Examples of assessments and their evaluation in different subjects

With the paradigm shift that puts the learner at the center of the learning process and demands him to be active, learning methods need to change, and therefore evaluation methods as well. Specifically, evaluation directs the learning process. Therefore, in a virtual environment, we have the opportunity to apply innovative assessment methods that are more appropriate for testing higher levels of cognitive processes but also more stimulating for students.

The questions that may be asked may include linking content to one's own experiences, with the focus being on the learning process rather than the facts acquired. For example, in the Croatian language or in foreign languages, a link of a literary work to actual events in contemporary society may be required, and grammar implicitly checked in written or oral expression when writing a text describing one's own experience.

Students can do such tasks independently or in a team that also appropriately meets, coordinates and collaborates in a virtual environment. The result can be written work, a poster or a billboard, slideshow presentation, multimedia content, or a simulation in any of the computer programs. However, again the focus should not be on the final product but the learning process itself so students first submit an outline of the work, a research plan to which they receive feedback from their peers and the teacher. Before the final output is presented, there may be another step of presenting the work in a virtual classroom for evaluation but also so that students receive support and instructions for further work. Namely, without this kind of support students cannot be expected to deliver the expected outcomes independently. This is especially necessary for students who do not have prior experience in similar work methods.

In order to properly evaluate and validate such complex work (research, project, etc.) and thus provide useful feedback to students, evaluation sheets and other ways of describing criteria and evaluation elements should be applied. The criteria and evaluation elements should be explained and presented to the students before they start solving the task. More details about this can be found in Evaluation Guidelines which were adopted and published this year in the framework of curricular reform implementation, and evaluation elements are an integral part of the newly adopted curricula (2019).

In the following text you can read some examples from different subjects, and in the subject classrooms you can find examples for all subjects and educational levels.

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Nature and Biology

## Air, Water and Soil Characteristics

The example is linked to a video lesson: bit.ly/sastavisvojstvatla1dio
Subject outcome: Primary school Nature B.5.1. Student describes air, water and soil characteristics based on research in intermediate surroundings. Primary school Nature B.5.2. The student explains the interrelations between living conditions and living beings.

Activity outcome: The student describes the process of soil formation. Based on the research, the student describes the soil type according to the lightness and size of the particles. The student describes the impact of living beings on living conditions.

## Task:

Develop a graphical representation of soil formation
Determine the type of soil in one's own yard or in a flower pot
Answer the questions

## Guidelines for creating a task:

1. Create a graphical representation of the soil formation. Describe how water, wind, living beings affect the formation of soil
2. Conduct practical work to determine the soil type from the sample
3. Answer the three questions that were asked during the video lesson

The teacher, together with the students, analyzes the evaluation sheet which will be applied to evaluate what has been learned, which components are in the focus, and based on which criteria student's work will be evaluated. Students should be instructed to read the text related to the contents in the textbook.

## Evaluation sheet:

| COMPONENTS | Levels of criteria achieved |  |  |
| :--- | :--- | :--- | :--- |
| Selected key terms | $\begin{array}{l}\text { Sketches, symbols } \\ \text { graphically depict 6 or } \\ \text { more different terms }\end{array}$ | $\begin{array}{l}\text { Sketches, symbols } \\ \text { graphically depict 3-5 } \\ \text { different terms }\end{array}$ | $\begin{array}{l}\text { Up to 2 terms are } \\ \text { graphically depicted by } \\ \text { sketches, symbols }\end{array}$ |
| Concept relations | 4 | $\begin{array}{l}\text { There are more than 5 } \\ \text { links between concepts }\end{array}$ | $\begin{array}{l}\text { There are more than 4 } \\ \text { links between the } \\ \text { terms and the }\end{array}$ | \(\left.\begin{array}{l}The terms shown are <br>

linked, but no\end{array}\right]\)

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|  | and interdependence is clearly highlighted. 5 | interdependence is clearly highlighted. 3 | interdependence is indicated $2$ |
| :---: | :---: | :---: | :---: |
| Answering questions related to the video lesson | All three questions have been answered correctly 3 | Two questions have been answered correctly 2 | One question has been answered correctly 1 |
| Presentation of practical part of the task | Practical part of the task has been completed, the final result is depicted with a picture, sketch and description of how it was performed. <br> 4 | Practical part of the task has been completed, the final result is depicted with a picture or sketch without description of how it was performed | The practical work has been completed and the final result has been recorded: what is the soil type. |

Note: If any of the components has not been achieved at the lowest expected level or it is not addressed, then the student is awarded 0 points.

If the student cannot perform the practical part of the task, then he or she should be given some other activity and 'practical part of the task' component is excluded from the evaluation. Then the scoring scale changes.

In evaluating the lessons learned, the following scale can be applied:

## -13-16 - excellent (5)

-10-12 - very good (4)
$-8-9-\operatorname{good}(3)$
-6-7 - sufficient (2)

- 0-5 - insufficient (1)


## Questions and Sentences

This takes place during two teaching hours and in five phases.
Phase 1 (prepared by the teacher and conducted with the students)
During the meeting, the teacher allows students to actively repeat the topic. Students should be given different forms of activities: additional reading text, games without traditional questions and answers,
but something like a Wordwall game. Finally, it is important for the teacher to highlight what the key terms, concepts and topics are.

Phase 2 (individual work)
Students are asked to make up ten questions individually. The criteria for asking questions, or the structure of the questions, is the following:

- The question with who or what
- The question with how
- The question with when
- Explanatory questions
- A question which requires to link two, three or more terms
- A sentence requiring the list (of terms/concepts)

There should be at least one question or request for each form, and there should be ten questions with requests in total. All the key terms stated by the teacher should be included in the question or an answer.

After they are written, answers in full sentences should be written down. The students then send their work to the teacher in the form of a photograph or in a digital record.

## Phase 3 (teacher work)

After collecting the students' work, the teacher analyzes the questions and answers and provides feedback. In the event of misconceptions, the student should be notified and instructed to play or perform some other activity which is applied during teaching.

Phase 4 (teacher preparation)
The teacher should prepare several sets of ten affirmative sentences. Each set should include all key terms which are extremely relevant to the topic. It is also possible to use some of the sentences from students' answers.

Phase 5 (individual work)
In the next lesson, each student gets ten sentences. A student selects seven out of ten sentences and performs the following:

- Three statements need to be agreed with and confirmed as true.
- Two statements need to be agreed with, and confirmed as true but under certain condition/s which need to be listed.
- Two statements need to be proven false and explained with arguments what is false.

Students can write their work in a OneNote notebook, a Class Notebook so that the teacher can observe student's work in real time. Once students have completed the tasks and submitted their work, evaluation may begin.

