and / or strengths
- d. implement my ideas
- e. participate in social projects
- f. participate in ecological projects
- g. participate in projects developing cooperation and communication skills
- h. participate in projects involving local entrepreneurs and other companies
- i. none of the above
- j. other:
- 14. If you could change something about your school, what would it be?
  - a. learning useful things
  - b. classes starting at a later hour
  - c. more conversations and activities on different life paths
  - d. more outdoor activities and experiments instead of sitting at the desks
  - e. teachers' approach to students
  - f. more interschool and international projects, trips and initiatives
  - g. grading system
  - h. ways of teaching
  - i. I wouldn't change anything
  - j. If something else, what?
- 15. What would you wish for your teachers?







# Annex 4: Survey for Upper-secondary school students

We are starting the Mentor 2.0 project, which is to improve teaching in schools in Poland, Spain, Italy, Austria and Greece. Also, thanks to your help, we want teachers to focus more on supporting students than on imparting knowledge. We appreciate your help!

The survey is anonymous and will take approximately 15 minutes to complete. We kindly ask for honest answers:

- 1. Are you a student in upper secondary education?
  - a. Yes
  - b. No
- 2. Enter how often the teachers give you tips on how to learn effectively: (choose one of the following)
  - a. once or several times a week
  - b. once a month or more frequently
  - c. less than once a month
  - d. never
- 3. If you indicated that you were getting tips/directions, choose which: (select any number)
  - a. Methods for better memorization
  - b. Creating associations
  - c. Create good notes
  - d. Learn how something works in practice
- 4. What do you miss the most in order to learn effectively? (Choose any number)
  - a. Motivation
  - b. changes in teachers' attitudes
  - c. to discuss teaching techniques
  - d. help if I don't understand or know something
  - e. forbearance of teachers
  - f. thinking outside the box by teachers
  - g. concentration
  - h. I don't know
  - i. other factors, which?
- 5. Are you eager to take part in lessons? (Choose one answer)
  - a. All
  - b. the majority
  - c. half
  - d. less than half
  - e. none







- 6. What / who motivates you to learn? Choose 3 main motivators:
  - a. knowledge, useful content
  - b. willingness to pass
  - c. good work in the future
  - d. sentence for studies
  - e. parents
  - f. interesting lessons
  - g. ambitions
  - h. cool teacher
  - i. other students
  - j. school subjects I like
  - k. nothing
  - I. If something else, what?
- 7. What demotivates you to learn? Choose the 3 main reasons for demotivation:
  - a. getting up early
  - b. learning useless things
  - c. pressure of possible failure
  - d. the ability to do something that interests you more
  - e. boring school subjects
  - f. the shortcomings that follow you
  - g. repetition of topics in subsequent classes
  - h. the fact that you are judged for everything
  - i. the need to study subjects that you don't like
  - j. getting bad grades despite studying
  - k. material congestion
  - I. the attitude of peers
  - m. teachers' comments
  - n. little free time
  - o. too much homework
  - p. nothing
  - q. if something else, what?
- 8. Do the teachers talk to you about your strengths / talents and how to develop them?
  - a. one teacher
  - b. two or three teachers
  - c. more than three teachers
  - d. no teacher
- 9. During lessons, you have the opportunity to: Choose as many answers as you want
  - a. ask questions
    - i. never







- ii. less than once a month
- iii. less than once a week
- iv. more than once a week
- v. daily
- b. take visual (mind map) notes
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- c. participate in the discussion
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- d. work in groups and pairs
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- e. work independently
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- f. express your opinion on the topics discussed during the lesson
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- g. Submit own ideas and implement them with the help of teachers
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily







- h. use of the computer and the Internet in the performance of classroom assignments
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- i. use a smartphone for learning purposes
  - i. never
  - ii. less than once a month
  - iii. less than once a week
  - iv. more than once a week
  - v. daily
- 10. During the lesson, the teachers give you tips on how to: (Choose any number of answers)
  - a. Review important content
  - b. Remember important information
  - c. Take notes that are useful for you
  - d. Use your strengths to learn
  - e. How to find the necessary knowledge on the Internet
  - f. Give no hints
- 11. How do you usually feel when you are assessed? Choose the descriptions that best suit

you:

- a. I still want to learn
- b. I decide to improve
- c. losing motivation to continue studying
- d. I still don't know what to do/correct
- e. I know what to improve and how to do it
- 12. How do teachers motivate you and create a learning atmosphere? Choose the 3 most common ways:
  - a. when they conduct the lesson in an interesting way
  - b. when they answer the questions asked by exploring the topic
  - c. when they praise you when you succeed?
  - d. by saying that the topic will be related to future lessons
  - e. I don't know
  - f. They don't motivate me
  - g. differently, how do they motivate you?
- 13. Thanks to my school, I can: (Choose any number of answers)
  - a. get involved in environmental actions and events
  - b. participate in volunteering







- c. present my own talents, talents and / or strengths
- d. implement my ideas
- e. participate in social projects
- f. participate in ecological projects
- g. participate in projects developing cooperation and communication skills
- h. participate in projects involving local entrepreneurs and other companies
- i. none of the above
- j. other:
- 14. On a scale from 1 to 6, determine at what level teachers in your school discuss with you the emergence of new professions and changes taking place on the labour market? (Where 1 is very low and 6 is very high level)
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5
  - f. 6
- 15. On a scale from 1 to 6, determine at what level your school prepares you to choose a field of study and choose a profession. (Where 1 is very low and 6 is very high level)
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5
  - f. 6
- 16. On a scale from 1 to 6, how often does your school undertake activities aimed at cooperation with employers? (Where 1 means that he does not take such actions, and 6 means that he engages them very often)
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5
  - f. 6
- 17. If you could change something about your school, what would it be? Choose the 3 most important in your opinion:
  - a. learning useful things
  - b. classes starting at a later hour







- c. more conversations and activities on different life paths
- d. more outdoor activities and experiments instead of sitting at the desks
- e. teachers' approach to students
- f. more interschool and international projects, trips and initiatives
- g. grading system
- h. ways of teaching
- i. if something else, what?
- j. I wouldn't change anything
- 18. What would you wish for your teachers?









