

Choosing the right high school and major at the end of 8th grade

Title: Career guidance	Time: 2 hours
Subject: <i>Counselling and Personal Development</i>	
Aims: using computational thinking when having to make a career decision, such as choosing high school at the end of secondary school	General competence ¹ : 4. Taking decisions about further education and career by using information about self, education and occupations. Specific competence ² : 4.2 Developing a personal education and career plan.
Key CS elements: Decomposition; Pattern recognition; Abstraction; Algorithm design	
Age group: 14 years old students	
Learning situations: classroom	Activity type: counselling
Resources: high school websites, high school admission leaflet	
Learning development:	
Problem definition: How to choose the right high school and profile at the end of 8th grade/secondary school based on your high school placement grade, knowing your previous years' placement grade?	
I. Descomposition: we divide the problem into smaller and manageable segments.	
<ul style="list-style-type: none"> - What are the specific conditions (for vocational profiles) and the admission conditions from previous school years? - What is the distribution grade of the candidate? - If the grade is satisfactory, the student will choose the section according to personal preferences. - If the average is not satisfactory, the student will choose the section that will help him adapt later. 	
II. Pattern Recognition: (identification of common elements, similarities)	
Pupils finishing grade VIII choose the right secondary school and section according to certain criteria, such as:	
<ul style="list-style-type: none"> - knowledge of the admission procedure - the specific conditions and admission grades for a given section / high school in previous school years. 	

¹ According to the syllabus "Counselling and Personal development, grade 8", approved by order of the Minister of National Education No 3393 of 28 February 2017

² Idem

- the prospects offered by a particular section and high school.
- the choices of peers/friends or parents for a particular section and high school.

III. Abstraction: focusing on the essentials, eliminating non-essential details.

1. State the problem.
2. Identify alternatives.
3. Prioritise alternatives
4. Take the decision

IV. Algorithm design: (step-by-step resolution of the identified problem)

Step 1: Set the problem: choosing the right secondary school and field of study at the end of the 8th grade according to the grade distribution based on the statistics from previous years.

Step 2: Identify the alternatives:

- if the final grade allows, the student can choose any section from any high school in the country.
- if the grade point does not allow it, other conditions will be considered (distance from home, possible prospects of later adaptation etc.).

Step 3: The ranking of alternatives depends on:

- the grade of the placement
- the distance from home (e.g. a pupil who has a precarious material situation and whose parents cannot afford to pay for transport and accommodation so that he/she can attend a secondary school in another town will choose an educational establishment as close to home as possible, even if the educational programme of this secondary school may not contain a section suitable for him
- the choices of peers/friends or parents (e.g. a pupil for whom the social component is very important will opt for a secondary school/profile chosen by most of his/her peers/friends because he/she wants to be with them; if a pupil has a very authoritarian parent who thinks he/she knows best what is the best choice for his/her child, he/she will choose a secondary school/section regardless of

his/her wishes)

Step 4: Take the decision

-each student, at the end of 8th grade, fills out an option sheet with the section and high school codes according to their preferences.

-the distribution will be computerized according to his grade.

Assessment: analyzing the distribution statistics of 8th grade graduates

Expected results: optimal counselling of secondary school students to prepare them well in advance to get a higher school average, needed to be admitted to the desired section and high school

Notes: ISTE References