Evaluation sheet:

| COMPONENTS | Levels of criteria achieved |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of questions prepared | At least nine questions were prepared in line with the set criteria <br> 5 <br> 4 | to six tions were ared in line the set ria | Five to thr questions prepared i with the se | teria | Ten questions were prepared but the guidelines with regards to which words they should include were not followed 2 |
| Answering questions | For all questions an attempt to answers has been provided$3$ |  | For at least seven questions an attempt to answers has been provided$2$ |  |  |
| Sentence analysis | ```8 or 7 sentences were observed and correctly selected (true statements, conditional or corrected). 7``` | 6 or 5 sentences were observed and correctly selected (true statements, conditional or corrected). <br> 6 |  | 4 or 3 sentences were observed and correctly selected (true statements, conditional or corrected).$4$ |  |

If the criterion has not been listed in the sheet, scores are not attributed.
When evaluating learning outcomes, the following scoring may be applied:

- 15-13 - excellent (5)
- 12-11 - very good (4)
- 10-9 - good (3)
- 8-sufficient (2)
- 0-7 - insufficient (1)


## Evaluation of a small-scale research paper

Activity outcome: The student presents his / her research in accordance with the principles of preparing a report for a small-scale research paper.

Student task description: Design and conduct a short research and prepare a research report.

## Before research:

- prepare research questions and the expected results (hypothesis)
- prepare the outline of the research methodology (how the research will be conducted, what and how the research will measure, when it will be measured, what the control or replicate group will be measured with, and how the results will be recorded)
- plan safety measures when handling measuring instruments and conducting research

During the research it is important to:

- conduct careful and timely measurements
- regularly record the results in line with the research design

After the research it is important to:

- calculate the mean values of the results obtained
- display results in tables or graphs
- describe the research results presented
- explain the results obtained
- draw a conclusion in line with the expected answer to the research question
- prepare a report on the research in accordance with the evaluation sheet


## Research ideas:

1. Does the color of light affect the growth of plants?
2. Does aronia juice contribute to faster nail growth?
3. Does aspirin dissolved in water make cut roses stay fresh in a vase for longer?
4. Will the fish swim faster in warmer water?
5. Which senses developed in mammals?
6. What do ants feed on?
7. Does the temperature of the water affect the breathing rate of the fish?
8. Can one type of fruit have effect on the rot / maturation of another type of fruit?
9. How does physical activity affect blood pressure, heart rate, breathing intensity?
10. Does the type of music have effect on pet behavior?
11. How to make yeast from fruit?

## Evaluation sheet for small-scale student research paper

(evaluation of learning process and learning outcomes)

| COMPONENTS | LEVELS OF CRITERIA ACHIEVEMENT |  |  |
| :---: | :---: | :---: | :---: |
|  | Complete | Minor corrections necessary | Significant corrections necessary |
|  | (3 points) | (2 points) | (1 point) |
| Research Timeline | The report presents the research timeline in a detailed manner in line with the instructions what is to be done before, during and after research | The report presents the research timeline in line with the instructions what is to be done before, during and after research with minor errors | The report does not clearly present the research timeline in line with the instructions what is to be done before, during and after research and/or the instructions have not been followed completely |
| Introduction | The introduction includes essential background information on the chosen topic and a clearly and scientifically accurately formulated research question and / or hypothesis. | The introduction includes some of the necessary background information on the chosen topic and a clearly and scientifically accurately formulated research question and / or hypothesis. | The introduction includes only some of the necessary background information on the chosen topic and scientifically inaccurately formulated research question and / or hypothesis. |
| Work <br> Methodology | The work methods are appropriate in relation to the hypothesis and are correctly and accurately applied. | The work methods are only partially appropriate in relation to the hypothesis. | The work methods are not appropriate in relation to hypothesis or are incomplete. |
| Safety <br> Measures | The report explains and documents (photography) the safety measures that were applied during the research, or provides arguments why safety measures were not necessary. | The report describes, but does not explain in a detailed manner and/or document safety measures that were applied during the research, or it is not clearly argumented why safety measures were not necessary. | The report only lists safety measures that were applied during the research, or it is only stated that safety measures were not necessary. |

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| Presentation of collected data | The data is clearly presented and described (titled and labeled tables, titled columns / rows, correct measurement units in columns / rows, graphs numbered and titled with explanations, axes on graphs, and listed correct measurement units, listed short results important for confirmation / rejection of the hypothesis). | The data is mainly clearly presented and described with minor errors. | The data is unclearly presented and described with significant errors. |
| :---: | :---: | :---: | :---: |
| Discussion | All results obtained were commented and explained in the discussion, highlighting limitations, weaknesses or errors. Modifications have been proposed to improve the next research. | Only some of the data collected through research was discussed and explained and / or all the results were discussed with minor errors. | Only some of the data collected through the research was discussed and explained and / or most of the results were misinterpreted. |
| Conclusion | The conclusion is clear and accurate and based on the results of the research and confirms / rejects the hypothesis. | The conclusion is mostly correct and is largely based on the research results and involves a hypothesis. | The conclusion is incorrect and / or not based on the research results and / or does not include a hypothesis. |
| References (not necessary for primary schools) | Properly cited literature in the text (introduction, methods and discussion) and in the list of references at the end of the paper was used in the preparation of the report. | References were used in the preparation of the report, but were not completely accurately listed. | In the preparation of the report, references were incorrectly cited and / or partially cited in the text / at the end of the paper. |
| Notes: <br> If any of the components has not been achieved at the lowest expected leve not addressed then it is awarded 0 points. <br> For a positive grade, each component must be attributed at least 1 point. |  |  |  |

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> PRIMARY SCHOOL - points for grades: $19-21=$ excellent (5); $15-18=$ very good (4); $10-14=$ good (3); $8-9=$ sufficient (2); $>7=$ insufficient (1)

SECONDARY SCHOOL - points for grades: 21-24 = excellent (5); 17-20 = very good (4); 12-16 = good (3); 9-11 = sufficient (2); 0-8=insufficient (1)

Please, refer to additional evaluation examples in Biology .

## Mathematics

## Evaluation and validation of complex tasks sheet

- Students are given task with clear instructions what is expected from them (in line with the selected learning or activity outcome)
- Students are given the evaluation sheet based upon which they will be evaluated.

Example 1. Geometric drawing (Four characteristic triangle points) - an example of a sheet for evaluating the learned contents, a scoring scale for each grade with examples of graded student work.

Example 2. Lines (3rd grade) - the student, based on a given sample, independently creates the tasks and provides solutions for them.

Learning Outcome: MAT Secondary School B.3.9., MAT Secondary School C.3.7., MAT Secondary School D.3.2. Applying equation in lines.

Note to Teachers: The attached tasks with an evaluation sheet include all the lessons from the teaching unit Lines and can be used instead of a written knowledge assessment for that unit.

## Student task description

1.Specify the coordinates of two points $A$ and $B$ yourself, and then design $5-7$ subtasks such as the following:
a) Write the equation of the line $A B$ in explicit form.
b) Write the equation of the line $A B$ in implicit form.
c) Write the equation of the line $A B$ in segment.
d) Draw the line $A B$ and connect the points of intersection with the coordinate axes to the equations obtained. Explain the connection of these points and the particular forms of the line equations.
e) Calculate the triangle area which is cut by the line from from the coordinate axes.
f) Calculate the section length which is cut by the line from the coordinate axes.
g) Calculate the distance of this line from the starting point.
h) Determine the angle closed by the line $A B$ with the coordinate axes / $x$-axis / $y$-axis.
i) Determine the line equation which is symmetric to the given line on $x$-axis.
j) Determine the line equation which is symmetric to the given line on $y$-axis.
k) Determine the line quation which is symmetrical to the given line taking into account the origin of the coordinate system
I) Determine the line equation by point A parallel to the $x$ axis.
$m$ ) Determine the line equation by point $B$ parallel to the $y$ axis.
n) Determine the line equation through the origin that is parallel / vertical to the line $A B$.
o) ... be creative and feel free to think of something completely different related to the learning outcome!
2. Specify the coordinates of the three points $A, B$, and $C$ so that they determine the triangle $A B C$. Design 5-7 different subtasks for this triangle, such as the following:
a) Determine the line equation AB .
b) Determine a line parallel to the line $B C$ passing through point $A$.
c) Determine the line vertical to the line $A C$ passing through point $B$. What represents this line?
d) Determine the line equation on which the height from the point C lies.
e) Determine the equation of center of gravity from the point B.
f) Determine the angle measure of triangle ?BCA.
g) Determine the centerline of the line $A B$
h) Determine the centerline of the interior angle at the point $A$.
i) Determine the centerline of the exterior angle at the point B.
j) Determine the coordinates of the center of gravity / triangle orthocenter / circumcenter / circumcircle
k) ... be creative and feel free to think of something completely different related to the learning outcome!

Note: Tasks that are textually identical and only refer to different points are considered to be the same tasks, so avoid such repetitions. For example: Determine a line parallel to the line BC passing through the point $A$. and Determine a line parallel to the line $A C$ passing through the point $B$ are considered to be one and the same task.

The tasks that you have come up with need to be solved and delivered all together. You can check the solutions using GeoGebra (geogebra.org) or any other computer program which supports analytical geometry. Attach pictures (screenshots) to your work or sketch them by hand.

Your work will be scored and evaluated according to the attached evaluation sheet.

## Learning outcome evaluation sheet

| COMPONENTS | LEVELS OF CRITERIA ACHIEVEMENT |  |  |
| :---: | :--- | :--- | :--- |
|  | $\mathbf{3}$ points | $\mathbf{2}$ points | point |
| Task Design | Both tasks are well <br> designed and consist of | Both tasks are well <br> designed and consist of | One task is well <br> designed and consists |

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|  | seven and more different subtasks for each task | at least 5 (10-13 in total) different subtasks for each task | of at least 5 different subtasks or both tasks consist of 5-9 subtasks in total |
| :---: | :---: | :---: | :---: |
| Line Equation | When solving tasks, all three equation forms are correctly applied (implicit, explicit, segment). The conversion from one form to another is done without errors. | When solving tasks, two equation forms are correctly applied (implicit, explicit, or segment). | When solving tasks, only one equation form is applied (implicit, explicit, or segment) mostly correctly. |
| Apllication of segment equation line form | For points that are not on the coordinate axes, it determines the line equation, converts it into a segment form, and accurately calculates the length of the section or the area of the triangle that the line cuts between the coordinate axes. | Correctly calculates the section length or the area of the triangle that the line cuts between the coordinate axes using the segment form. | Line equation given in implicit or explicit form is converted correctly in segment form. |
| Verticality and parallelism | In a more complex task (for example, the height or triangle centerline), the student applies the verticality condition, selects the points of the required line, and applies the formula for the equation of line determined by the point and the direction coefficient. | Specifies the line direction coefficient which is vertical to the given one. Applies the formula for equation of line determined by the point and the direction coefficient | Specifies the line direction coefficient which is vertical to the given one. Applies the formula for equation of line determined by the point and the direction coefficient |
| Angle between two lines | Correctly calculates the angle measure between two lines or | Calculates the angle measure between two lines or the measure but with smaller errors. | Calculates correctly angle of line inclination. |

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|  | the measure of the <br> angle of a triangle. <br> Regarding the obtuse <br> angle, the student <br> takes into account it is <br> bigger than $90^{\circ}$. | Regarding obtuse <br> angled triangle, the <br> student diregards tha <br> fact that the angle is <br> bigger than 90 and <br> leaves the value <br> calculated from the <br> tangent of the angle of <br> two lines. |  |
| :--- | :--- | :--- | :--- |
| Distance of a point <br> from the line | Determines angle <br> centerline applying the <br> the symmetry <br> principle. Applies the <br> distance of a point <br> from the line. | Applies point-to-line <br> distance given in <br> explicit and segment <br> form. | Determines distance <br> from a set point for <br> implicit line form. |
| Graphical presentation |  |  |  |
| of a solution | For almost all tasks, the <br> student makes a <br> correct graphical <br> presentation of the <br> solution created using <br> a computer program or <br> sketched by hand. | For 6-12 tasks, the <br> student makes a <br> correct graphical <br> presentation of the <br> solution created using <br> a computer program or <br> sketched by hand. | For 2-5 tasks, the <br> student makes a <br> correct graphical <br> presentation of the <br> solution created using <br> a computer program or <br> sketched by hand. |
|  | Note: If any of the components has not been achieved at the lowest <br> expected level or it is not addressed, then the student is awarded 0 points. <br> If the student comes up with the solutions to the task that can be described <br> by multiple suggested descriptors, points from the highest-scoring <br> component are taken into account. |  |  |

Grade for student work grade is attributed based on the following scale:
-19-21 - excellent (5)
-15-18 - very good (4)
-11-14 - good (3)
-7-10 - sufficient (2)
-0-6 - insufficient (1)

This task is mostly appropriate for the assessment of Mathematical Communication element.
This type of "freestyle task" encourages originality and creativity, copying is minimized, and each student designs tasks according to his or her abilities and motivation.

## Evaluation and validation by application of digital tools for creating quizzes

## Socrative - https://socrative.com/

- It doesn't have to be real-time, but it can
- Students access via Student Login by typing in the room name (received from the teacher) and entering their name (for later result identification)
- Limitations for subject Mathematics: there aren't possibilities to display fractions and more complex expressions (index and exponents only). Possible solution: write the desired expressions in an equation editor and upload in Socrative as an image (see example)

Example 3. Real numbers 4 th grade secondary school
For evaluation implemented in Socrative, statistics is generated automatically for the whole class in Excel, it is possible to download pdf version of the test with the analysis of solutions for each task, as well as a pdf version of the answers for each individual student.

## Quizziz - https://quizizz.com/

Options:

- Ask single and multiple answer questions, shorten or extend the time for each answer
- Detailed statistics available in Excel - per student, per class, per question
- Setting up a quiz as an exercise or individual exercise, limiting the time for solving the quiz
- Possibility to create and share your own quiz, use someone else's quiz, or just a few questions from another quiz
- Possibility to insert images and mathematical characters other than the fraction line (if fractions are being tested, tasks are added as an image)

Example 4. Examples of using Quizziz tool in Primary School: Dividing Natural Numbers, Angle and Triangle

Microsoft Forms - https://forms.office.com/

- Microsoft Forms comes within the Office 365 and is used to to create simple surveys and quizzes
- All results that is, answers are available in real time immediately. Their analysis is presented graphically, and it is possible to export the results in an Excel file.
- Tasks given in digital form in Microsoft Forms are a quick, easy and effective way of getting feedback regarding the learning outcomes achievement level.
- Multiple possibilities of asking different types of tasks, because there is the possibility to create different types of questions (multiple choice, yes / no questions, short answers), and it can be inserted into OneNote. In such a way, it is visible which student has taken the quiz and cannot access the quiz again.

Example 5. Examples of applying Microsoft Forms tool in Primary School: Real Numbers, Divisibility of Natural Numbers, Sqaring, Calculating Percentages

Liveworksheets - https://www.liveworksheets.com/

- Options: creating a worksheet or workbook, converting an existing Word or Pdf document (exercise, exam) into an interactive worksheet (inserting text, linking concepts, choosing the correct answer...)
- Possibility for uploading worksheet for correction and limiting the time for completing the worksheet
- Sharing via links and user data created by the teacher for his class


## Example 6. Examples of using Liveworksheets in Primary schools: Angle and Triangle, Triangle Types and Area

## Evaluation and validation by application of GeoGebra tools (activities) and GeoGebra Groups

GeoGebra groups allow you to create a virtual clasrooms, monitor the performance of each individual student, and evaluate their performance. Detailed instructions for working with GeoGebra groups are available at www.geogebra.org/m/B8kRQjsJ.

The teacher creates a group and invites his / her students into it through an automatically generated code. Once created, a classroom group has indefinite possibilities. The group' purpose is to enable virtual collaboration, messaging between students and teachers, co- sharing materials, give tasks to students, submitting student papers, evaluating student papers, and providing feedback students. Tasks are given in the form of different GeoGebra activities: students can be asked to create a construction using available tools, solve a number of randomly generated tasks, answer open-ended or closed-ended questions, observe a property, write their own conclusion, solve a quiz in the form GeoGebra activities, etc.

Example 7. Examples of using GeoGebra groups for primary school
Example 8. Four characteristic triangle points

Developing digital educational resources for Mathematics, 7th and 8th grade

Suggestion of some topics:

- right triangular prism,
- two circles relationship,
- dodecahedron,

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- kaleidoscope,
- Thales' theorem,
- linear function graph

The process of creating student work is important and students should firstly be supported to perceive what the aspects of a good work are, how to upgrade one's work to enhance its quality, and advise them on how to present their work well and also engage the audience (classmates) in the presentation. In such a way, we can make students perceive the actions which we use when creating educational content or teaching, and at the same time we can learn something new from the students. We suggest that students are recommended one or more computer programs or online tools so that they can easily compare results and give technical advice.

Using these methods, we encourage students to be more independent and responsible for their results, we develop their organizational skills as they need to design their work, its contents, additional resources they will need, identify who will help them, what technologies and equipment they need. In order to create an interactive, digital, mathematical content, students need to use their creative expression skills, and when presenting it, speaking and presentation skills, which are often neglected in mathematics. In doing so, computers, the internet and mobile devices are used to create educational resources, thus gaining a meaningful and purposeful role in the education process, while transforming students from mere consumers of content prepared by somebody else to creative and innovative producers.

Preferred elements in student work

- Explanations
- Examples
- Tasks
- Pictures
- Video
- Quiz
- Their own work (images, video, quiz)
- Examples which are not in the textbook
- Interactive content and images from GeoGebra
- Additional resources from other authors.

Work timeline

- Choosing a topic, "bidding" in a virtual class, mutual agreement of a three-member team
- After completing approximately $30 \%$ of the work, students post the outline of their work in a virtual classroom
- Classmates comment each other's work, provide suggestions for improvement, test interactive elements
- Guidance and feedback is also provided by the teacher
- Completing approximately $70 \%$ of the work is the second phase of posting and giving feedback
- When all work is completed, students post it and, if possible, present it via videoconference

|  | LEVELS OF CRITERIA ACHIEVMENT |  |  |
| :--- | :--- | :--- | :--- |
| COMPONENTS | 3 | 2 | 1 |
| Examples and <br> Explanations | Examples are well <br> written and <br> explained | The examples are well <br> written, but there are <br> minor errors in the <br> explanations | There are errors in <br> examples and <br> explanations |
| Task | Tasks are well <br> created, clearly <br> related to the topic, <br> and have solutions | Tasks have minor errors, <br> but they do not <br> significantly affect their <br> meaning or connection <br> with the topic | There are errors in <br> the tasks, but the tasks <br> can still be clearly <br> linked to the topic |
| Multimedia and <br> interactive resources <br> (Pictures, videos, quiz, <br> constructions in <br> Geogebra) | The work includes at <br> least 5 multimedia or <br> interactive resources <br> made by the author <br> and related to the <br> topic | The work includes at least <br> 3 multimedia or <br> interactive resources <br> made by the author and <br> related to the topic | The work includes at <br> least 1 multimedia or <br> interactive resource <br> made by the author <br> and related to the <br> topic |
| Additional resources | There are at least 3 <br> non-textbook <br> examples or tasks <br> listed or links to <br> different content <br> related to the topic | There are at least 2 non- <br> textbook examples or <br> tasks listed or links to <br> different content related <br> to the topic | There is at least 1 non- <br> textbook example or <br> task listed or link to <br> different content <br> related to the topic |

Note: If any of the components has not been achieved at the lowest expected level or it is not addressed, then the student is awarded 0 points.

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## Croatian language (CL)

# An example of evaluation of achieved learning outcome - primary school A.5.5 

## 5. grade

- Outcome is evaluated with the outcome - primary school A.5.4


## Outcome on activity level:

Student:

- Recognizes nouns in different cases in the text
- Differs adjectives in positive, comparative and superlative forms
- Writes e-mail applying knowledge on declension of the nouns and comparison of the adjectives
- Writes in accordance with orthography


## Task for evaluation of learning outcomes:

## Instructions for teachers:

Students are reading a text about Eiffel tower. The text is unknown, but it is possible to use a familiar text as a template. It is important that students have already achieved the learning outcomes that are to be validating in the task. In different types of tasks the students have already perceived nouns in cases and adjectives comparison. They have had exercises on writing e-mails. In this task the emphasis is on the achievement of outcome A.5.5, therefore the e-mail writing part of task will get fewer points. (Points have weights).

## Instructions for students:

1. Read the following text.

The most visited monument in the world for which tickets are charged - the Eiffel Tower - was built with the purpose of being an entrance vault at the 1889 World Exhibition held in Paris on the occasion of the centennial anniversary of the French Revolution. Situated near the River Seine at the Mars Field in Paris, this unique structure was built between 1887 and 1889 and was designed by the renowned engineer and constructor Alexandar Gustav Eiffel after whom the tower was named. Although the public experienced the construction of the tower in various ways, it is interesting to point out that at the time of its construction it was most criticized by famous artists and architects of Paris, who at that time certainly could not have assumed that the Eiffel Tower would eventually become one of the most recognizable buildings in the world. From the time of installation until 1930, the tower was the highest

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building in the world for about 40 years, and to this day, highest building in Paris, and second highest in France.

The Eiffel Tower, also known by nicknames such as "Parisian" or "iron" lady, consists of four lattice girders about 300 meters high, which are connected to the dome with three observation plateaus in a unique and elegant pyramidal structure. The total height of the entire tower is about 324 meters including the height of the antenna placed at the top of the building.

Today, the tower houses two restaurants, a weather station, a television and radio station, and at some point office of its creator, Mr Eiffel. It is estimated that more than 200 million people have visited the Eiffel Tower since its opening in 1889, making it the world's most visited ticket-paying building. This is why it is not surprising that there are more than 30 copies of the tower around the world today. (source: http://www.skole.hr/veliki-odmor/sirom-svijeta?news id=4963)
2. Imagine you can talk to MR. Eiffel. What would you have asked him? Write an e-mail to Mr. Eiffel and use following:
a) Three nouns from the text by choice, but use it in all seven cases
b) At least three out of five adjectives in superlative, positive and comparative.

In e- mail express your opinion regarding Eiffel tower. Suggest Mr. Eiffel what could he have changed in tower construction.

Your e-mail should have introduction, main part and end and written in accordance with grammatical and orthographical rules. Think back on how to write an e-mail and what its components are. In the end, review you e-mail, check for all components, underline given words (nouns and adjectives) and put nouns in right case (above the noun write case abbreviation).

## Evaluation sheet for the learning outcomes:

| COMPONENTS | LEVELS OF CRITERIA ACHIEVMENT |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{1 0 0}$ points | $\mathbf{6 0}$ points | $\mathbf{3 0}$ points | $\mathbf{0}$ points |
| Usage of the <br> nouns in different <br> cases <br> $\mathbf{3 0 \%}$ | The student used <br> all separated <br> nouns in seven <br> different cases. <br> Every given noun <br> was underlined <br> and put in correct <br> case. | The student used <br> nouns in four to <br> five cases and <br> underlined them. <br> The cases were <br> correct. / The <br> student used all <br> separated nouns <br> in different cases. <br> The cases were <br> correct for some <br> nouns (4-5). | The student used <br> three or four <br> nouns in different <br> cases, but without <br> underlining and <br> determining the <br> case. / The <br> student used <br> most of the nouns <br> in different cases, <br> but only for some <br> were determined | The component <br> has not been <br> achieved at the <br> lowest level or <br> has not been <br> addressed. |


|  |  |  | correct case (2 3). |  |
| :---: | :---: | :---: | :---: | :---: |
| Usage of positive and comparative in adjectives $30 \text { \% }$ | The student determined positive and comparative for all four adjectives. | The student recognized all four adjectives but for only two or three determined positive and comparative. | The student used two or three adjectives, but only in positive or in comparative. | The component has not been achieved at the lowest level or has not been addressed. |
| Usage of Croatian language $20 \text { \% }$ | E-mail didn't have grammatical or spelling mistakes or if did, there were one or two | E-mail had three to four grammatical and spelling mistakes. | E-mail had five or more grammatical and spelling mistakes. | The component has not been achieved at the lowest level or has not been addressed. |
| Structure and content $20 \%$ | E-mail had all components (recipient and forms of address, content, greetings, and signature). The content was in line with the subject. Student gave his/her opinion, referred to Mr. Eiffel, gave his/her suggestions and advices. | E-mail had most components (one or two are missing). Student gave his/her opinion, but without referring to Mr. Eiffel. There were no suggestions and advices. | E-mail had some components (title, addressing, greeting or signature were missing). Student didn't give his/her opinion, and suggestions and advice were poor. | The component has not been achieved at the lowest level or has not been addressed. |

Scoring:

- $85 \%-100 \%$ - excellent (5)
- $75 \%-84.99 \%$ - very good (4)
- $61 \%-74.99 \%-\operatorname{good}(3)$
- $50 \%-60.99 \%$ - sufficient (2)
- 0\% - 49.99\% - insufficient (1)

First or third grade of the secondary schools
An example of evaluation of achieved learning outcome - secondary schools A.1.5., A.1.4. and B.1.2. and B.1.4.

## Activity outcome:

Student:

- Differs types of phrases
- Determines grammatical connections between phrases
- Writes linked text in descriptive and narrative type according to the given
- Describes relations among characters in the novel Posljednji Stipančići


## Task for evaluation of learning outcomes:

Write a blog from Lucija Stipančić's perspective in which you will explain her relationship to her family members, her feelings, reflections about the problems she is dealing with. Support the understanding of the novel with arguments. The text should have at least 200 words and comply with grammatical and spelling standards. The text should contain properly formed independent and dependant clauses.

Fit appropriately:

- three examples of congruence
- three examples of conduction
- three examples of association.

| COMPONENTS | LEVELS OF CRITERIA ACHIEVMENT |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 100 bodova | 60 bodova | 30 bodova | 0 bodova |
| The character of Lucija Stipančić and her perspective of the events taken in the novel 30 \% | The text is in compliance with the given theme. The character of Lucija Stipančić is presented as well as relationships among family members and problems the character is dealing with. The | The text is partially written in accordance with given theme. The character of Lucija Stipančić is presented but relationships in the family are superficially depicted. The problems | The text is partially written in accordance with given theme. The character of Lucija Stipančić is presented superficially as well as relationships among family members. The | The component has not been achieved at the lowest level or has not been addressed. |

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|  | text shows understanding of the novel written by Novak. | character is facing are not precisely determined. | problems character is facing are not precisely determined. |  |
| :---: | :---: | :---: | :---: | :---: |
| Appropriate use of the phrases and sentences $30 \text { \% }$ | The student correctly applied all nine examples of default word relationships in the phrases in the text, and they are fully aligned with the context. Independent and dependant clauses are precisely and accurately shaped. | The student correctly applied five to seven examples of default word relationships in the phrases in the text, and they are partially aligned with the context. <br> Independent and dependant clauses are mainly precisely and accurately shaped. | The student coreectly applied three to five examples of default word relationships in the phrases which mainly are not in compliance with the context. <br> There are some independent and dependant clauses that are precisely and accurately shaped. | The component has not been achieved at the lowest level or has not been addressed. |
| Structure of the text $15 \%$ | The text has a clear three-part structure and each part of the structure is coherent. | The text has a clear three-part structure but the information in some part of the text is not systematically distributed. | The text has partial three-part structure but the text is not coherent. | The component has not been achieved at the lowest level or has not been addressed. |
| Descriptive and narrative discourse $15 \text { \% }$ | The text appropriately alternates descriptive and narrative parts written in accordance with the characteristics of descriptive and narrative discourse. | The text partially applied the characteristics of descriptive and narrative discourse. | The text applied the characteristics of descriptive and narrative discourse | The component has not been achieved at the lowest level or has not been addressed. |
| Compliance with the orthography | The text is fully in compliance with the spelling | The text contains three to five mistakes. | The text contains six to nine spelling mistakes. | The component has not been achieved at the |


| (spelling <br> standards) | standards or has <br> one or two <br> mistakes. |  | lowest level or <br> has not been <br> addressed. |
| :--- | :--- | :--- | :--- | :--- |
| $10 \%$ |  |  |  |

Scoring can be from the two elements of the evaluation as the achievement of the outcomes is assessed from both elements.

## Scoring:

- $85 \%-100 \%$ - excellent (5)
- $75 \%-84.99 \%$ - very good (4)
- $61 \%-74.99 \%-\operatorname{good}(3)$
- $50 \%-60.99 \%$ - sufficient (2)
- 0\% - 49.99\% - insufficient (1)


## English language

## 1. PRODUCTIVE SKILLS: WRITING AND SPEAKING

English - fifth grade
An example of evaluation of achieved learning outcome - primary school A.5.7. or A.5.4.
It is an example by which writing and speaking can be evaluated, therefore two outcomes and two sections have been offered. The likelihood is increased, due to the six guidelines that are offered. A student chooses three guidelines. It is highly unlikely that student is going to choose the same three guidelines.

In case of writing, the teacher assigns three different out of six offered guidelines to every student. (Students are familiar with the guidelines as well as with the section).

The assumption is that during class, students were evaluated from each of the six guidelines and received feedback for them; E.g. they drew their timetable, classified the rules in two columns can/can't (exit card), wrote dictation with the name of the clothes, listened and drew where the rooms were (on the left/right, downstairs/upstairs) and other evaluation methods for learning, as well as learning that checked the essentials.

When designing a task, the same components in the section should be validated regardless of guidelines students have chosen.

## Evaluation sheet for speaking skills

(According to the Reference if a student is being validated as excellent)
Activity outcome: The student describes his/her ideal school.

## Task description for the students:

Create a Power-point presentation/ graphic organizer/poster of your ideal school. Describe your ideal school in 40-60 words. You don't have to use all guidelines, choose at least three. Pay attention to the use of present tense, wording according to guidelines and spelling/pronunciation.

Guidelines:

1. Ideal timetable - school subjects (at least 6 school subjects / 5 days of the week; have got/haven't got)
2. Some special rules in my ideal school. (at least 6 rules; can/can't)
3. Teachers in my ideal school. (what they do / don't do)
4. Students clothes/uniforms (describe at least 4 items; wear/don't wear)
5. Ideal school lunch (at least 6 different dishes: what is never for lunch, what is always for lunch; have got/haven't got)
6. School map (at least 6 rooms in my school; there is/there are)

Evaluation sheet for speaking skills (evaluation of the learning outcomes)

| COMPONENTS | LEVELS OF CRITERIA ACHIEVMENT |  |  |
| :---: | :---: | :---: | :---: |
|  | 3 | 2 | 1 |
| Pronunciation | The student speaks the words clearly and accurately. If he makes a mistake, he corrects his speech on his own. | The student often misspelled the words, but on can understand what he is talking about. | The student misspelled most of the words and it is difficult to understand him. |
| Vocabulary | The student uses a wide range of vocabulary. Some mistakes do not affect the understanding. | The student is not using enough words; he is mainly using basic vocabulary. Mistakes in vocabulary occasionally affect the understanding of the text. | The student has difficulties in expressing and uses only basic vocabulary. Mistakes in vocabulary severely affect understanding of the text. |
| C.5.6. a) <br> The student uses visual tools as a support during the presentation. | The student has prepared adequate visual tools which follow the sequence of the oral presentation. | The student has prepared visual tools which do not follow all parts of the oral presentation and/or not entirely adequate. | The student has prepared visual tools which follow only part of the oral presentation and/or not entirely adequate. |
| Grammar | The student with minimum mistakes | The student uses Present simple | The student needs assistance when using |

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|  | uses Present simple <br> (affirmative, negative <br> form, plural; <br> there is/there are; <br> can/can't.) | there is/there are; <br> can/can't with <br> frequent mistakes. The <br> mistakes occasionally <br> affect the <br> understanding. | grammatical <br> structures. The <br> mistakes affect <br> understanding <br> severely. |
| :--- | :--- | :--- | :--- |

Note: If any of the components has not been achieved at the lowest expected level or the component is not addressed then it is awarded 0 points.

When evaluating the learning outcomes, following scoring can be applied:

- 11-12 - excellent (5)
- 9-10 - very good (4)
- 6-8 - good (3)
- 4-5 - sufficient(2)
- 0-3 - insufficient (1)


## THE SAME TASK; writing

The teacher assigns three guideline to each group to write (or using Odd wheel to make it more just), and everything else remains as in speaking. The students are writing in OneNote, Class notebook.

An example of evaluation of learning outcome - primary school A.5.7
Activity outcome: The student in writing part describes his ideal school.
Evaluation sheet for writing skills (evaluation of learning outcomes)

| COMPONENTS | LEVELS OF CRITERIA ACHIEVMENT |  |  |
| :---: | :---: | :---: | :---: |
|  | 3 | 2 | 1 |
| Spelling | The student has few mistakes in writing. | The student often makes mistakes in writing but it does not affect the understanding of the text. | The student constantly makes mistakes which affect the understanding of the text. |
| Vocabulary | The student uses a wide range of vocabulary. Mistakes do not affect the understanding of the text. | The student is not using sufficient words; mainly he is using basic vocabulary. The mistakes sometimes affect the understanding of the text. | The student has difficulties in expressing and uses only basic vocabulary. The mistakes affect the understanding of the text. |
| Grammar | The student with some mistakes uses | The student uses Present simple | The student needs assistance when using |

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|  | Present simple, <br> affirmative, negative <br> form, plural, <br> there is/there are; <br> can/can't. | there is/there are; <br> can/can't with <br> common mistakes. The <br> mistakes occasionally <br> affect the <br> understanding. | grammatical <br> structures. The <br> mistakes affect <br> understanding <br> severely. |
| :--- | :--- | :--- | :--- |

Note: If any of the components has not been achieved at the lowest expected level or the component is not addressed then it is awarded 0 points.

When evaluating the learning outcomes, following scoring can be applied:

- 9 - excellent (5)
- 7-8 - very good (4)
- 5-6 - good (3)
- 3-4 - sufficient (2)
- 0-2 - insufficient (1)


## ENGLISH LANGUAGE - first grade - secondary school

## Category for evaluation of writing skills

Activity outcome: The student writes an e- mail on last year events

## A description of student's task:

In 100-180 words, write an e-mail to your peer from a foreign country/city describing what you did last year (leisure, vacation, various activities, school..). Pay attention to the use of past tenses, vocabulary relating to the aforementioned topic, and the organization of the e-mail. Don't forget to format your email correctly. The credibility of the response is increased by the teacher specifying the content previously processed by the students. Be sure to include only the content from which the students were previously evaluated.

Evaluation sheet for writing skills (evaluation of the learning outcomes)

| COMPONENTS | LEVELS OF CRITERIA ACHIEVMENT |  |  |
| :--- | :--- | :--- | :--- |
|  | 3 | 2 | 1 |
| Grammar: Past Simple <br> Tense and Past <br> Continuous. | The student almost <br> always uses Past <br> Simple Tense and Past <br> Continuous correctly. | The student sometimes <br> makes mistakes when <br> using Past Simple <br> Tense and Past <br> Continuous. (five and <br> more mistakes) | The student often <br> missuses Past Simple <br> Tense and Past <br> Continuous. (more <br> than ten mistakes) |
| Vocabulary applied to <br> the given theme | The student uses <br> newer words and | The student uses new <br> words and expressions | The student uses only <br> elderly, basic |

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|  | expressions which <br> apply to the given <br> theme. The mistakes <br> do not affect the <br> understanding of the <br> written text. | with some mistakes <br> and/or does not use <br> enough new words and <br> expressions. The <br> mistakes often affect <br> the understanding of <br> the written text. | vocabulary. The <br> mistakes affect the <br> understanding of the <br> written text. |
| :--- | :--- | :--- | :--- |
| E-mail structure | It includes recipient, <br> title, addressing, main <br> part, greeting and <br> signature. | It includes three to four <br> requested e-mail <br> elements. | It includes two or less <br> e-mail elements. |
| Note: If any of the components has not been achieved at the lowest expected level or the component <br> is not addressed then it is awarded 0 points. |  |  |  |

When evaluating the learning outcomes, following scoring can be applied:

- 9 - excellent (5)
- 7-8 - very good (4)
- 5-6 - good (3)
- 3-4 - sufficient (2)
- 0-2 - insufficient (1)


## 2. RECEPTIVE SKILLS: LISTENING AND READING COMPREHENSION

Socrative enables control of two receptive skills in primary and secondary school. The teacher sends the text for students to read or listen and afterwards they solve true/false tasks, multiple choice or short answer questions. Students have enough time to read/listen to the text two or three times.

## Credibility of the response

The teacher prepares more tasks than students are going to solve, e.g. 20, and students are going to solve only ten. Giving the fact that only Socrative PRO provides the option of opening more than one room from one account, the teacher can write to students in advance which part to solve e.g. one group solves tasks from one to ten, other uneven tasks, third even tasks, fourth from eleven to twenty.

The teacher monitors his students' responses in real time; they choose student-paced option in which students move through question on his own.

## Classroom teaching

## First grade - writing

## Outcome:

- Primary school, Croatian language A.1.4. The student writes in formal handwriting letter, words I short sentences in accordance with the spelling rules.


## Activity outcome:

The student writes words and sentences with letters he has learnt.

## Task:

Students listen to audio recordings of short sentences spoken by the teacher. After listening to each sentence, the students write a spoken sentence. Thereto, at the end of the sentence, they determine and write a sentence mark independently.

Students have a template in front of them with several sentences without a sentence mark they prescribe, and they determine the sentence mark themselves at the end of each sentence.

|  | $\mathbf{3}$ points | $\mathbf{2}$ points | $\mathbf{1}$ point |
| :---: | :--- | :--- | :--- |
| Punctuality | All words are written <br> accurately. | Several words are <br> misspelled. | A lot of words are <br> misspelled. |
| Sentence mark | The student puts <br> correct sentence mark <br> at the end of the <br> sentence. | The student sometimes <br> put incorrect sentence <br> mark at the end of the <br> sentence. | The student does not <br> put or puts incorrect <br> sentence mark at the <br> end of the sentence. |
| Letters form and size | The letters are in <br> correct form, and the <br> same size. | All letters are not in <br> correct form. Some <br> letters are not the <br> same size. | Most of the letters are <br> neither in correct form <br> nor the same size. |

When evaluating the learning outcomes, following scoring can be applied:

- 9 - excellent (5)
- 7-8 - very good (4)
- $5-6-\operatorname{good}(3)$
- 3-4 - sufficient (2)
- 0-2 - insufficient (1)


## Second grade- writing answers to questions about the text

## Subject outcomes:

- Primary school - Croatian language A.2.3. The student reads short texts thematically appropriate to the student experience, linguistic development and interests.
- Primary school - Croatian language A.2.4. The student writes letters, words and short sentences using school handwriting in accordance with language development


## Activity outcomes:

The student reads short text and answers questions about the text in writing.

## Task:

The student reads independently shorter text (optional: listens to the teacher's audio recording). After reading the text, student writes the answers to the questions asked. It is important that for each answer he writes a complete sentence, writes a spell of letters and puts an exact mark at the end of the sentence.

| COMPONENTS | 3 points | $\mathbf{2}$ points | $\mathbf{1}$ point |
| :---: | :--- | :--- | :--- |
| Writing answers about <br> the text | Independently and <br> accurately answers the <br> questions in full <br> sentence. | Accurately answers the <br> questions, but with one <br> or two words. | Answers to the <br> questions are not <br> accurate or are <br> incomplete. |
| Sentence marks | At the end of every <br> sentence writes <br> accurate sentence <br> mark. | Sometimes forget to <br> put the sentence mark <br> at the end of the <br> sentence. | Forgets to put sentence <br> mark. |
| Handwriting | Accurately forms and <br> connects letter in the <br> notebook grid. | Mainly forms and <br> connects letters in the <br> notebook grid. | Most of the letters are <br> not accurately formed <br> or connected in the <br> notebook grid. |

When evaluating the learning outcomes, following scoring can be applied:

- $9-$ excellent (5)
- 7-8 - very good (4)
- 5-6 - good (3)
- 3-4 - sufficient (2)
- 0-2 - insufficient (1)


## Third or fourth grade - Creating a poster on a given topic

## Activity outcome:

- The student creates a poster on a given topic.


## Task:

To create a poster

## Third grade

Create a poster about your homeland (suggestions: position on the map, weather, water, plants, animals, past, customs, cultural and historical sites, economy)

## Fourth grade

Create a poster about the features of the lowland region.
It is important that everything is clearly and accurately written on the poster; pictures should present lowland region and that everything looks harmoniously and pretty. Pay attention to the visibility and size of the letters.

|  | 3 points | 2 points | 1 point |
| :---: | :---: | :---: | :---: |
| Content of the poster | The poster is all <br> accurately written. <br> Everything is correct <br> and interesting. | The poster has parts <br> inaccurately written. | The poster has parts <br> that are not related to <br> the theme. |
| Pictures on the poster | Then poster is <br> interesting due to the <br> pictures put on it. | The poster is crowded <br> with pictures or is <br> lacking some. | The pictures on the <br> poster are not related <br> to the theme. |
| Visibility of the poster | Due to the letters, <br> amount of text and <br> pictures the poster is <br> nice and pretty. | The poster contains <br> different forms of <br> letters, too much or <br> too many text and <br> pictures, so it is vast. | The content on the <br> poster is vast and <br> untidy. |

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When evaluating the learning outcomes, following scoring can be applied:

- 9 - excellent (5)
- 7-8 - very good (4)
- $5-6-\operatorname{good}(3)$
- 3-4 - sufficient (2)
- 0-2 - insufficient (1)

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## Music

## The student describes instruments by listening and classifies them using digital tools

The example of the task is applicable for evaluation in fifth, sixth and seventh grade with adjustments.
The groups of musical instruments within the symphony orchestra are thought from fourth to seventh grade of primary school (electronic musical instruments are thought in eighth grade) therefore it is possible to adjust the task so students can cover groups of musical instruments, different musical instruments within one group, types of voices or musical ensembles.

This task controls the achievement of learning outcomes A.5.3. and A.5.4. in fifth grade primary school, contents for sixth, seventh and eighth grade.

## Fifth grade:

- Primary school Music- A.5.3. The student distinguishes plucked string and bowed string instruments, groups of instruments, musical ensembles and orchestras and observes the performance of the musical instruments. (He distinguishes sound and shape of string instruments. Associate instruments with a certain group.)
- Primary school Music - A.5.4. When listening music, the student distinguishes vocal, instrumental and vocal-instrumental music and various musical ensembles.

The task can adapt in order to evaluate the achievement of the learning outcome for primary school Music A.5.2. The student distinguishes various types of voices and observes its performance.

## Sixth grade:

- Subject area - Listening and learning music - musical instruments (keyboard and string); with adjustment it is possible to evaluate both types of voices and musical ensembles.


## Seventh grade:

- Subject area - Listening and learning music - musical instruments (woodwind and brass, percussion instruments).


## Task for evaluation of the learning outcome:

Activity outcome: the student describes musical instruments by listening examples and put them in certain groups using digital tools.

## Task description:

In the Kahoot digital tool (or any other tool the students used) prepare a music quiz on the knowledge of the shape and sound of the instruments (depending on the class, specify which instruments/types of
voices/musical ensembles will be represented). The quiz should include musical examples illustrating the sound of instruments (voices/compositions) and photos showing their shape.

After preparation, share the quiz with the teacher and solve the other students' quizzes.

|  | Student: |
| :--- | :--- |
| excellent (5) | Lists accurate information in the quiz both when shaping questions and solving them. <br> Recognizes all musical examples and describes most of them accurately. <br> Uses appropriate musical examples and photographs when creating the quiz. <br> Performs all tasks in the estimated time. |
| Very good (4) | Lists most of the accurate information in the quiz bot when shaping questions and <br> solving them. <br> Recognizes most of the musical instruments and describes most of them accurately. <br> Mostly uses appropriate musical examples and photographs when creating the quiz. <br> Performs all tasks in the estimated time. |
| good (3) | Lists partially accurate information when creating the quiz (information is more <br> accurate when shaping the question than solving them). <br> Recognizes small part of the musical instruments and describes only half of them. <br> Uses small number of certain musical examples and pictures when creating the quiz. <br> Performs half tasks in estimated time. |
| sufficient (2) | Lists few accurate information in the quiz both when shaping the questions and solving <br> them. <br> Recognizes few musical examples in the quiz. <br> Uses small number of appropriate photographs when creating the quiz without <br> musical examples or with inappropriate examples. <br> Performs less than half tasks in estimated time. |

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## Art of music

## The student explores local music and creates essay based on the research results

## Outcomes/part of outcome achieved:

## First grade:

- Secondary school Art of Music A.1-4.3. When listening the student recognizes and analyses characteristics of musical periods and musical directions and genres
- Secondary school Art of Music C.1-4.2. Describes the contact with music in authentic, customized and virtual environment, using specific number of terms and describes shape of his musical preferences.
- Secondary school Art of Music C.1-4.3. The student describes the historical development of art of music.

Task for second, third and fourth grade can be adapted in order for students to explore baroque and classic period in second grade; third grade romanticism and fourth different types of musical directions and genres of $20^{\text {th }}$ and $21^{\text {st }}$ century.

Outcome: The student explores the music in his homeland and creates an essay.

## Task description:

Based on several different verified sources, explore the music of one (or more) significant development period in the history of your homeland. You can choose the entire musical-style period or a specific period of time (e.g. 70s in Zagreb). According to the results you get, write a short essay. In the introduction, describe the features of the music at the time, then focus in the central part on the concrete composers and performers, and in the final part, use the results of the research to shape the stimulating message to future generations of musicians. In the central part it is necessary to include musical examples (or fragments, where necessary) that you will analyse in such a way that you will determine the type of music (classical, traditional, popular), musical type (or shape, depending on the example), ensembles, musical syllable, tempo and dynamics (and other, you feel it is important to highlight).

|  | Student: |
| :--- | :--- |
| excellent (5) | Implements agreed research plan. <br> Correctly uses and states every used sources of research. <br> Substantially connects all parts of an essay. <br> Shapes the message at the end of an essay based on the research results. <br> Uses musical examples in adequate places within the content. <br> Analyses all musically expressed components, most accurately. |

Ministarstvo
znanostii
obrazovanja

| Very good(4) | Implements agreed research plan in most part. <br> Correctly uses and states most of the used sources of research. <br> Substantially connects most parts of an essay. <br> Shapes the message at the end of an essay mainly based on the research results. <br> Usually uses musical examples in adequate places within the content. <br> Analyses most musically expressed components, most accurately. |
| :--- | :--- |
| good (3) | Implements agreed research plan in some parts, or misses certain steps. <br> Uses small number of unverified sources and lists them partially. <br> Partially connects parts of an essay (ads parts not related to the theme). <br> Shapes the message at the end of an essay partially based on research results. <br> Sometimes uses musical examples in adequate places within the content. <br> Analyses some of the musically expressed components, partially correct. |
| sufficient (2) | Doesn't complete the research. <br> Mainly uses unverified sources and lists them incorrectly. <br> Writes an essay in free style without structure and with inappropriate content or <br> without it. <br> Shapes the message in a way it expresses personal opinion rather than research based <br> results. <br> Rarely uses musical examples in appropriate places, mostly as a sound effect. <br> Analyses some of the musically expressed components, partially correct. |

